ASSUMING CITY AS A PLAYGROUND
SURVEY ON RECLAIMING DESIGN OF SOME ELEMENTS IN CITY FOR RESPONDING TO CHILDREN'S NEED OF SPONTANEOUS PLAY ACTIVITIES IN BUILT ENVIRONMENT

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SEPTEMBER 2014

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SURVEY ON RECLAIMING DESIGN OF SOME ELEMENTS IN CITY FOR RESPONDING TO CHILDREN'S NEED OF SPONTANEOUS PLAY ACTIVITIES IN BUILT ENVIRONMENT

A THESIS SUBMITTED TO
THE GRADUATE SCHOOL OF NATURAL AND APPLIED SCIENCES OF
ÇANKAYA UNIVERSITY

BY

MORSALEH RANJBAR MOGHADDAM

IN PARTIAL FULFILLMENT OF THE REQUIREMENTS FOR THE DEGREE OF
MASTER OF SCIENCE
IN
THE DEPARTMENT OF
INTERIOR ARCHITECTURE

SEPTEMBER 2014

Title of the Thesis : **Assuming City as a Playground Survey on Reclaiming Design of Some Elements in City for Responding to Children's Need of Spontaneous Play Activities in Built Environment.**

Submitted by **Morsaleh RANJBAR MOGHADDAM**

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This is to certify that we have read this thesis and that in our opinion it is fully adequate, in scope and quality, as a thesis for the degree of Master of Science.

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ABSTRACT

ASSUMING CITY AS A PLAYGROUND
SURVEY ON RECLAIMING DESIGN OF SOME ELEMENTS IN CITY FOR RESPONDING TO CHILDREND'S NEED OF SPONTANEOUS PLAY ACTIVITIES IN BUILT ENVIRONMENT

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September 2014, 86 pages

This thesis study was conducted for urban development and implementation of child-friendly design with considering initial needs of children for having spontaneous play in city wide. Study was conducted based on series of observations on unconstructed children's play in Ankara-Turkey and Tehran-Iran in 2013. Children's reciprocal responses toward physical environment were taken into consideration for setting forth design ideas for further constructions in Kızılay city center of Ankara. As far as play considered as a tool for children creativity, theoretical research has been made to recognize what kinds of play elements would be helpful for enhancing children's creativity through play practice. After All observations, questionnaires and theoretical research and some play ideas for the city scale has been developed, and have been exampled by images. Ideas were included reclaiming design of elements in urban setting

in its micro scale such as; bus station, pedestrian bridges, sidewalks and window shops for encountering public especially children with joy of play in immediate environment. Moreover, it was considered as a solution for eliminating children's domain segregation from public space in cities such as Tehran-Iran and Ankara-Turkey. In this study children were considered as infinite citizen of city by responding their needs to play as one of their fundamental and basic rights. Moreover, by reclaiming design of those units it is possible to influence on culture of children's outdoor play,and it would be a tool for creativity and enhancing children's sense of attachment toward their built environment while they have influential social interaction with their parents, caregiver and other society members.

Keywords: City, Children, Spontaneous Play Activity, Designed Play Activities, Built-Environment, Design, City Elements, City Attachment, Outdoor Play, Children's Domain, Culture of Play.

ÖZ

KENTİ BİR OYUN BAHÇESİ OLARAK DÜŞÜNMEK YAPILI ÇEVREDE ÇOCUKLARIN SPONTANE OYUN GEREKSİNİMLERİNİ KARŞILAMAK ÜZERE, KENTTE BAZI TASARIM ELEMANLARININ GELİŞTİRİLMESİ ÜZERİNE ARAŞTIRMA

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Eylül 2014, 86 Sayfa

Bu tez çalışması, kent çapında spontane oyun alanları oluşturmak üzere, çocukların gereksinimlerini saptayarak çocuk dostu tasarımların geliştirilmesi üzerinedir. Çalışma, 2013 yılında İran ve Ankara kentlerinde, çocukların kentte kendiliğinden geliştirdileri oyun oynama biçimleri ve gereksinimleri üzerine yapılan gözlemlerden yola çıkarak geliştirilmiş, çocukların fiziksel çevreye karşı geliştirdikleri davranışlar, Ankara, Kızılay için geliştirilen oyun alanlarının tasarlanmasında yolgösterici olmuştur.

Oyun, çocukların yaratıcılıklarını geliştirmek için de bir araç olduğundan, tasarımların bu yaratıcılığı teşvik etmek üzere hangi oyun elemanlarını içermesi gerektirdiği ile ilgili teorik araştırma yapılmış, çocuklarla ve ebeveynlerle anketler yapılmıştır.

Tüm araştırmalar, gözlemler ve anketler sonucu, kent ölçeğinde oyun tasarıları geliştirilmiş ve görsellerle örneklenmiştir. Tasarılar, otobüs durakları, yaya köprüleri, kaldırımlar ve mağaza vitirinleri gibi çocukların oynarken kamusal alan ile karşılaşacakları, kent yaşamına katılacakları mikro ölçekteki tasarılardır. Ankara-Türkiye, Tahran, İran örneklerindeki gibi çocukların kent yaşamından ayrılmasına çözüm olarak düşünülmüştür.

Bu çalışmada, çocuklar, kentin sonsuz yurttaşları olarak kabul edilip, en temel gereksinimleri olan oyunun kent mekanında karşılanması gerektiğinden yola çıkılmıştır. Böylelikle, hem çocukların dış mekanda oyun gereksinimleri karşılanacak, hem yaratıcılıklarında olumlu etkisi olacak hem de kendilerini yaşadıkları kente ait bireyler olarak kenti sahiplenmelerine ve kentliler ile sosyal ilişkiler gerçekleştirmelerine neden olacaktır. .

Anahtar kelimeler: Şehir, Çocuklar, Spontane Oyun Aktivitesi, Tasarlanmış Oyun Aktiviteleri, Yapılı Çevre, Tasarım, Şehir Elemanları, Şehire Ait Olma, Dış Mekan Oyun, Çocuk Çevresi, Oyun Kültürü.

ACKNOWLEDGMENTS

I would like to express my especial appreciation and thanks to my advisor Professor Dr. Ayşe Zeynep ONUR, you have been a tremendous mentor for me. I would like to thank you for encouraging my research and for allowing me to grow as a research scientist. Moreover; I would like to thank head of department of Interior Architecture Professor Dr. Arda DÜZGÜNEŞ, and my instructors not only in department of Interior Architecture but also in both departments of Architecture, and City and Regional Planning in Çankaya University for supporting my interdisciplinary survey. I would like to express my appreciation to Assistant Professor. Dr. Özgül Burcu ÖZDEMİR SARI, and Assistant Professor. Dr. Ezgi KAHRAMAN, without their wise advices passing through some parts of this survey was seemed impossible.

I would like to appreciate Dr. Derya ŞAHHÜSEYINOĞLU, who by giving me opportunity for working as a part time researcher in Children's Research Center in Ankara (Araştırmacı Çocuk Merkezi), helped me to discover the importance of play in children's education through my practical participation and planning for scientific workshops with children in Darüşşafaka Cemiyeti in Istanbul in May-2014 and other workshop in Middle East Technical University in Ankara in January-2014.

I would like to appreciate Mrs. Ommolbanin ESMAEILI dean of Forugh and Nonahalan Kindergarten for her endless help, guidance and attention to my survey and helping me to complete the observation part of my survey while I was working with children in Forugh Kindergarten in Tehran –Iran in September 2013.

I would like to appreciate staffs in both MTA-Kreş Anaokulu and Arjantin İlkokulu in Çankaya-Ankara, because of their endless assists in distribution of questionnaires among parents and their children.

In addition special thanks and regards to my great family. Words cannot express how grateful I am to my father and my mother, for all of sacrifices that you've made on my behalf. Your prayer for me was what sustained me thus far. I would also like to thank of my lovely sister, my great brother and all of my friends who supported me in writing of my master thesis, and motivated me to strive towards my goal.

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CHAPTER 1

INTRODUCTION

Adulthood is a coat which is shaped by permutation of childhood through experiencing porosity of time-space. Today it is obvious, accepted and proved for scholars and researchers who surveyed on subject of childhood that, whatever human experienced in early childhood have direct impact on their adulthood life span; in other words, those experiences shapes his/her character as a mature mankind. These vast impacts are including; mental and psychological impacts, socio-cultural and behavioral impacts, and health and biological traces in his life. Although matter of childhood experienced by every individual, it is still unknown content and needs investigation in different fields of social science especially different field of design, as Kennedy in 2008 implied that; "Childhood is both the most deeply familiar moment of the human life cycle and the great unknown" [1].

Life of young children is one of the contributors of public everyday life. They learn through experiences and by their experiences they define their world. This will be reality of our everyday life to see children roaming through spaces. In design research area target group considered as one of imperative fact which their needs related to contextual factors should put under research consideration. Therefore, determination of the interaction of users, products, and designed object and environment, play extensive role in design research criteria [2].

Experiencing childhood is an emanation of play practice which is integrated with time-space phenomena. Therefore, the effect of environmental stimuli on children's perception cannot be neglected as one of initial and influential factors for nurturing and flourishing their play behavior. This phenomena mostly shapes childhood through the

channel of play practices, since play practice is a curtail way of recognition of self and environment in early stages of human life span.

Short glance on the living style of primitive tribes, history of pre-civilized living form of humans, play style of children before industrial revolution in cities and the way of living in contemporary villages and countryside demonstrate how experiencing childhood in living environment become different culturally and it becomes distinct from the experiencing childhood in contemporary cities.

Therefore, by consideration on differentiation of these two categories; pre-civilized living form and contemporary life style, it is recognized that experiencing childhood in former category directly twisted and depended on living environment and its contextual elements. In other words, boundaries between the content of childhood and the context of environment were blurred in this category, while content of childhood in latter category became alien with its context, city.

Changes in children's life style and culture of childhood which are mentioned above changed culture of play practices in children's contemporary life; in other words, children's play practices in our era became restricted by constant progressive changes of cities which are mainly known as time splitting and segregation of different space domains. Torn time ribbon and fractured domains, were definite souvenir of modern cities; and effects on modern life sprite.

Alienation of contemporary children from their built environment is the consequence of cities' evolution, which captured childhood in sedentary umbra of artificial cyberspaces that were offered by technology. As a consequence, encountered children with serious others [3], as well as alienation with public spaces and city life.

Children's domain segregation from city and public spaces in modern life, encounters children with serious obstacles that have disruptive influence on children's mental and psychological growth. Moreover, it threatens their future as becoming a mature social

person and creative adult with certain ability to solve problems of his environment. Although, there are child care centers, leisure indoor and outdoor places in city wide, they cannot be considered as places to respond to the initial need of contemporary children for integrating with structure of their living environment. Moreover, they cannot make children familiar with diversity of contemporary life style in cities and challenges of contemporary man. Instead they offer some limited, artificial, 'childish' atmosphere which cannot fill the serious and drastic gap of understanding and experiencing real life circumstances by everyday play practices, through physical body of city. While the priority of environmental education is ragged subject in field of children's education which in May 1988 accentuated as a result of Council and the Ministers of Education of the European Commission, still it seems the proceedings which were done in this regard are not universal and do not fulfil this aim.

The fact above by itself ; drastic gap between children's domain and public spaces in city, were encountered children with two kind of cognitive complexity between things that they experienced in childhood and the things that they will be encountered in public spaces and diversity of urban life in their adulthood.

As a result, children integration with their living environment in our contemporary cities will be an important issue for resituating their freedom to have play practice in their environment as well as nurturing and making them critical about their built environment and city. "A sustainable development presupposes changes in values and attitudes to the environment and progress. Education, therefore, should provide comprehensive knowledge comprising a cross section of the social and natural sciences and humanistic subjects, thus giving students insight into the interplay between natural and human resources, between progress and the environment [4]".

Moreover, in September 1990 individual state within European Union, the UK Government White Paper, implied through Britain's Environmental strategy that

education has a critical role in raising the public awareness about local and global environmental problems; moreover, they accentuated the importance of educational role in promoting environmental awareness, its understanding and competencies [4]. According to statements above and importance of environmental education, it can be deduced that environment and built environment are rich sources of contents which by means of children integration with it, it is possible to educate and nurture them and make them sensible to their issues.

Therefore, in this thesis study the idea of assuming "City as A Playground" was generated based on survey on potentiality of urban elements as a place which offers spontaneous play practice to children. In addition, in this thesis study reclaiming design idea of some urban elements was suggested as an enticing tool for integrating children and public toward livelihood matters of city, as well as accelerating its potential for educational destinations.

Moreover this study includes some practical design ideas which can open new doors toward establishing child friendly city in Ankara by focusing on children's initial needs of play. These design ideas give children opportunity for being encountered with different play practice in their living environment. In other words, by practical way, parents who trapped in certain domain with limited spare time during weekends can expand that time and space by having play practice through city wide. It means that, while they are following other aims in city wide; for instance, shopping, they can be sure that context of city is rich enough for children to take their children out with themselves. Therefore, city in its whole scales gives a sense of belonging and attachment to the children which were relinquished from children's life after industrial revolutions. Moreover, it will make evolution on children's status as a citizen of cities literally.

Assuming "City as A Playground" is a sustainable economized solution for prohibiting children's domain segregation from public spaces; moreover, integrates children with complex diversity of play experiences as well as their contribution in spontaneous

practice of everyday life in city. Therefore, in this study children were considered as user group with their specific needs in the city. Their spontaneous behavior toward built environment considered as a method for eliciting these needs for further reclaiming design of elements in city.

The aim of this survey is revival of contemporary living environment, built environment, to its eternal and primitive functionality which is educating generations and pupils by encountering them with its diverse changes in its elements, its culture, its social life and livelihood of its inhabitant. Executable ideas with aim of reclaiming design elements in urban setting leads study toward conscidering child friendly conscidereations with respect to children's initial rights to have spontaneous play practice everywhere and every time. According to article 31 of the UN Convention on the Rights of the Child it is recognized that the right of the child to 'rest and leisure', and to engage in 'play and recreational activities' appropriate to the freely involve in cultural life and the arts is necessary for their well-being [5].

In other words, the aim of this study is exploring and introducing city in its micro scale as a playground and as a rich play environment for children. Uniqueness of each locality and children reciprocal responses to each element in city provide context of various play practices. For this aim observation was done in city center of Ankara-Turkey and Tehran-Iran which through visual documentation potentiality of existent built environment as a play space and its elements as play units was revealed; in other words, this visual documentation stress the reciprocal responses of children to the physical body of their environment via play practice.

1.1.Background of Study

Multidisciplinary essence of this study needs relevant extensive and vast literature on subjects and nature of play practice on childhood and its influence and its impact on children's growth from different aspects. Moreover, the topic of this study "City as aPlayground" leads study to clarify potentiality of city and its various stimuli as a rich

context for educating children through its social and cultural unique setting. In addition, for understanding the potential of cities as a playground it is necessary to have a glance on available references and literature related to the evolution of cities and as a result formation of children's domain.

Play is important; Children try their living environment and world through play practices and play is considered as an inseparable part of their life. As Piaget stated "Play is a children's work" [6]; play considered as an essential fact in children's life and it helps children to learn rules of social life. For instance, from the moment that an infant tries to smile and parents start smile back; children's life will be integrated with play. Child is director of play and it comes within the child, and it is integrated with spontaneity and joyfulness which lead children to develop skills and thoughts like; social, motor skills and cognitive thinking.

According to the survey on children's brain development it is revealed that from birth about age 12 brain reshape continuously while being stimulated by the sensory experiences in child's environment [7]. Play helps brain development and stimulates it through the formation of connections between nerves cells and will help in fine and gross motor skills[1] , which the first one is integrated with action of holding things while the second one integrated to the activity like running and jumping. Moreover play develops language and socialization skills as well as helping children to learn how to communicate by emotions and have critical thinking and being more creative in solving problems.

Contemporary life style in a city was encountered man in constant balancing work and home schedules; therefore, parents cannot allocate proper time for children while it is

[1] Brain and nervous system and muscles are working with each other and their works contribute to the motion which is known as motor skills. This motor skill by itself is two kinds. One of them is Fine motor skills which integrate with small movement like picking small object or holding spoons. Another one isGross motor skills which is include bigger movements such as large muscles like arms, legs, torso, and feet integrated in. http://www.babycenter.com/404_whats-the-difference-between-fine-and-gross-motor-skills_6562.bc

crucial for children's growth to spend quality relax play time with parents, while children play with their parents, parents apprise children's uniqueness and this enhance child's self-steam and self-importance. Moreover, children integration with technology such as computer and video games not only restrain them in certain space but also limit their physical and communal activities.

Play is time-space phenomena: "Environment for play makes up part of the landscape of childhood" [8]. Through play practice each children define their own resources which can be deviated to space, space stimuli or space elements, and by them they define their identity this space requires for trapping children in social context with natural elements or integrate them with physical activity. Different types of space can emerge with different types of play and can build a new opportunity for children's play, but the dramatic alteration of children's access to the environment which gradually happened in latter part of twentieth century and at the beginning of twenty first resulted in shaping a certain play environment. Moreover, it was result of global trends like of loss of space, adult integration for making decision about children's free time according to their job and home schedule, and endless fear about children's outdoor play space or because of traffic, and 'Stranger danger' or bullying [8]. Not only all those notions changed the culture of play during times, but also it had great influence on wellbeing and happiness of the child.

Physical space alterations like space sold off and loss of greenery in urbanization influence on children's domain segregation and their play environment; although, this alteration includes some understandably forbidden spaces such as rail way tracks and so on. Some examples of physical alteration of space are; replacement of market square and piazza with malls and shopping centers, public parks replaced with theme parks, and some play ground in school schedule under management of ownership and are locked out for certain hours [8].

As described above the contemporary public attitude toward children is considered as a kind of nuisance act, and children's outdoor play without their parents' supervision is

not appreciated. It seems that new ways are needed to reintegrate children with built environment and city through design considerations which will return children's power back over their play.

1.2.Research Questions

Based on observations which were done in city center of Ankara and Tehran it was discovered that every element in the city can be encoded as a play unit for children, it means by perception of children, demands of objects are completely different in comparison with adult behavior. Those different spontaneous children's play behavior revealed two points; lack of design consideration in built environment according to the initial needs of children for play, and secondary usage of every elements in city as a play unit by children. These two points lead study to finding answer of question; May some play elements to be added to existing structure of the urban elements to entice children to be integrated with city matters?

Therefore, in this interdisciplinary study, necessity of paying attention to spontaneous needs of children for playing in their built environment from different aspects has been put under discussion. Moreover; because of proposed design idea for city center of Ankara in Turkey, precisely the perception of children and adult in Ankara toward city as a place of joy and play through conducted questionnaire and data analysis were put under consideration to estimate needs of public for the reclaiming design of some elements in city.

1.3. Structure of The Thesis / Methodology

The idea of "Assuming City as a Playground" flourished after observing children's play activity, and collecting visual documentation from children's spontaneous play behavior in city center of Ankara- Turkey. These visual documentations and photos were collected with the aim of understanding children's behavioral responses to the elements

of physical environment. This documentation illustrates children's contribution to define or redefine those elements usability as a spontaneous play structure.

In the second level of observation which is done in city center of Tehran-Iran a group of children between ages 4 to 6 were selected from Nonahalan Kindergarten in Amirabad Street. Children went for roaming in two streets around their kindergarten without any background information about the experiment. During children's roaming through streets some visual documentation recorded in format of photograph and video recording which were attached to the Chapter Five and Appendices E and F.

Third level of survey was allocated to interdisciplinary literature review on evolution of cities for understanding how and why children have been separated from city. Moreover, "Assuming City as a Playground" can transform culture of play again and bring context of city back as a children's domains, and literature reviews on written documents about children's rights were included. Moreover, literature review was done on impact of play and its influence on children's wellbeing for supporting their needs to be attached to their built environment and for understanding which kind of play activities would be helpful for children to increase their creativity.

Fourth level is the questionnaires; two kinds of questionnaires were prepared for two further users; children and adults, to understand their relation with city; Ankara. Result of surveys were lead study for proposing ideas for reclaiming design of some existing elements in urban setting toward offering spontaneous play practice to public. At the end, for estimating needs of public and necessitate of assuming "City as a Playground", reclaiming design ideas for some elements in city like; pedestrian bridges, bus stations and window shops were proposed.

CHAPTER 2

CHILDREN, PLAY, ENVIORNMENT AND CREATIVITY

Two meanings can be considered as a definition for the interrelation between play and early childhood education (ECE), and integrated with the aim of proposed design ideas of this study. One is “the to-and fro-movement of play” and another one is “play’s separation from ordinary reality.” Via these two definitions play can be considered as separated dynamic and self- generating mobile process of human life which are different from reality state of mind and it is generally used for adapting to the circumstances of ordinary everyday life [9].

Mason in 2003 implied that in contemporary era, creativity is considered as one of the most valuable quality and characteristics of individuals; although, parents, teachers and scientists from different aspects have influence on cultivating children’s creativity [1]. In this thesis study tendency for reclaiming design of city elements with the aim of giving children opportunity to examine and experience city wide considered as a way for enhancing and nurturing children’s creativity. But before supporting this claim clarifying the notion of creativity in childhood and taking glance on the essence of creativity correlate to children spontaneous behavior with their environment through play practice, is necessary.

What is considered from the notion of creativity in languages is uniqueness and originality which is in contradiction with the stereotyped model of thinking which transmit the rigid or fixed form with no opportunity of expansion or changes. Moreover, words of freshness of visions, versatility and novel viewpoints are representative verbal features of this notion. In some point of views creativity is twisted with spontaneity and

freedom while some researchers argued that its genesis needs developing some skills and standards; for instance, for drawi g a simple image of cow by children, muscular experiences and numerous times of observation needed, as Rollo May cited a child cannot draw a cow without "encounter" with it [10]. Therefore, encountering children with stimuli in environment can be considered as a probability for flourishing creativity in childhood. "Play and creativity are linchpins in constructivism epistemology and are clearly needed to begin tackling the socialization and educational dilemmas of the 21st century" [9]; therefore, it can be retrieved that play is considered as a channel of enhancing creativity.

The form of creativity which is related to the childhood can considered as "pseudo-form" which leads to nurturing superficial ostensible experiences in life and integrate with the process of " making or bringing in to being", but in its initial levels can be considered as sublime unity of form and order which is integrated with passion and vitality. In this master thesis, creativity is considered as a matter related to both composed design ideas and children's spontaneous play practice. For having creative environment and boosting creativity among public, especially related to children's creativity it is necessary to summarize the essence of creativity and recognizing notion of creativity in both aspects of its process and its result as a creative product. And answer the question 'what is creativity?'; "Creativity is essentially a lonely art. An even lonelier struggle. To some a blessing. To others a curse. It is in reality the ability to reach inside yourself and drag forth from your very soul an idea [11]." It seems that consensus about creativity is integrated to the process which leads to the creative product that is considered as output of man. In the work of "Affect and Creativity", two qualities were considered as a quality of creative product which was cited from Mackinnon 1962 and Hayes 1978, [12].

1) Being original, novel and unique
2) Being adaptive, good useful and being aesthetically pleasing according to the some standards of related disciplines.

Moreover, in same work cited from Torrance, 1988 a product is considered as a creative one, if its old facts integrated to the new way and "new relationships emerge from old ideas [12]." Design ideas in this study are shaped based on children spontaneous play behavior or their creative action; therefore, it is crucial to recognize that are those behavior which precisely mentioned in chapter four can be considered as creative act for nurturing future creative design ideas and as a result creative design product for public?

In the work of "Affect and Creativity" which was cited from Thurstone 1952; it might be thousands of discovery already occurred, but the point is if the certain discovery is new for the thinker, then it can considered as a creative act. Therefore, children spontaneous play behavior can be interpret as creative act which are involved in creative processes [12].

Wallas in 1926 specified first model of creative process with four stages; "Preparation, Incubation, Illumination and Verification". Preparation is the stage in which information is gathered and knowledge is categorized and problem is identified. Incubation stage considered as a duration that problems are not consciously worked on, and ideas flourish without direct interferes of individual logic. Illumination stage is the stage that solution for certain problem is recognized. Verification stage is the evaluation stage for different solutions which the process that hypothesis tested. This is the stage of logical and critical thinking [12].

By explanation in previous paragraph it seemed, while children are encountered with physical environment, they are defining spontaneous play practice or play behavior according to their needs of play which is their instinct way of discovery, and three stages of preparation, incubation and illumination are occurred at that moment; therefore, for enhancing environment as a creative place for children it seems that it is possible to follow children's behavior through these three stages of creativity process, and then this process can complete by designers through critical thinking about reclaiming design of that structure or that elements to the certain play unit for public.

In work of “Affect and Creativity”, were cited from Wisberg1986, 1988 that creativity can be another form of problem solving which involve in matching things that a person knows, with situation [12].

2.1. Children’s Creativity and Environment

Living environment considered as a necessary tool for developing children creativity precisely communicative power of city and use of this power as a tool for nurturing children socially, culturally and educationally. City by its changes in everyday life flow, and its physical characteristic can be considered as a communicative tool; “growth of civilizations is interdependent with the ability of communication [13].”

Philosophy of continues growth which is suggested by Allport is formed based on growth and changes in creativity of pupils, it means that personality of individual not only is “self-active” and “not-finished” product, but also it is in constant changes and is in continues procedure of becoming; therefore, intensive human’s encounter with the world around enhance their creativity. Although Paul Witty stated that mere experience is not enough for being creative and it needs five criteria; Experience, The Creative Moments, Creative Occasion, Miracle of the Words, Interrelation of the Knowledge, for its appearance. Paul Witty express these factors that make children creative in classrooms in regard of verbal creation [10], but four factors among those five can be adapted and assorted for hypothesis suggested in this thesis study for redefining creativity in built environment;

-Experience; people and children are in constant experimental moments through their everyday life and precisely while they are in city, city by its variety of events is a complex context of stimuli for experiencing and re-experiencing things.

-The creative moments; as described above creativity needs an appropriate and adequate instant context for nurturing and flourishing and city can use as a potential of being rich context in this regard which in chapter four of this study accentuated its potential.

-Creative occasion; creative experience will not occur without any proper context. Therefore, by reclaiming design of some elements in city like pedestrian bridges, bus stations, pavements, window shops, edges and surfaces layout as a play unit it is possible to entice children attention for having momentary and spontaneous play experience in city wide; in other words, operating a creative occasion in which creative act, 'play practices' occurs.

-Interrelation of knowledge; as discussed before creativity is just not related to the spontaneity of happenings or events it needs skills and knowledge. Observation from children's behavior in street which is extensively discussed in chapter four revealed that children have some spontaneous free practices through city wide which are considered as reciprocal responses of them toward physical built environment. For fostering and enhancing this behavior toward creative action by the aim of educating different aspect of city life, it is necessary to enhance the functionality of these structures by reclaiming design of them toward their demand as a play unit for children.

Context of city can be understood as a provider of information with sending and receiving capability; in addition recording information in memory of its inhabitant make it as a rich lab for children's experimentation. Therefore, the communicative part of it is essential part which integrated with various aspects and elements such as; its visual symbols, sequences and rhythms of movement of vehicles and people while they obey traffic rules or their random trajectory, its graphite or mural which ornamented its skin, form of its elements or shape of façade of its building, its architectural varieties, from its small posters for advertisement till huge billboards.

Through these complex and vast visual contemporary impulses, children's domain segregation eliminate possibility of encountering them with this rich source of visual information, which in article of "Art, Images, Communications and Children", were implied, interaction with symbols in our environment in which we grow and learn, plays crucial role in human cognitive ability [13].

Relation of one's visual sensory with the environment is appears in a form of communication or expression which is necessary in growth span of each individual, as if the first interpretation of children from their world in their early stages of their life appears in form of scribbling which prove that children are able to understand the world around and numerous association between objects and spatial spaces via filter of feelings and emotions. Therefore, allocating children in separated domain like kindergarten or playground in which children have limited interactions cannot make children ready to have influential interaction with their city and their built environment; in addition, this interaction can boost children's sense of attachment toward built environment [13].

2.2. Play as Creative Experience for Children

Child development and early childhood education are related to the creative experience. By hypothesis of city as a playground, city was considered as a gravid context for education in tumultuous and disorderly contemporary life style for flourishing spontaneous joy and momentary play practice. Childhood becomes categorized in different ages according to children's developmental stages and their different needs. In this study target group between ages 3 to 6 were selected. Since, according to the different psychological ideas, educational theories and neuroscience achievements this interval considered as crucial ages of children for recognizing their living environment and its rules and regulations; moreover, it is considered as an intensive era in dynamic developmental period of childhood. In this crucial age children cognitive ability and social and motor capability as well as skills via channels of different experimental practice and play are shaping. Despite the fact that according to the especial characteristic of environment and each local area, assuming "City as a Playground" will offer interactive play experience to all citizen and local inhabitant; the focus of design ideas which suggested through this thesis study is on the target group of children between ages 3 to 6.

Cognitive ability is an inner procedure which resulted in “knowing” as a production of mind. Children especially in age interval of 3 to 6 have numerous cognitive changes which through them they will recognize the world around and this happen to them by interpreting events and relativity of things through play practices. All changes in their cognitive stimulation through their childhood are depending on the reciprocal responses of children to their environment and objects which entire of these responses appear in their play practices [14].

According to intellectual development theory of Jean Piaget, which implied that children are encoding their world and living environment by their individual exploration and their own understanding; therefore, this theory revealed that children enticed by various stimuli in their living environment and discover their interrelation through their play experiences. Therefore city as a rich context of stimuli can encounter children with variety of unrepeatable and spontaneous experiences especially in compare with the children’s domain like kindergartens and outdoor and indoor leisure space and playgrounds. Piaget emphasized 4th level of cognition in childhood which the first level of that is preoperational level related to preschool age interval in which children can be encounter with the expanded symbolism complexity which is increase while children try to represent environmental events and objects mentally or by using other objects and actions [14], and this is the reason that children in this age are capable to define their built environment elements as play object.

Another theory is social development theory which is belonging to Lev Vygotsky 1978 which accentuated the effect of culture on individual cognitive development by social interactions and outside-in process. He stated that; "Every function in the child's cultural development appears twice: first, on the social level, and later, on the individual level; first, between people (interpsychological) and then inside the child (intrapsychological)” [15]. By assuming “City as a Playground” and compare it with ordinary indoor and outdoor playground and other children’s domain it can be reffered that it will be more preferred; because, city as children play environment can flourish children culturally and influence on their cognitive ability more than their specific domains because it

encounters children directly with greater possibilities for social interactions. Moreover, while children's domains were fulfilled by play equipment and play products which are more or less repeated from same model and copied in all over the world under influence of idea of universality of childhood, city's elements with its everyday life culture or even its geographic specialty like its climate, architecture, prosperity, its night life and its night lights, or its rules were shaped as a unique complex of environmental experience and cultural interaction, environment in which thousands of experiences gradually or momentary dies while thousand are born at the moment.

In addition to the theories above, Information-processing theories which were shaped based on physical changes on brain structure were known as a result of different and various environmental experiences which enhance children's cognitive ability. This theory emphasized the point that in 3-6 age interval the cognitive ability of children enhance because in these ages focusing on activities and attention are increased moreover children's ability of developing concept of sequences in events is increased; in addition they start to develop their level of memory although they seldom use it and their behaviors are based on spontaneity more than intention [16].

Theories given above illustrate the notion of cognitive ability in given target group, and how children symbolically by play practices have contribution with their living environment which can be considered as reciprocal responses of children to their living environment stimuli. Therefore, children are considered as creative creatures because their cognitive process is much more dependent on their environmental experiences and depends on their play practices.

Moreover, deficiency in children's motor development in contemporary life style is considered as one of important problems which children and parents are faced with. Lack of parent's time for taking children to out of homes and children's domain and playgrounds; in addition, general thought of unsafe living environments considered as a reason of removing culture of outdoor play from contemporary children's life style. As a result, mobile activity separated from process of thinking in children's play

phenomena because of computer and cyber games in their home. The most important factor in boosting this development is children's participation in outdoor environment for play. Frost et al. in 2008 defined three categories for child motor development [17]. It is predicted that assuming "City as a Playground" can fulfil those categories in children's contemporary play culture which are listed below;

_Gross motor skills; coordination of large muscles proved children's mobility which is integrated to the locomotors skills for instance help children to run or gross motors which integrate with the upper body movements like arms skills.

_Perceptual –motor enable children to encounter with physical environment through connectivity of senses and their motor skills enable children to attach themselves to their living environment and as a result reciprocal responses toward physical characteristic of spaces.

The perceptual-motors can be defined in four categories;

_Body awareness which is resulted in identifying efficient use of body parts

_Spatial awareness which is result in efficient use of body in space

_Directional awareness which is determined by localization and directing body in spatial space

_Temporal awareness which is focused on the relationship between movements and time which lead activities in sequences and rhythms

Therefore, according to the categories above and according to four stages of child developmental motor skills which are defined by Gallahue, it is possible to answer the question why city with its complexity and adversities by its physical structure and social life is rich field for children's physical and mental growth through channel of play [17].

To sum up, built environmental stimuli like lights and shadows colors, and mobile manufactures or mobile creatures in city, sounds of city which include natural sound or noises can entice children attention from first year of their life and result in reflexive movement of children toward their environment. The latter two years can be considered as development rudimentary movements which are based on motor skills like grasping standing and walking can be flourished in context of city, while children entice with the

material form, texture, material color of pavements to have play practice with this city elements or while their parents in bus tried to claw in guard rail, children also try their motor skill and try to imitate and adapt themselves with the way things work by experiencing them. For preschool children fundamental movement which accelerates with completing basic skills developing by fine motor skills as a jumping and walking, in this level observation from children behavior and their responses to the city elements revealed that how children try their skills by jumping from edges or on top of them. In this level the variety of physical characteristic of each element, is very important for enhancing this ability for example different surfaces levels, variety of material and motives make context of city as an experimental field for children with infinite repeatable and unrepeatable experiences. During childhood this motor ability can accelerate and become more complex which lead children to recreational activity in city wide.

The brief literature review given in this part is for accentuating the importance of the idea of "City as a Playground" for children's well-being and growth and by taking glance to different definitions which is given by different psychologist to the subject of children's physical and cognitive development the importance of preschool era in children's growth were illustrated as Montessori implied it as the absorbent mind while Piaget called it as preoperational child and locomotors-genital stage [18],[19]. Jean Piaget whose works were generally on field of intellectual development of children believed that intellect is genetically defined, but due to biological boundaries and personal experiences children can possess certain skills. Therefore, environmental changes and constant children's adaptation with its variety of changes and stimuli around accelerate children's cognitive ability, not only by nurturing them amount of information, but also by accelerating their intelligent ability [19].

CHAPTER 3

CITY

City is considered as an effective contemporary context in children's life. City is substantial and rich context for their educational and social growth. Moreover, by integrating children and paying attention to their specific needs and rights through the city matters. It is possible to respond their needs of spontaneous play and bringing content of children back to the context of contemporary urban life as children as citizens of cities.

Albeit solid structure of city, its variety of form and functions and the quality of everyday life of its inhabitant make it more subjective than its solid characteristic as Steven Holl in the work of Urbanism implied that despite of walls of glass, concrete or brick structure of city, city is more subjective. This subjectivity created enormous opportunity for learning and exploring for youngster and children [20].

In a work of "The Image of the City" by Kevin Lynch, context of city by itself or by the piece of architecture or some structure in space,is considered as a donator of visual-spatial pleasure. Moreover, occasions and different people, which their sequences are reversed, interrupted, abounded and cut across, can illustrate a variety of meanings in city wide for exploration, because nothing can be experienced by itself and everything is in relation with its surrounding. Particular activity of people and moving elements are important treasures of physical events of city. "Not only is the city and object which is perceived (and perhaps enjoyed) by millions of people of widely diverse class and character, but it is product of many builders who constantly modify the structure for reasons of their own, while it may be stable in general outline for some time, it is ever changing in detail [21]." Subjectivity of the city arises the question that if our

contemporary urban life becomes more subjective and as a result context for explorations, why children became more and more alien with its reality, and modality of its elements. Why they became segregated from its variety of events and its diversities of public everyday life?

While city is subjective phenomenon and as a result open to the different interpretation, design considerations about its elements generally target adult as inhabitant of city. City can be considered as a context for development and exercise of citizenship; therefore, two aspects of acknowledging and training children as its citizen promoting urban setting toward enticing children to understand city as a context for their own development and other children [22].

Contemporary cities with children's domain segregations eliminated opportunity of understanding relational. Segrated domain in city form their life while children's brain is embedded with body, and city embedded with environment surrounded it. Children's domain segregated through typology of designed and planned places for children proved the point that children do not belong to the entity of adult environment; moreover, some of them through changing in culture of play become left over;

-Institutional places: Day-care, Schools, Schoolyards, Sports parks, Theme parks
-Public spaces: Streets, Sidewalks, Parks, Trails, Malls, Waterfronts, Beaches
- Private spaces: Home, Cars
- Found places: Vacant lots, Natural areas, Waterfronts, Street corners
- Found/off limits paces: Discovery/Adventure places, Vacant lots
- Wilderness: Urban wilderness, Natural areas
-New and innovative: Community gardens, School gardens, City farms, Greenways, Skate parks, Town trails, Front porches, Cyberspace [23].

The assortment above illustrate that contemporary children mostly use institutional places more than others. This thesis study by linking children's play practices with public spaces and city elements suggeste a possible solution for filling the gap between

children's domain and their developmental needs for being encountered with the entity of real life in city as a built environment.

City is an experimental phenomena, this content by itself will encounter children by the variety of constant life changes. It means that cities are important in children's life not only by their objectivity but also by their subjectivity through understanding its urban life by its "spatial energy, qualities of light, color, sounds and smells" [20], which these qualities prepare non-repeatable context of practice through variety of mortal stimulus. For instance, contemporary city nights give experience of luminosity in various interrelationships of light and color, forms and atmospheric conditions which in compared with darkness night of rural area or mankind urban life in past centuries can be more imaginative and mysterious. This is one example among thousands shows the richness of city related to flourishing children's imagination which probably by sending children to ordinary children's domains children cannot encounter with same experience. Therefore, exploration of city should occur by children is senses and through their play practices.

This chapter allocates to the brief study on evolution of cities and its impact on the notion of childhood as a part of public notion, and its consequence on urban life and how cities were slaughtered to separated children's domains. Moreover, this chapter contains discussion about how children's domain segregations changed the culture of play and as a consequence this change empowered children's alienation with their built environment by considering the point that content of childhood by itself was souvenir of modern changes in cities which children considered as a creature with the potential of being mature adult in near future; "in modernizing societies children become cultural symbol that represent future" [24]

Impact of evolution in cities and modernity is slaughtered time and spaces, which Nan Ellin in work of "Integral Urbanism" remarked modernity separated the categories of space and time and "emptied" them. Although before modernization space was considered as "an interval of time" and they were in constant interchangeable location

“This is when / where…” and she used words of “rendering time and space” as a consequence of modernism and as factors of imposing standards and norms. In this regard Bloom mentioned to the point that, “Our central fact is Time.” he cited, in deep engagement of time with the equivalent dimension in space; “A deep space of the urban begins where interior to exteriors and vice versa”. This fact is traced in contemporary life of children in cities and chopped the notion of playfulness through certain limited domains by fractured time. This ragged continuum of time by itself is in contradict with monolith notion of playfulness in childhood and; as a consequence, it changed the culture of play [25].

For understanding interrelation of children’s domain segregation and its influence on culture of play it is necessary to have a brief study on the evolution of cities and its impact on different aspects of children’s life. Because evolution of cities caused metamorphosis on notion of childhood and as a result segregated this notion locally, sociologically and psychologically. Hence, constant formation of ordinary indoor and outdoor playgrounds, children’s leisure spaces in shopping malls and child care centers popped out of the ground like mushrooms. These formations were beginning of children alienation from entire city and its matters.Although cities like Ankara and Tehran which focuse of this study different aspects is over them from, did not experience industrial revolution as it happened in European countries, but the impact of industrial revolution on diffrenr aspects like progress of science and technology and its shadow over human life became universal.the idea about notion of childhood, their education and their domain segregation can considered as impacts of industrial revolution which are adopted through universal process of civilization in lots of cities around the world.

3.1. The Evolution of Modern Cities and Its Divisions

For surveying the evolution of Modern cities it is necessary to point out about two significant works in this context; work of Gordon Childe with the paper entitled “The Urban Revolution” was written in 1950’s and Henri Lefebvre’s monograph work with the title of “La Revolution Urbaine” in 1970. Childe surveyed on revolution of cities by

historical, anthropological and archaeological tendency while Lefebvre's work focused on the transition from 20th to the 21st century, but both work had common point of view toward last one hundred years integration of science and society in flourishing phenomena of urbanism [26].

In work of Childe with the flash back to the past history of human was tried to clarify aspects which shaped today's life while Lefebvre's work surveyed about today's urbanism with the futuristic attitudes. According to the Childe urban revolution was started from 5500 BC by Mesopotamian society which is considered as one of significant revolution in human history. " A hominid revolution which marks the emergence of human beings, the Neolithic revolution which has transformed human society from hunting and gathering food production, that is agricultural , the urban revolution, and more recently the industrial revolution [26]."

In work of "Self-Organization and Urban Revolutions", Juval Portugali implied that the idea of Lefebvre Urbanism considered 'a genuine urban society' has yet to arrive which is started from 20th century and it will shape in second half of 21st century. Although archaeological reports and data from the middle of 4th millennium B.C inform us about eruption of structure and form of settlement in cities and society; for instance, in Uruk in Mesopotamia, but what is considered from revolution is not only related to the form of settlement, but in all aspect of life, culture and society; therefore, things comprehended of revolution are emergence of a highly specialized, class divided, society with a segmented division of labor, long distance trade, new forms of politics and government, and creation of writing system and as a result transition from prehistory to the history [26].

The dramatic changes started from 20th century till the edges of 21th were implied by Lefebvre and included; demographic growth of human population, which were directly consequence of rapid urban growth, contradictory conjunction between the emerging global economy and global village. Moreover, parallel cultural pluralism and localism, internet, the information highway, the notion of 'network society', 'space of flow' and

‘information society’ and ‘information city’ which suggested by Castell in1996 that the emergence of environmental problem, the green movements, with the specific inclination to the traditional ‘right’ and ‘left’ dichotomy that has dominated in society, social philosophy and politics for over a century, and the very recent cognition that the environmental dilemma of cities and urbanism, also were considered as those changes [26]. In conclusion by pointing out to changes which evolution in cities brought with itself, it is considered that the industrial revolution was a landmark for formations of distinct changes in human life style and as a result separation of notion of childhood from public, and children’s domain from public space.

3.1.1. Perspective on preindustrial cities and children’s position in preindustrial cities

From the work of “The Preindustrial City”, precise elements like economic, class and family system were recognized as common pattern to all urban communities. Social structure of these pre industrial cities was categorized in peasantry and city’s lower class. And urban structure centralized upon food and raw material and in these marketing center inhabitants served their handicraft productions. It is considered that preindustrial cities had their own political, educational and religious function. The population of preindustrial cities was approximately 100,000 or more, which 10 percent or less allocated to population of peasant, but the population growth was so slow in accretion. Transportation facilities utilized by primarily human or animal power and surplus food were available by un-mechanized agriculture with efficient methods of storage and food preservation [27].

The inner arrangement of preindustrial cities were related to the economic and social structure. Streets of mere passageway for people and animals used in transportation and the limitation of scientific knowledge and congested condition fostered serious sanitation problems. One of physical characteristic of preindustrial cities which were influenced by social segregation was formation of “quarters” and “wards” which both sealed from each other with their locked gate at night. Quarter had shown the sharp local

social divisions. Therefore, ethnic group in pre-industrial cities had their own separated streets or sections were occupied for trade [27].

According to Sjoberg, 1955; the evidence from preindustrial cities were shown the fact that despite of rigid segregation there were no real specialization of land and city; therefore, dwellings had multifunction and used as a workshop area, or religious structure were used for school in Middle East mosques and in medieval Europe cathedrals were focal point of community. This multifunctional structure of cities gave opportunity to younger member of society to be encounter with different spatial spaces in the city. Therefore, in preindustrial city the notion of childhood and their domain were not separated part from what perceived from entity city life and its structure.

Economic organization defined through the production system of goods and services upon animate-man and animal-sources of energy. Moreover, it just depended on particular system of production and was in low divergence or specialization of works; therefore, people had their own control over work conditions and methods of producing things; moreover, generally business were conduct in a leisure manner and money not being the only desired end [27]. In such a system which human and animal power were considered as a source of energy, children were imminent part of it and bearing children were considered as way of producing this power. Moreover, children in this system had to work with adults and in their spatial environment to learn work customs and traditions; therefore, they were integrated with different social community from their primary ages of their life.

Form the 17th century thousands of children worked in industrial sectors. The time which by some scientist was considered as a time that notion of child labor shaped. And the child labor by some opinions comprehend as a social problem of industrialization while according to historians this phenomena on a large scale existed in preindustrial era; as an example, children participation in agricultural activities and pre-industrial craft product. ‘Survival strategies’ of family and household is considered necessary

theory for surviving in society; in other words, all family members have to contribute to the family income; therefore, children participation in adult work environment in pre-industrial era was indispensable [28].

This indispensability of child's labor and their integration to the adult environment illustrated that there were no specific spatial space segregation between domains of children and adult, because there was no segregation between content of childhood as a fragile member of society; in other words, children were considered as work forces. Moreover, according to the study of "Between Wage Labor and Vocation: child labor in Dutch urban industry", 1600-1800; it is considered that at the end of 1960s, the importance of 'human capital' have been emphasized by economist; therefore, investing on education, training on work floor, or general development became important and as a result of this theory children might learn skills and gain experiences during their work [28].

Moreover, before changes in 17th century which were pointed above in pre-industrial era kinship and conjugal unit was necessary function co-relate of the city life; therefore, children as son were highly valued; moreover, familial organization with its rigid pattern of sex and age differentiation played crucial role in social life. Since age grading was fixed and in formalized system of social control; the eldest son among siblings is privileged. Children and youth were subservient, and dependent to the parents or other adults; as a result, they were considered as an important work-force for pre-industrial human [27]. By the system of conjugal unit of society the work environment as multifunctional unit were offering same spatial spaces to adult and children.

Children of preindustrial era gradually drifted in to casual and undemanding works because they were not strong enough to take all of the tasks which were required in farm or workshop. But they integrate with casual job from their early ages of lives because when they reached to their teen's ages they became proper for joining to serious business, apprenticeship in a trade and work beside adults. Meanwhile, they often assigned to the simple but time consuming jobs such as caring for younger sibling or

running errands which lessened adult responsibilities to help them spend their time on more productive activities. And generally girls spend time for looking after of children for their mother or even earn little amount of money by minding baby for another family [29].

In the farms children helped adult by picking stones from fields and scaring "birds from crops, minding pigs and sheep" and similar work for their size and their experience, and if they were in towns they might start work in some of "lighter trades, such as making clothes, manufacturing nails, or doing deliveries". Many of them also work on the streets, sweeping crossing for pedestrians, performing tricks, or cleaning shoes and some of these works required long, lonely hours out in the fields. It was possible for them "lighten the load by combining work with play". The young shepherds, for example, could amuse themselves "carving wood or joining" with others to play games [30]. As a picture that Heywood illustrated in his work it is considered that both children in rural and agricultural area and who they live in cities both spend their everyday life in common activity area with adult, therefore, it is hard to define specific segregated place which precisely was allocated to the children in early industrial era or pre industrial era.

3.1.2. Perspective on industrial revolution in cities and children's position in industrial cities

The half latest 18th century till first half of 19th century was considered as era of industrial revolution which is mostly known as a transition of muscle power to machine power, and forming of manufacturing sectors especially in Europe and North America. Miracle of machines in the manufacturing process was increasing amount of manufactured goods at affordable prices, thus the living standards started to elevate in beginning of process; although, Industrial revolution has its own positive and negative impacts on the world.

One of the most important impacts of industrial revolution known as "urbanization", which is the consequence of large scale of migration from rural to the newly established

industrial and cause urban-commercial areas; although, from different aspects human are known to have urbanized themselves from time to time throughout the course of history, but the process of urbanization is always characterized by the large-scale migration of people from the rural areas to the urban areas, thus leading to a sudden, and often unexpected, increase urban population. It is also characterized by the growth of other modes of production apart from agriculture, thus making more options of income accessible to the people [30]. Moreover, in work of "UNESCAP", Unchs in 2003 give a short explanation about urbanization "Urbanization is a reflection of social advancement and modernization, and goes hand in hand with economic development" [31].

Urbanism is considered as a process which historically related to the differentiation between rural settlement and urban settlement. Physically cities which are distinguished by walls defined its territories. During modern period by rapid expansion of cities, walls were removed; moreover, by changes in agriculture to agribusiness the physical distinction between rural area and cities became blurred. Today Legal boundaries are defining urban area, as well as continuously built up areas which were known as functional area. And these legal boundaries are under influence of political power such as ability "to raise taxes, provide services and have their own elected officials is in various shapes in entire world" [32].

Urbanization during industrial era brought about various changes in social, political lives of people; In one hand it caused large scale of migration of people toward cities and as a result forced governmental system of cities to establish policies to respond needs of inhabitant; for instance, invest governmental interests on works development, modernization of infrastructures, opening schools, supplying sanitation providing facilities for health and water, but in another hand it has some miseries and disadvantages specially for children [30].

Factors below illustrate some impacts of industrial revolution and show how changes were categorized public environment to the restricted and precise boundaries;

-Rapid growth of factories and industrial sectors created numerous jobs opportunities, and these changes in city were the beginning of time fragmentation in city.
-Differentiation between agricultural sectors and industrial sectors seemed more promising for peasants and workers. But these changes segregated people in specific one functional work category and space.
-Affordable prices of manufactured goods helped people to save money for posterity and the purchasing power of public increased and its elevated living standards.
- Accelerating people living standards caused the growth in number of subsidiary industries, which included entertainments and service alongside others [30].

Beginning of industrial revolution albeit all its desirable influences on people life style had some undesirable impacts which generated some problems in cities such as crimes rate, poverty, deforestation, and the formation of the slums. Hence, the prominent effects of urbanization were; class divide, gradual decline in standard of living, change in family structure, catalyst for socialist revolution. Moreover, these impacts lead physical character of city to the various separated environmental boundaries while allocated some group of people or workers to those boundaries; it was ignoring vast integration of other part of public and society members. Therefore, industrial revolution changed physical shape of cities by its distinct and explicit boundaries of space which obliterated the multifunctional characteristic of each function of pre-industrial cities. As a result, the social structure of urbanization divided in new class in society and factory in one hand owner who became financially powerful in another hand working class were confined to unhealthy living conditions, unsafe working environment with low income that children were one of inseparable part of this working class [30].

Large scale of immigration to the cities become quite difficult for people who were used to staying and working in their own farm because basic necessities were accessible for them and because of population growth, urbanization put a lot of pressure on the economic as well as governmental system which could not handle the population growth. Moreover problems of unemployment and under employment were raised and caused lowering living standards [30].

Urbanization and industrialization changed family structure regarding especially women and children. Children became source of low-cost labor and men became “bread-winners” of the family, while middle class women enticed to stay back home and look after children which were resulted in gender and age discrimination in the urban society [30].

One of social points of urbanization was that people with different cultures and traditions came together to live in cities and their cultural values became blurred and needs of something for identification which associated to all and it cause working class. Characteristic of working class were known with their low income, long work time, and unsafe work conditions. Combination of impersonalized city environment with dehumanizing working atmosphere and the diversion of various sections of society all were influential factors for socialist revolution in entire world [30]. For instance, in 1762, Jean-Jacques Rousseau, by his work “Emile” implied that children was born innocent but became stifled by all prejudices and authority of society or German Jean Paul Richter in his “Levana” in 1807, implied that children were "messengers from paradise". By these implications it is recognized that the romantic movements had great influence on idealization of childhood; moreover, Romantic Movement broadcasted the idea of modern childhood as an innocent era to be preserved, but the most prominent changes were shaped this content in 20th century with law improvisation which improved life of many youngsters in city in the late 19th century. Children were considered as a symbol of domestic life national identity and feature. Moreover they become dominant motives in visual propaganda through world war two, in another words politics take advantages of childhood for radical social changes [33].

After world war two the massive school-building programs were expanded the movement of postwar reconstruction; therefore, in this time the content of childhood become key vision for constructing egalitarian world. Therefore, this time were known as a time of brutality and devastation which by itself had influence on field of design and integrate design with militarism, pernicious, and negative racial or gender stereotyping. As a result lots of avant-garde designer tried to emulate and embody from

constructive impulse of children's play and children's art. Also the idea of "good toys" which promote to the well designed, safe and non-violence were flourished by international groups of professionals who worked with children [34].

After industrial revolution and at beginning of 20th century, the new content of 'Childhood' cause specification and segregation of children's domains from public space which from one point of view was consequences of child centers family in society and known by conjugal or nuclear family and was in contradict with the kinship system of family in pre-industrial era. Kingsley Davis in 1996 implied it as "vertical social mobility"[1] [35]. It involves change within the lifetime of an individual to a higher or lower status than the person had to begin with, which was occurred in industrial societies cause transformation of traditional life style in city to the nuclear family [24].

Although the general notion of this physical segregation in city were shaped from 1850s by submitting several plan for Central Park in New York, but it took long time span to lead children from the only place which they could play outdoors like street, alleyways, or vacant lots to the specific domain which were exclusively designed for them. Central Park designers Olmsted and Vaux created a hill in southern part of the park "Kinderberg" or "Children's Mountain" which first was assigned to the school boys (not girls) to have free play in certain days of week [36]. Moreover progressive changes and developments in law and in respect to the rights of children and women and secure economic conditions were known as factors which played roles in this regard. Children's domain segregation started first by constructing schools building and then by the constructing play grounds; evolution of cities and its physical domains segregation leads children to the play grounds which can be considered as one of the impacts of evolution of city on children's domain.

"Oliver Twist" was a character who illustrated the impact of industrial revolution on children's life of that era. The quote "wretched street urchins in the slums" clearly

[1] Vertical mobility refers to a movement of an individual or people or groups from one status to another ("Sociology Guide", 2013)

shows the living conditions of children in industrial cities. In 19th century, there were two imposed living condition to the children of industrial cities; one was being operator in factories and another one, being slum. Moreover, in this time span there were no rules to protect children against slavery and child labor. In the first half of 19th century the protracted process of civilization started from the core of western European nation with leading of Britain which was later followed by Switzerland, Belgium, France and Germany in the middle of 19th century and the massive urbanization shaped the society; although all these industrial area was surrounded by form of pre-industrial environment. The impact of industrialization by its continuity and changes of material and cultural advances as well as its social inequalities in children's life can be surveyed [29].

Before beginning the mass schooling which started at late 19th century and early 20th century, most young people in Europe gradually moved in to the world of adult at early stages of their lives. By the means of formal and informal apprenticeship on home and on workshop and trade they became familiar with their future responsibilities; moreover, they became familiar with their living environment and its rules and they were experienced real life conditions [29].

Later in early modern Europe, authoritarians preference for force labor were for child and women labor; therefore, they were welcome to the first signs of industrialization in countryside and as a result these new "protoindustrial" forms brought some difficulties round of agricultural and industrial work which were unknown in earlier centuries that bore down on children as on the rest of the family. For example early spinning machinery was specifically designed in a way just young people work with, but in most factories children were continued to help adult with their traditional role. According to the historians children might start working in industrial sectors from ages seven or eight, but most of them probably waited until age ten or twelve and then involve in heavy industry like steel and iron industry [29].

During first phase of industrialization there was a gap of leisure time in people life and especially children's life. There was some old holidays and festivals which children run

through fields and streets; otherwise, children spent most of the time in factories and if they have any playful moments it was encounter with hazardous event with mechanical apparatus. In one hand during early stages of rapid movement of people to industrialized area children were drawing to schooling system while they were working on industrial sections. In the other hand progressive industrial movement insist in literacy for their employees. During 1880s education in Britain and France became compulsory and most children were received elementary education [29].

As a result the impact of industrialization on family in the second half of 19th century was routinely behavior of sending their child to the school. The earlier role of family began to demolish by impact of industrialization with the rise of specialized institutions such as factories, schools and hospitals, and changed its functionality from unit of education, production, and so on. Result of this change was separated and precise boundaries between different environment and its functionality. It is important to point out that family was not a source of emotional support while the new strata appeared among aristocratic parents with tendency to distance themselves from their children. "Peasant and working-class parents were often too hard-pressed by work and insecurity to be able to pay much attention to their offspring [29]."

This was the era that mothers devote themselves for their family by feeding their infants and teaching them religious sounds and moral values and sending them to the nursery to make them far from harsh realities of adult life; the milieu which proved most receptive to the new idea of nature of childhood which become emerging from leading figures in Enlightenment and the Romantic Movement. In brief the Romantic Movement in 19th century opened a way for range of philanthropic and legislative initiatives to protect children from the dangers they were faced by industrialization. This time campaigns shaped to eliminate the abuse of child labor. The movement of reformers was combination of humanitarianism and more mercenary considerations [29].
The list below show the historical process of these movements:
-Société Industrielle de Mulhouse, in Alsace-1830s requested from government for a law on child labor.

-1802, legislation for an act of protecting apprentices in cotton mills in Britain and tightening the systems of enforcement.
- In Britain Althorp's Act of 1833, 1819 by introducing the first viable inspection system
-1867 Factory Extension Act
- Prussia child labor laws around 1840, produced a more comprehensive system in 1853
- France child labor laws around 1840, produced a more comprehensive system in 1874

All such legislation aimed to regulate child labor rather than abolish it, setting minimum age for working, grading hours according to age, banning night work, and insisting on some schooling. It doubtless curbed some of the worst abuses, though it also had the perverse effect of driving some children into small, unregulated workshops [23].

3.2. Impact of Evolution of City on Children's Domains

One of the important impacts of industrialization on children's life was schools as primitive separated domains which defined in educational system for children. Other domains which shaped in 19th century as a result of evolution of cities were play grounds. This procedure started from 1850s in New York City and getting originated in the idea of play ground as a concrete idea of teaching correct way of play to children in Germany in 1859 which resulted in a park in Manchester and eventually by complete introducing content of playground in United States in 1907 by famous speech of president Roosevelt who expressed that "city streets are unsatisfactory playground for children" and streets are not safe from aspect of heat in summer time, they are not secure and they can be apt for schooling crime; moreover, he implied the number of playground that should extend as much as schools [37].

Although during evolution of playground, some artistic point of view were changed universal face of playground and its equipment to more creative forms, but the general movement of changes tend to the movement of segregation of children's play space also the number of creative play grounds around the world were not significant. For instance, Constantino Nivola artist of Stephen Wise Towers Playground, in 1965 by his critical

point of view toward modern city's play ground that they are not much more than a monument of jungle gym. He mentioned about consideration toward worthy of "sculptural talent" of playground [9]. He stated by the talent of sculpture it is possible to improve and change "titanic display of necked palming" and make it more cultural product. His work and his point of view toward playground revealed that one of great influences of segregation of play environment from public spaces was the loss of cultural and local attention to children's domains. Children's play domains which still have less variety all over the world by cultural importance and they are not confined to regional needs of its inhabitants [9]. This state reveals that play grounds not only make children separated from public space but also eliminate the specific attention to regional characteristic of inhabitants through using and installing less or more the same play equipment and productions in children's domain.

Children's domain segregation had some positive impact; for instance, resulted in specific attentions to children's rights in comparison with their social situation in beginning of industrial revolution, but it had one gradual consequence on children's life which caused children segregation from totality of cities and what can be considered from urban life; therefore, content of childhood and children's life limited on constructing playground, kindergarten, indoor leisure spaces, schools and residential private spaces like their own home or relatives homes.

Moreover, more or less these domains were saturated by the same manufactured product in every place of world; for instance, children in Kuğulu Park in Ankara - Turkey are playing with same 4S playground and plastic manufactured products which children in Iran in-Daneshjoo Park in Tehran do; while, post-modern cities encounter with some local characteristic and specific regional identification. In other words, urban life is non-repeatable practice in every city and has its own characteristics and its own poetic flow; therefore, manufacturing same playground for children's domain in all around the world still remained critical. For instance, in the late 18th century swing with the idea of healthful recreation become as an equipment of children play area while this equipment

considered as private recreations by both adults and children for enjoying dates back to Céret [9].

From macro scale of spatial condition of city to its micro scale there are some relations which cannot to be eliminated from topological study which is related to children's urban life. While cities in their macro scale have explicit differentiation from each other, in their micro scale related to children's domain still fulfil with more or less same type of objects and environmental elements and stimulus with slight differentiations and with less attention to the local needs of children and even local play activities and their cultural priorities. Although the notion of play is universal but the occurrence of play practice can be more effective and be unique by its locality. In another words, while every cities offers their pedestrians and their inhabitant's unique sense of experiencing time and space, children in their domains are restricted by repeating and defined predictable play practices which are universal and deprive children from experiencing and playing with modality of city.

These separations through recent decades made content of childhood fragile and secluded it through chopped time and space; as a result, most of decision making related to children's needs in design become infantile and limited to some fancy designed space in certain scale and color with unlimited considerations toward safe and secure environment. As a result, they are completely in contrast with the urban life of adult cause children were elimination from hedonistic pleasures of urban areas.

3.3. Impact of Revolution of Cities on Culture of Contemporary Play

Evolution on cities and as a result changes on family life styles, technology, and schooling system and its influence resulted on restrict classification in social orders and standardization of different functions in city specially during past-half century changed culture of play were blot out children's play activity from skin of streets [39]. Children's life become more structured and use of structured places resulted to limited outdoor play; therefore, children control on their daily life become more diminished, according

to McKendrick in 2000 children's lives limited to schools and day-care centers or under supervision of adult in their home or privatized public space. Moreover, Deveraux in 1991 implied that play grounds become ordinary and less challenging ; in addition, children spend more time of their childhood in cars while they stuck in traffic [23].

Child saving movement which had root in both counteractive and destructive results started by philanthropic and charitable movements for play and playground in USA, public education, summer camps, children's zoo and children's museums. The child saving movements shaped by the points of view of Froebel, Hall, Blow, Spencer, Wheelock, Gesell, Putnam, Thorndike, James, Montessori, and Dewey. The aim of this movement was paying attention to the child development, child study, and values of free play [23].

The era between 1970s till 1980s were considered as an era that culture of play changed according to the change in notion of childhood and familiar system. As an example, project of Japanese photographer Keiki Haginoya which was "lifelong" project in 1996 and stuck at same time. According to his record he could no longer find children in vacant lots and streets although he believed in play practice remained alive but children were abandoning from their traditional play activities by the idea of wilderness of urban area. In the twenty first century in streets and public spaces, children's free play and their existece except the time that they are accompanying their parents are rarely seen [23].

According to the survey of John Evans in 1995 play is not disappeared and declined, but by survey on the history of play till contemporary time children's play changed according to the environmental factors, educational mandate, extreme poverty, interest in sport and technology. One of the important ideas which is supports the idea of "City as a Playground" is the idea of childhood is not universal that was implied by Valentine in 2004. This idea was against the idea of 'universality' of childhood that advertised them innocent, incompetent, and vulnerable. Moreover, it was in contradiction with which was understood from childhood as a happy free time without any responsibilities.

He implied that this dominant thought about childhood is in contradict with the experiences that children have; therefore, it is not universal. One point that the hypothesis of city as a playground follow is uniqueness of urban life and its influence on culture of public. According to the idea of uniqueness of content of childhood it is necessary to nurturing them this uniqueness by different possibility according to the potential of each local area.

By changing culture of play, modern culture of play reduces the body-brain connectivity which was flourished in outdoor spontaneous play activities. Evolution of city resulted in revolution of technology and as a consequence child growing system and family life and children's play reshape. The spontaneous and unstructured outdoor play changes their shape through sedentary moments in front of computers; therefore, children loose the benefits of healthy play activity. Play transformation in twenty-first were happened by replacement of manufactured toys which in the past was created by scrap. High technology game, computer game, video game, smart phone replaced with the outdoor free play. Moreover, by media advertisement streets became hazardous environment for children and as a result children are prohibited from playing out door without their parent supervisory [38]. The article of "Street Children and Play", stressed that in spite of the fact that society point of view toward street children considered as "bad" because they are out of control of creativity model which defined and desirable by adult, street children's behavior illustrate the psychological health and resourcefulness [39]. In contrary, Anderson in 2010 implied that according to the result of 130 researches on more than 130,000 elementary schools to college undergraduates, and using meta-analytic procedures resulted in disposal children to the violent games make children more aggressive and less caring about their gender, age and cultural identification. Evidence were shown that if technology is not use in judicious ways through cyber play its negative influence on shaping brain and contributing to the problems of concentrations and shallow thinking will be remained. To sum up, hypothesis of city as a playground not only can be influential idea for enhancing environment for nurturing culture of outdoor play for children but also it can be useful idea for enjoyment of adult from city too.

CHAPTER 4

OBSERVATIONS

Observation from children's spontaneous play behavior in city wide is considered as a base for reclaiming design ideas of city elements; therefore, a separated chapter is considered for emphasizing those behavior, their importance and their differences with adult behavior which leads study to focus on city matters and its elements by means of this perspective.

City elements transmit meanings from built environment to its inhabitants which is resulted in certain behavior; for instance, bus station is a waiting place for using a bus for going to certain direction. Therefore, built environment and its structures are landmarks for transmutation of meanings and can be considered as human communicative instruments with his environment.

Interaction of children with structure of built environment is considerably distinct in comparison with adults. While bus station is a place for waiting for a bus, this space for children can be a place of momentary play; therefore, according to children's biological designed psyche for playing spontaneously and momentary in every space, children receive different meaning from built environment, or interpret those meaning in different way; buildings, surfaces' layouts and city elements encourage them to use spatial space as a tool to invent their play activities.

In this thesis study children's spontaneous play inventions were observed in two locations KIZILAY – City Center of Ankara in Turkey in May and April 2013 and AMIRABAD Street –City Center of Tehran in Iran in September 2013. The former one was free observation while the later one was a planned roaming experiment with group

of children of Nonahalan Kindergarten in 18th and 19th streets in Amirabad Street of Tehran-Iran. Both observations lead survey to quest about nature of city elements which children concerned as play units. One of the striking points in two observations was, appealing characteristic and shape of built elements for children in busy streets, "The busier the street, the more appealing to children [40]". Following photo (Figure 1) was taken in 20th of April 2013, KIZILAY, Ankara-Turkey illustrated different behavior of child while she was trying to pass over the guard.

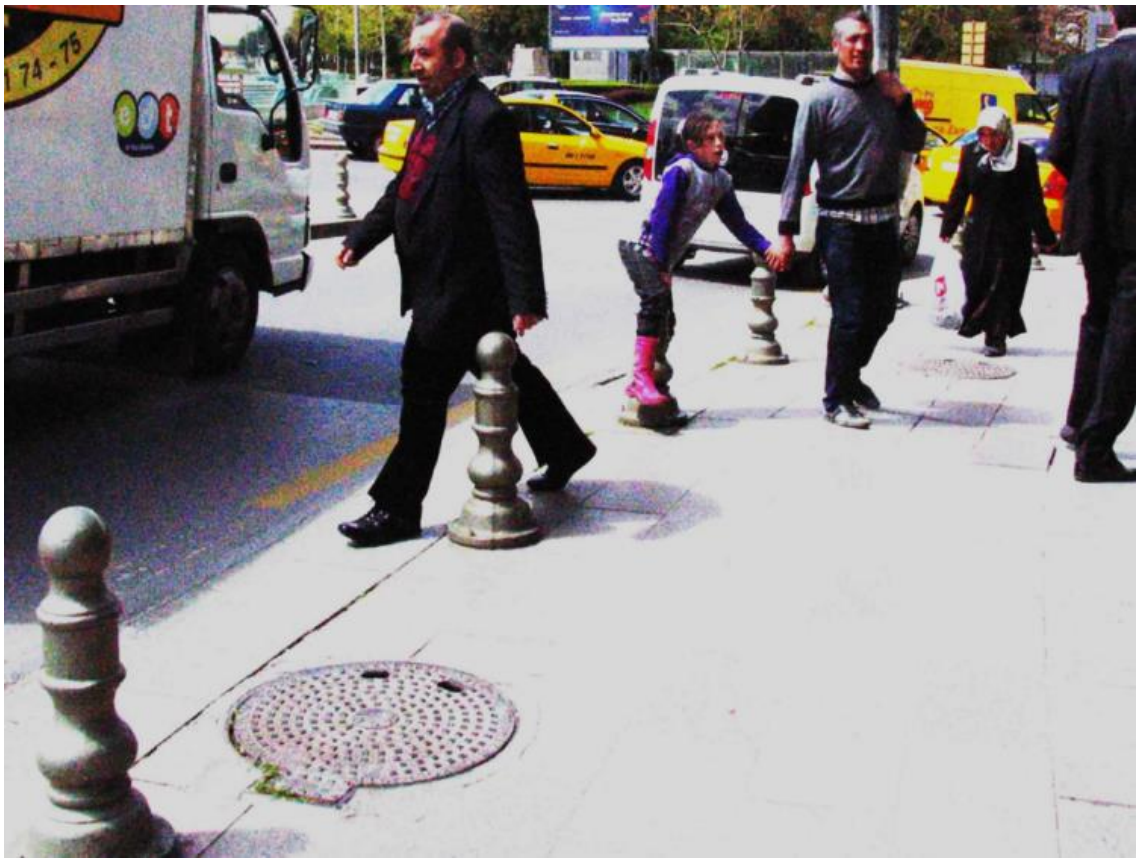

Figure 1 Girl used guard with different play behavior (Photograph taken by the author)

By comprehensive information given in chapter two of this thesis study it is revealed that children are in constant experiment and re-experiment of their leaving environment through play practices and by this way they can construct their own meaning and relation between things. By these observations it can be considered that this approach;

spontaneous play behavior is more influential than the “treatment” of building as an abstract form detached from man bodies [41].

According to the biologist Ernst Haeckel quotes in 1866: “Ecology is the general science that studies the relationship between the organism and its external environment [41]”. Therefore, a child as a part of human society is an organism with different behavior toward the external environment and built environment which should be understood separately and precisely through it. And this behavior appears through manifested spontaneous play behavior.

Children are making their theory about the world and environment around by play practice, it means that play is the way children do experiments to explore those theories and this behavior looks like what scientists are doing [42]. For preschool children process of learning through play is like a laboratory for university science student. Extending period of time in different environment helps children to solidify their learning and their development. “Hands-on experience –children’s play- is where the abstract comes to life [43]”. Therefore, through playing as a process of learning children define or encode meanings of their environment. Therefore, children for responding their need of play in built environment need to discover places through built environment and this environment is their visible environment which is“composed of all we must see in order to act successfully” [41], and city as a vast context of discovery encounter them with new exploratory experiment. Photograph below was taken in, Tunali Hilmi street kuğulu Park Ankara-Turkey in 22nd of April 2013 at the edge of stunted wall of 4S playground.

Figure 2 Girl was playing with bottle cap on stunned concrete wall of Kuğulu Park in Ankara (Photograph taken by the author)

Figure 2 revealed that the girl had preferred and had defined this surface's layout as a scene for her story telling while she was playing with a blue plastic bottle cap in her hand, and she had chosen concrete wall as a play unit instead of playing in 4S-ordinary playground which was located exactly in front of her at that certain location.

Considering the result of observations children's behavior through city and comparing those visual reports with adult's behavior in same situation revealed that there are different perceptual experiences from environment for these two groups. While street with its denotation leads adult to a certain extremity; its appearance and form of structure as an object transmit different message to children which reconciles in their playful spontaneous behavior .Therefore, while they are walking special behavior which is result of "organism-environment reciprocity" [41], appears in their each step, it means that they experience walking in variable play practice in citywide depends on street's elements. Photo below (Figure 3) taken in 20 April 2013, KIZILAY, Ankara-Turkey, revealed that boy was trying to follow yellow line and its form and texture was

appealing for him to walk along, and it seems this behavior; walking along the yellow path consciously was chosen by him while other adults were spontaneously and haphazardly walking in side-walk. While street as a familiar structure in urban design transmits meaning of direction which leads to meaning of departure in mind of adult and have common connotation of connectivity of spaces and places as well as being space by themselves [44], it becomes context of play and joy for children.

Figure 3 Boy was using the yellow line for his play practice
(Photograph taken by the author)

Moreover, it is inevitable to focus on this subject without pointing out about the content of perception because whatever is comprehend from appearance of the city and built environment lead individuals to certain common behavior which El'konin's accentuated as; signs have social nature. "The sign is a kind of gift. A gift serves as reminder of giver. That is why a sign is social and that is why it organizes behavior [45]" ; thus, it is related to the essence of public perceptual experience. Therefore, while streets can be

sign for a kind of social behavior, it can be sign of play behavior by perception of a child, but how children perceive city elements as play objects?

Based on observation which is done by James Genone in his study Appearance as reality, perceptual experience divaricated in two aspects: “direct perception”; immediate awareness of object around us in our living environment; and, “perceptual error”; misleading and mistaken perception. He implied if by means of perception we can directly be in contact with objects with environment how this perception can be ever misleading or mistaken? [46]

It is considered as “acquaintance with objects”, James Genone defined acquaintance as basic relation between objects and conscious awareness which completely differ from propositional knowledge of them. Therefore, by distinguishing inherent quality of objects like; shape, color and size and their appearance properties; i.e., “property of a coin appearing elliptical when viewed from an angle” [46] or property of a white façade which is blue or colorful, but by lighting system can appear blue. He argued about epistemology of perception which is related to our understanding of the relationship between appearance properties and intrinsic properties of objects [46].

Observation which is done for documenting of visual reports of children’s spontaneous play experience in city wide in Ankara; revealed that children’s perception and interpretation from environment in most cases are depend on appearance properties of that elements more than intrinsic properties.In children’s cases while each one passing through street they invent their own play practice which in most cases are different from others and it is hard to predict about their spontaneous play invention. On the othr hand, it is easily seen adult interactive approaches through their built environment are mostly same as each other and it is according to principal courses of image’s language such as similarity, anomaly, continuation, closure, and proximity can determine approximately common message and meaning from their built environment and it is same because it is definite consequence of man environmental experience [47]. Therefore, with this hypothesis it is possible to explain why the reality of elements of the city can change in

the context of childhood, because it is observed that children as a part of society permuted city's elements' functionality to the transmuted function of play unite. Moreover, and we may consider that every child can interpret that structure as a different specific play unit and it seems most of surfaces in architectural object has same "demand character" [41], which according to concept of affordance inspire children for having play activity. The following photo was taken 20 April 2013, in Tunali Hilmi Street near to Kuğulu Park Ankara-Turkey illustrated that how the child use boundaries of tiles for matching her tip toes with each square and invent a playful action. As illustrated in photo this action was completely in her level of consciousness and it revealed that how child was integrated to the material and form of the tile to coordinate her tiptoes with the form and its borders.

Figure 4 Girl used boundaries between tiles for her spontaneous play behavior (Photograph taken by the author)

Being inferred from the study of "Children's understanding and use of visual codes in their drawings about environmental phenomena", if we consider that each structure in the city has a function for visual communication and with its visual representation can construct message and have an autonomous system of meaning making; these meaning related to children's perceptual experience can be in variable and unpredictable types,

but they have potential for denoting as general object for play too; i.e. while log which is consequence of decision making in built environments which can be located in streets or pavement as a natural object; for adult pedestrian denotes as a log; a portion or length of the trunk or of a large limb of a felled tree [48], but for children can be as a play object. It can offer children to jump over or using its surface like table surface for composing their imaginary foods; leaves and stones, on it (Figure 5 & Figure 6). This simple comparison shows that commonly children are involve to appearance properties of objects more than its inherent qualities because of their different interpretations which are revealed by different type of play practice and can prove this claim that same structure in street can be determined as a play unit but with different play types. Figure 5 and Figure 6 were taken in 20 April 2013; Tunali Hilmi Street near to Kuğulu Park Ankara-Turkey, while girls were preparing their imaginary food on the log surface.

Figure 5 & Figure 6 Children defined log as a play element
(Photograph taken by the author)

According to the Koffka's perceptions from Gestalt Principals, objects "tell us what to do with them" , and he called them "demand Character of things" or "invitation character" or "valence". There is a difference between Geshtalt's demand of object and affordance of Gibson the first one pointed to phenomenal and behavioral and not to physical and geographical subjects. Koffka implied that "the object offers what it does because it is what it is" [41]; but it seems this idea related to children perceptual experience in their built environment cannot be adopted with both two, because certain city element is not a certain play unit but according to children's perceptual experience

it can be a kind of play object. By behavioral and phenomenal considerations according to Gestalt's idea, as long as usage of stairs by people, it is continued to be considered as stairs, but at the same time children can use them as play unit which, by behavioral aspect, can be considered as play unit, not stairs, and by Gibson's Idea, as long as existence of certain objects in space, it is certain that object even with no usage for anybody, but according to children behavior it can be also play unite even if no body uses it. Following photos which were taken in Amirabad-Street in Tehran can visually describe this quality. This part of observation which is done with a group of children who were roaming through two streets in city center of Tehran and their spontaneous play behaviors were recorded in video format and some snap shots of those video were selected and attached in this chapter and appendices chapter of this thesis study.

Figure 7 & Figure 8 The boy inspired by phone booth and he started to use this object for his imitate play, and in at right picture it is shown how girls tried to find out the functionality of mail box (Snapshots taken from video recording by the author).

Figure 9, Figure 10 & Figure 11 Children were trying the guard in streets and their behavior revealed how the form of objects inspired them for certain behavior; for instance, the hole at the top of it for discovering inside or its softness and its flexibility for punching it (Snapshots taken from video recording by the author).

By means of counter-ability of object; “which meaning objects striking the eye have and for whom they have a meaning?” [41], it is considered that object lies for human existence, it may give an explanation about the ability of all attached or mobile objects for becoming as play unit for children. “Each single object is endowed with sense and form by some function of human life” [41] and because of the relation of man with everything surrounded him as counter-ability in his built environment it makes sense that his children find a kind of relation between themselves and structures of built environment. “And according to Gibson, all ecological objects are full of meaning to being with. Surfaces, their layout and substances they delimit always exhibit affordances for someone” [41]; therefore, it is understandable that every element in a city from children perception can be a play unit for their spontaneous play activity. Following photos illustrated this affordance of objects and elements in city and its counter-ability for being play unit. Figure12 and figure13 are illustrating children’s experiment with the empty construction in front of building.

Figure 12 & Figure 13 Children are in constant experiment and re-experiment of empty space in front of the building construction and children tried their foot prints on sand inside it (Snapshots taken from video recording by the author).

Figure 14, demonstrates gate of parking belong to a building and a boy tries to climb up from horizontal line and ladder form of it.

Figure 14 Boy was trying to climb up from parking gate and its horizontal parallel lines (Snapshots taken from video recording by the author).

In Figure 15, children tried to snoot when they discover mirror on the door of a building in street.

Figure 15 Children changed their facial mimic in front of mirror part of building entrance (Snapshots taken from video recording by the author)

More photos attached in appendices chapter.

CHAPTER5

RESULT OF DATA ANALYSIS OF QUESTIONNAIRES

Unprecedented rate of urbanization, had influence on children's life style and their growth all over the world. One of the major problems which pointed is out in the study of "Impact of Street Design on Children's Independent Mobility"[2], is lack of independent mobility or lack of opportunity for playing out door. Design characteristic of the street by itself considered as both contributing to the problem and their potential as a solution [49]. The idea of city as a playground can be solution for eliminating children's segregation from city wide and street by reclaiming design idea of some elements in streets.

Children's autonomy of movement was declined by unprecedented era of urbanization. In the study mentioned above was cited from Prezza, Pilloni, Morabito, Alparone and Giuliani in 2001, who believed in the point that in contemporary era free circulation of children in their neighborhood and chance of meeting and playing with other children in free space are possible just for a few number of children. Moreover, as cited from Hillman and Adams in 1992, who conducted the most famous record about (IM) the independent mobility of children, revealed that in 1970 children mobility in age group of 7-8 dropped down from 80% to 10% in 1990. In addition, Giuliani, Alparone, and Mayer in 1997 in Italy and Salmon, Timperio, Cleland, and Venn in 2005 in Australia reported the decrease of freedom of movement in children's daily life, while we are encountered with lots of documentation about beneficial impact of outdoors and spontaneous free roaming and playing on physical, social and cognitive development of children. Giuliani, Alparone, and Mayer study in 2000 claimed that in ages of 7-11,

[2] It was student paper winner in 43rd Annual Conference of the Environmental Design Research Association Seattle, Washington May 30 – June 2, 2012

spontaneous free movement in the neighborhood associate with pro-social behaviors, Whitzman, Romero,Duncan, Curtis, Tranter, and Burke in 2010 implied that obesity is a result of the lack of independent mobility. Another important reason cited from Mattson in 2002 revealed that parent's chauffeuring associated to the lack of children's independent mobility [49].

All those citations above support the idea of "city as a playground" for bringing content of childhood back to the context of city by considering the point that, one of the key components of city or built environment is street. In this thesis study, IM independent mobility of children is understood as a root for inventing spontaneous play while children roam through city wide. Some design ideas and their necessities are described in chapter six of this study for bringing culture of outdoor play, back to the city. Therefore, before applying any reclaiming design considerations on some elements in the city, it is necessary to estimate public tendency, and their perception toward the city as place of joy and play.

By understanding city as a medium which through design can foster children to participate in urban everyday life [50], the idea of "city as a playground" was considered as a medium of playful education for responding needs of contemporary children to have opportunity of outdoor play in their built environment.

The target group for design idea of this thesis study was defined according to the needs of preschool children for having spontaneous and outdoor play activity, but as described in previous chapters, it is inevitable to know perception of entire publics about concept of city-Ankara- as a place of joy and play. As described in previous chapters, by the design ideas children will encounter the interactive play behavior with stranger while they are going through city wide with their caregiver. Therefore, for understanding perception of the public as a user of this design idea it was necessary to prepare questionnaires for both children and their caregiver, because children are under supervision and under the power of their caregiver's decision making. Through the survey it was recognized that for bringing children to the city wide, design idea should

influence on both children and adult; as a result, it was necessary to compose two kinds of questionnaires for estimating both needs and perceptions of adult and children toward the subject. Questionare prepared for people and children who live in Ankara and spreaded among diffrenet people in society.

As a result, first outcomes of statistical analysis related to children perception toward Ankara as a place of play were implied in this chapter. Second, outcomes of adult's questionnaire were implied as an influential outcome on the first one. Details related to the nature of survey, methodology for analysis, tables and figures and sample of questionnaires attached on chapter of appendices A,B,C, and D of this thesis study.

Data analysis of children perception about city- Ankara as a play space:
Questionnaire prepared for children was included 13 questions. Population of this survey selected randomly. The Cross tabulation analysis and Chi-square test in SPSS-20 was used for categorical data analysis. And ages from2 till 17 were concidered as ages for children's and youth's respondants. Although target group of thesis study is include preschool children, in the questionare large ages interval were selected because proposed design ideas will be installed in public spaces and they have been conciderd to respond needs of other members in society as well as pre school children.

Total frequency of this sample was 91 children. 46 frequency or 50.5 % of sample constitute of boy's responses, and 45 or 49.5 % related to the girl's responses. According to this data gender division is approximately equal. The result of questionnaire from children listed below;

1- Children of Ankara prefer to play with children whom they do not know them. 63.7% of total population of survey preferred to play with children who they see them for first time. This result is important because it shows that context of city can provide this interaction between children. This tendency of children revealed that by enhancing city as a place of play and joy, children can boost their interaction with others.

2- Most population of study in Ankara preferred outdoor play space among different play spaces which were offered in questionnaire; Grandparents home, 7.7% < Shopping center leisure space, 9.9% < Their own home, 12.1% < Their own room, 13.2% < Streets and Parks, 57.1%; in other words, Playing in indoor space, 42.9 < Playing in outdoor space (Streets and Parks), 57.1%. This result makes clear the need and tendency of contemporary children in Ankara for having play through physical structure of the city, as a result boosting city as a place of joy through reclaiming design elements in city can fulfil this need for vast population of children.

3- 82.2% of children preferred accompanying of their parents while they are going in city wide, with this tendency it is predicted, applying design ideas which are proposed by this thesis study can enhance the interactive time span between children and parents, and provide sense of attachment toward city for both adult and children.

4- From total population 60.7% of children do not have sense of attachment toward city, because 52.3% of boys and 68.9% do not believe that city is belonging to children. This result revealed urgent needs of new considerations for involving children in their built environment.

5- From total population in a sample 65.6% of children still are playing in streets, and it shows that still street play can be demanding for contemporary children in Ankara. Therefore, it is predicted that it is possible to boost built environment toward responding this needs by some new considerations in design of elements in city and policymaking process in this regard.

6- From total population in a sample 64% of children are not regularly playing with children in their neighborhood. This result needs further survey in different neighborhoods in Ankara to examine effect of forms of building and density of residential area and its influence on the culture of children’s regular play with

7- children in their neighborhood. This result also revealed that residential neighborhoods in Ankara cannot respond children's need of play in regard of fulfilling their needs of social interaction through free play.

8- By preparing a question like; which elements is more interesting for children in the city?, it is possible to set further research on both sides of this result for enhancing built environment according to child's interests. Results of question about Interesting city elements for all population of sample are: Bus station 5.7 % < Pedestrian Bridge 6.8% < Sidewalk 11.4% < Window shop 27.3% < Streets 48.9%; In addition This result directly connected with the proposed design ideas in this study, and reveled that reclaiming design of which element will be in priority for further study and re-examining design considerations for further play unit constructions on city elements.

9- 76.4% of population of the sample expressed that they became bored while they are waiting in bus station and it can be a reason that this city element are not interesting elements among selected elements in this survey. Therefore, reclaiming design of this element in city wide can enhance Ankara's richness in regard of child friendly environment; moreover, entice children and adult for using public transportation, while they have momentary interactive play practice in bus stations.

10- 65.6% of total population of this study preferred bus for traveling through city wide. This result reveled that approximately in contemporary culture of childhood public transportation and precisely using bus for transportation is demanding. This demand revealed that by enhancing structure of bus station as a play unit, it can be possible to entice children's attention to the importance of these elements, and public transportation in livelyhood of city and by this means make them attached to the everyday life in city. Moreover, bus station selected as a reclaiming area for play unit because there is always a possibility of gathering people for short span of time for interactive activity.

11- Preferred City elements among population of sample: Building 42.0% > 29.5% Bus station > 10.2% parks and streets > 8.0% pedestrian bridge. This result revealed that the needs for reclaiming design of pedestrian bridges as a 'maze' (play unit) which will be mentioned in following chapter, because the result of data analysis revealed that by the perception of children there is less value or importance on this element. For boosting the importance of this element in built environment and educating children about traffic rules and their well-being this element became precise through next chapter as an element which is needed for reclaiming as play unit in city.

12- From total population of sample 87.9% of children respond that it is not possible to play in every place in the city, while 12.1% of children's perception oppose this idea. This result can revealed that city of Ankara is not child friendly city in regards of responding to the initial needs of children to play, and it needs serious considerations through its physical body to become preferred and accepted by children.

Data analysis of adult perception about city- Ankara as a play space:

For recognizing adult perception about Ankara as a city of joy and play for children, a questionnaire was prepared for adults in Ankara which was included 11 questions. Level of measurement or type of questionnaire which were used is categorical type of data analysis. Among 82 frequencies in this survey, 26.8% of population included male responses while 73.2% of questionnaire responses were related to the female responses.

1- Among 82 individuals who answered to the questionnaire, 51.2% of them have one child. This percentage revealed that the hypothesis of "city as a playground" can provide a context of social interaction among children who do not have any opportunity to play regularly with their sibling. Family with 5 and more than five children 1.2% < Family with 4 children 2.4% < Family with 3 children 7.3% < Family with 3 children 7.3% < Family with 2 children 36.6% < Family with 1 child 51.2%.

2- The result of question which was asked adults about their preference to have their children's accompaniment while they are going in city wide for different aim, revealed that from valid 82 answers for this question 75.6% of respondents prefer to go in city wide with their children and 13.4% of population of survey just prefer to go in the city center if there is necessities but they do not prefer bring children with them; 3.7% of people prefer not to take children in city center because it is not proper place for children < 4.9% of people do not like to go in city center for any reason < 13.4% of people express that they are going to city center but they prefer not to bring their children < 75.6% of people prefer to go in city center with their children. Therefore, it is revealed that among already existed elements in city, sprit of city center by itself have enough attraction or value for adults as citizens in Ankara. As a result, it is predicted that if there will be reclaiming design for some elements in city center this percentage will increase impressively.

3- A question was asked from adult to estimate that 'is roaming in citywide by itself desirable for adult?', because although 75.6% of adult prefer to take their children in city wide while they are going to city center for certain aim, they might think city is not proper place for roaming and wandering around. The importance of this result is that if adults as children's caregivers are not going to use city as a roaming space, the possibility of bringing their children to the city wide will be decreased because seeing children in the city depends on adult's needs and their certain aims for going to city center. Therefore, children's participation in everyday life performance will be increased while their parent's participation in roaming in city wide will be demanding. Result of this question can make clear the need for reclaiming design of some elements in city in a way that enticing public to go to city wide with the aim of roaming in streets. The result revealed that 59.2% of populations of adults prefer walking through city wide; while, for 47.6% of population think roaming in city wide is not desirable.

4- The question; ‘Is visiting city interesting for children?’ was asked from parents to understand their perception about city as a place of joy and excitement for children. Result revealed that; 56.1% of population of survey believed that visiting city is not interesting for children and 42.7% of population had opposed idea. This result revealed that by some adults’ perception city is not belonging to their children; therefore, it can influence on their decision making about kind of play which their children can or should play in specific area or domain.

5- Design ideas which were discussed about through next chapter are following one of important aspects of every child friendly city; ‘Play’. A question was asked through questionnaire about this point to estimate adult perception about needs of children for play through city wide and the result revealed that; although, play was considered as one of crucial needs of children. Adult perception in Ankara focused on safety considerations as sign of child friendly city more than focus on their constant need for playing. Although, in questionnaire these safety considerations were not precisely clarified that; ‘in which sense’ and ‘which level should make children’s environment safe?’ Therefore, it seems that perception of safe environment is twisted with the contemporary perception from children’s environment. The result which was obtained is; according to the perception of adult in Ankara, the most important characteristic of child friendly city can be defined; using bright and flashy colors in built environment = City’s constructions according to the size of children 4.8% < City’s constructions should be playful and creative 25.3% < City should construct according to security and safety considerations 61.4%.

6- In previous stage adult’s perception about child friendly city seemed more related to the safety considerations than being playful and creative for children. In this level while through questionnaire was asked about children integration to the city and its relation with their creativity, 70.7% of adults believed that children’s integration with their city effects their creativity. It is one educational role of built environment which was asked from parents and the result of it

7- revealed that 83.1% of respondents believe that, urban life and city structure and its elements can educate children about rules and norms of social life, while 15.7% of population had opposite opinion. This point revealed the necessity of applying the hypothesis of "city as a playground" in Ankara to integrate children and adult with already existed source of creativity and education; 'City'.

8- While it was asked parents; 'do they prefer to go in citywide and city center with their children or they prefer to go alone?', from 83 valid answers 66.3% of population preferred to go in city wide while they are accompanying with their children , but 32.5% of respondent prefer to go in city wide alone.

9- Question asked about usage of the city by adult to estimate how much adult use city as a place for roaming and the result in table 46 revealed that; 4.8% of people regularly go to city center with the aim of roaming< 18.1% of adults believed that just roaming in city is interesting and enjoyable activity < 32.5% of adult do not like the city (Ankara) that they live in, and they are just obligated to go through city wide and respond to their needs < 43.4% of adults respond that if there will be some needs and aim for doing things they are going in city wide. The result revealed that citizen's perception about Ankara is; Ankara cannot be considered as a place for spending spare time in it; although, they believed in the point that city can educate and influence on children's creativity. Therefore, it seems that although city can be a place for boosting children's creativity, it needs some stimuli in this regard to entice children and adult for coming through city wide willingly.

To sum up, the results listed above revealed that hypothesis of "City as a Playground" can influence on culture of play in built environment in city of Ankara and boost its built environment toward child friendly environment , and it might have positive and influential impacts on inhabitant's perception about Ankara as a place of joy and play, because results implied above illustrate the need and necessitate this change to make city as a practical context for play, education and creativity.

Therefore, by redesigning city elements based on children behavior the transmission of social meaning and information among large group of children will be spread out, which Vygotsky called it as “intersubjectivity” that allows children to share their experiences [51]. Hence, these design ideas boost environmental stimuli to assist other child in higher levels of learning. According to the Vygotsky while child participate in collaborative interaction, their performance ability achieves to a higher level which it is not possible by their own practices [51].

According to the article of “Investigation the Importance of Teaching the Student on Children’s Architecture Based Upon The perception of the Children”, it is important that the value of space is determined by its function rather than the color and form,and this point was missed in designing for children’s domains in our contemporary era. In this study were pointed from Matthews 1992 and Christensen 2003 which the perception of adults about the physical environment are more based on form, aesthetics and function, while children’s recognition of space is more based on its function rather than aesthetic [53].

Moreover, building a sense of place attachment is important because according to children’s cognitive development and the theory of childhood; by developing sense of attachment they can develop the sense of favorite place in physical environment or toward the architectural form. In other words the architecture was understood as a structure which stimulates children’s cognitive functioning and gives a chance to children to socialize in their own choice and control. Examples of kindergarten as children’s domain given in the study mentioned above, considered as a case of adult domination on planning and design. Although, children in this space can “experience variety of plastic toys and furniture in a controlled micro-climate where temperature, humidity and lighting are similar throughout day duration that they stay in the building”, their cognitive ability of children is restricted and limited through same repetitive experiences. While outdoor built environment with unlimited stimuli which cited from Prescott, 1987 and Olds, 1989 in this study; such as, natural and dynamic microclimate

like snow and rain can encounter children with various experiences and help them to understand relativity of man-made structure and timeless dynamic stimuli [52].

Two answers were considered for that question which shaped the genesis of ideas, and by considering the points that game is organized play, or ruled-based play [53], these ideas find their ways in reclaiming design of some elements in city to organize spontaneous play through gaming system. While, play can be restricted in an individual experience, game or organized-play proper a context for sharing same experience with others, in spite of at hand unique personal experience [53]. These rules clarify specific path for player to reach defined goals as well as different personal experiences;

1- All children's spontaneous play behaviors are different and unique, while one children use different surfaces layout as a jumping level another one prefers just trying them as edges for walking like tightrope walker. Therefore, experiencing and understanding other children's discoveries are important for educational aims which are followed by ideas of these play units.
2- For targeting city as a context of play, it is necessary to construct some game structures in city wide which obey same common rules, in this way every inhabitant and specially children despite of having their own unique experience with play unite, will enjoy a common experience. It means that reshaping improvisational individual free play through system of game for all. Therefore each children's spontaneous play activity can become a sparkle for new ideas of producing structured game in physical environment and context of city, for common use of children and public.

For this aim understanding the notion of rules of play in game design seems fundamental and crucial to put under considerations:

1- Rules are considered as one of defining qualities of game, and shape formal structure of games [53]. In design ideas of this project these rules are under influence of physical structure and function of each selected elements in the city.

2- Rules considered as fixed part of game and play; although, it is possible to make some experiential changes to games but rules are not changeable and considered as formal structure of play [53]; therefore, one spontaneous personal play practice can transform to the public game experience.
3- Through design ideas of this chapter, rules established by potential of physical environment and their potentiality are primarily scheme of rules of play or strategy which will be used in each play unit; therefore, the formal identity of game will shape by rules of physical environment and its inherent quality. This is considered as a quality that each spontaneous children behavior was shaped by it.
4- Rules of games are distinct from rules of etiquette, law, war or other social rules. Although, games are totally and intrinsically artificial and separated from "real-world" context, they can occur in real context of everyday life and through other rules form of ordinary life [53]. This is the point that can twist world of children to the real everyday life in the city. Therefore, spontaneous children's play behavior can be reshaped toward functional game.

Therefore, it is necessary that design ideas follow some general characteristics of functional game which is listed below to illustrate how those spontaneous and unique children's behavior can be represented as a common play activity by certain city elements as play units; rules will limit player action, they are explicit and unambiguous, they are shared by all players, they are fixed, they are binding, and rules are repeatable [53].

In this study albeit of collecting visual documentation of children's spontaneous behavior in streets and city wide, result of questionnaire from both users and their care giver attached to the chapter five and appendices chapter to emphasize needs of target group for being integrate with city by the channel of play.

According to the study of "Neighborhood Play Environments Design Principal for Latchkey Children" 8 principals are considered as crucial principals in design

environment for children which by referencing to them it is possible to support design ideas for this study and its capability of fulfilment of children's needs to play in city [54].

According to Garbarino's in 1978 cited in study Neighborhood Play Environments Design Principal for Latchkey children; 'social environment become empty of childhood'; this point is considered as one of problem of built environment; therefore, not only cognitive development of children is important, but also socio-emotional development and their interaction with socio-physical environment is considered as crucial factors for empowering three aspects of development in childhood. Physical setting as a potential for spontaneous play is understood as a factor which influences the degree of children engagement and interaction with the living environment. And these facts can be extended from home as a child environment to city [54].

Carruscoin 1977 and Hole in 1966 which are cited in study of "Neighborhood play Environments Design Principal for Latchkey Children"; revealed that children from different cultural context tend to have outdoor play activities and 85% of them spent their time on spontaneous play in undesignated areas. More in 1980 implied that children's play can extend out of school yards, playgrounds, and special spaces for play can be transformed in found spaces like porches, sidewalks, curb areas, and stoops. He implied that those areas are more usable than school's yards and play grounds [54]. A comparative example from adventure playgrounds and traditional playgrounds revealed that in adventure playground because children try to find things as well as space, it become more inspiring for their cognitive ability than ordinary traditional ones [54]. Therefore, "city as a playground" has a vast potential for adventure and in comparison with adventure playground, it has priority of boosting social interaction without considering age and gender separation and these kind of classification. Moreover, in "city as a playground" like adventure playground, the interactive participatory role of parents with their children play practice will be accelerated. Principals of designing and planning for children's environment to response their need of play listed below:

Principle 1: entire environment can be considered as a setting for play environment and all environments and its setting are necessary for both research and design. “We must stop our myopic focus on playgrounds, and look at the total environment of play if we are to begin to serve the outdoor needs of latchkey children [54].”

Principal 2: Policy maker, recreational leaders and educators are considered as who can provide variety of play activities which response to cognitive, social and motor development of children as well as their integration with physical environment. Physical environment setting can provide various opportunities for spontaneous play, enhancing friendship networks as well as network of spatial spaces which enhance educational capability of space with combination of informal and organized play [54].

Principle 3: it is necessary for planners and designers to provide qualities and characteristics for special spaces which contain advantages of three types of playgrounds; traditional, contemporary and adventure playground to fulfill all different aspects of children’s need by considering complementary role of each one [54].

Principal 4: providing play area should not be the only aim of planner or designer it is necessary that interaction of children, adult and social members and ecology of play, putting under considerations. It means design not only should provide a context for children, but also should provide a context for adult’s active engagement with children’s play activity and eliminating children’s domain segregation from adult areas, “On the macro scale, this is perhaps the most important principle of all. Interfacing play setting with areas of adult use can provide not only informal interaction but facilitate both formal and informal supervision and surveillance [54].”

Principle 5: One important responsibility which a designer and planner have, is providing variety types of play environment with considering appropriate locations for example adventure play yards can be small or large. Parks or contemporary play environment is dotted through inner cities as leisure spaces in shopping malls [54], which still they have a problem of segregated play area or children’s slaughtered spaces which slaughtered the continual content of play.

Principal 6: albeit providing well-known types of play environment it is necessary to provide and develop new context of play environment for example natural play environment provide opportunity for children to play with nature or European style of

adventure and Swedish and Canadian style of creative play based on the idea of building and making through doing [54], and hypothesis of "city as a playground" open context of city to interpret its physical structure as a play – educational unit, playing through discovering rules of social life and function of each elements in city.

Principle7 : Decision making and design idea not only should provide designated play environment but also should cultivate by quality of play in urban, suburban, and rural environments. Moreover, normal fabric of each neighborhood should include variety of play areas for formal and informal games for all ages [54].

Principle 8: providing network of play by linking different types of play, elements, play environment systems and give spontaneity, prosperity, lucidity, continuity to the environment by play design consideration [54].

These proposed play unit considered as signs for power owners, adult, and children and for transmitting massage that city can use as a playground which can be accentuated city as a context of play for children. In the study of Child Development Theory and Planning for Neighborhood Play, there was a citation from Goodman in 1979; "Playgrounds were away from isolating children from dangerous city but also the city from dangerous children [55]"; Therefore, by reclaiming design of some structure in city as a play unit and organizing children's spontaneous play through functional game, it can transmit the message of city as a context of joy and play and as a place belonging to children.

Children should be considered as citizen of city and city elements should respond and flourish their constant needs to have play practice as one of their primitive needs. Hence, spatial properties of space are stimulated children physical movement and their cognitive scanning as well as their social transaction which will be resulted in children connectivity and attachment with their living environment [52]. Therefore, in design ideas which are composed based on observations in certain locations in two city centers in Ankara-Turkey and Tehran-Iran, this aim was put ahead. For heading this aim, reclaiming some elements in city can nourish children's sensory and aesthetic sensibilities while they support its function. In this way design ideas shape 'affiliate

bonding' between built environment and children's cognitive awareness to the external stimuli and social interaction [52].

As result of observations from children's spontaneous behavior which was revealed in previous chapter; children's response to the demand of object in physical environment, occur through play practices and they tend to invent their own behavior through discovering things in immediate environment which is oppose to the ordinary defined use of objects for adult. According to the citation from Kytta, 2003; in article "Investigating the Importance of Teaching The Student On Children's Architecture Based Upon The Perception Of The Children"; children's perception can considered as an active experience which is integrate with discovering information through mobility; therefore, built environment and its architecture involve in matter of 'Movement' and 'perception'; hence, for planning and designing of space for children the important fact is how children see the space and properties of environment [52]. This point by itself can support the richness of the city structure and its stimuli; in compare with, limited and predictable stimuli in children's domains, for roaming through places and discovering things.

In the study of "Child Development Theory and Planning for Neighborhood Play"; children considered as a major group of urban inhabitant and play defined as a tool for children to become acquainted with the world of adults; moreover, it is accentuated that usual point of view toward city as dangerous and polluted environment considered as general point of view which avoiding children from the city. A citation from Jacobs in 1961 in this study revealed that it is possible for children to recognize the urban life, but in a way that they have opportunity to play in streets; moreover, author cited from Hart in 1986, that street play give spontaneous moment for spontaneous actions to the children; therefore, the sense of unpredictable events make it adventurous which is considered as initial components of children's development. Author By referencing to the Piaget's statement in 1951 discussed about subject of play as a tool for exercising imitation in children's life which is considered as a factor of improving capacity of representing events by children [55].

In addition, play was known as intermediary gate for adulthood and children by imitating events are passing through this gate, and by play behaviors formulating reflections of happenings, for their further use in their adulthood [56].This point revealed that the context of city prepare various examples and choices of events like adult's behaviors, for imitating and learning which in compare with children's domain is definitely rich and adventurous.

"A celebration in the street, a dog runs over a car, the grocery lady at the store who gets furious, etc. [55]"; these are ordinary activities and events in built environment which has possibility to run in to children's play practice and their imitational activities; therefore, accessibility of children for touching adult world for feeling and observing events is important for replicating them through play practices to define their own meaning and values; therefore, city can be a rich context for children as a source of social events and stories which they can become witness of urban life occasions. The artifact of city and its social interactions is a context for children for being witness of adult engagement with their everyday life [55].

"If the child, in moving around in his surroundings has the chance of brush up against, craftsmen ,shopkeepers, clerks, public transportation personnel and to enter places such as workplaces, cafes, shops, bus stops and whatever else continues his adult life-to-be, he also has opportunity to make them his own and to draw closer to their mysteries [55]"; by this quotation the inherent rich quality of urban setting for enticing children's attention by its ordinary events and structures, revealed. These design ideas by reclaiming some elements of city can change public point of view toward urban everyday life; moreover, children can learn and explore the urban matters under supervision of their caretaker; therefore, while children and adult navigate city, it will become context for joy and play.

According to the Parr's statement in 1967 which cited in article of "Child Development Theory and Planning for Neighborhood Play", while mobility of adult were increased in the city children's mobility were decreased, and using own private car increase

perception of “non-dangerous” areas for society members. Also by the dense permanent residence in every space in city children restricted to have spontaneous play performances in their neighborhood. Moreover, drastic changes in size and scales of buildings in different neighborhood first prohibit children use of neighborhood environment as a play area because their parents cannot keep their eyes over them second, these kind of residential areas are not much friendly with children because children are in constant probability of encountering with strangers while they are alone. Therefore, insufficient time of parents, size and scale of residential area; in addition, its density and community distances considered as factors which influenced on free children’s exploration and paly in their neighborhood. In contemporary urban life children generally do not have opportunity to use courtyard or walking all distances between their schools and their home or having a place for gathering with their age group in their neighborhood, even children do not have occasion to go and buy some groceries from grocery store in their neighborhood [55]. These reasons revealed that continuously and steadily needs of new idea in design for re-union content of childhood to context of city.

These ideas which proposed by assuming “City as a Playground” entices children to be aware and use their immediate environment and set their own play practice with using a certain play unit at the moment in every place of citywide. It gives sense of attachment to the children as well as sense of identity. “In this manner the apprenticeship of neighborhood space reflects the gradual constructions of the child’s identity, achieved also between two polarities of dependence versus autonomy and closeness versus distance [55]”.

According to the same study the playground setting and its layout dictated children for certain behaviors and lessen the chance of facing them with unknown while children in urban life have constant challenge of discovering unknowns because of unpredictable events and its changeable flow. Moreover the collective feeling just share among certain age group not between all society members who are in different age ranges. Although, the word of “Jardins Robinson” which use in French for adventure playground give

children opportunity to build their play environment, but it stressed on isolated island for children creativity which prohibit children from spontaneity of imitating activities in adult world.

These ideas were shaped according to indirect children participatory in design and user demands from spatial space production; in other word, children behaviors and their reciprocal responses toward some structure were footstones of formations of these ideas, to response their need of discovery and involvement with their city as their domain. Before describing specific design ideas in this chapter it is necessary to survey historically on seven realms of children's participation in city planning and design. According to the article of "Seventh Realms of Children Participation"; advocacy, romantic, needs, learning, rights, institutionalization, and proactive realms are considered as historical and political effective way of children participatory in design and planning [23]; which in following text a brief descriptions was given about importance of each one. Some characteristic of child friendly environments are include: Accessibility, Diversity, Control, Mixed use, Adventure, Safe but not without risk, Meaning, Autonomy, Socialization, Convivial, Serendipity, and Participation [23]. Children's domain segregation in contemporary life was structured childhood and changed culture of childhood and brought the notion of children's participation in as advocates for their needs in design projects and planning. The seven categories considered for children's participation in design and planning:

-Romantic theory with approach toward defining children as planner or children as futurist and stand on the idea that most of the time children can make their own future without adult involvement; this theory support the idea of children can define their city. This theory matured by works of Mayer Spivak, Nanine Clay, Simon Nicholson, Ray Lorenzo and World's Futures Society, World Wildlife Fund, Childhood City were important organizations in this regard [23].

-Advocacy theory with approach toward work of planner for child were shaped by works of Paul Hogan, Jeff Bishop, Karl Linn, Randy Hester and relied on design and planning needs advocacy by adult planner and theory shaped based on children's interest

which advocated by adult professionals. The major limitation of this theory is segregation of plans and places [23].

-Need theory approach of this theory is based on the necessity of social science for children and shaped according to the children's needs and incorporation of spatial needs of children with design is objective of this theory which flourished by works Kevin Lynch, Roger Hart, Clare Cooper Marcus, Florence Ladd, Robin, Moore, Joost van Andel, Patsy Owens, Louise Chawla, Gary Moore and some Organizations like Environmental Design Research Association; American Horticultural Society; Urban Parks Institute. This theory contributes to the principals of making good environment and this theory considered as effective part of research on environment and design [23].

-Theory of learning shaped by considering children as learners and aim of their participation through environment is education and learning the value of learning which is outcome of participation is considered as one of important aspect of change in environment .therefore, living environment considered as an educator and works of Doreen Nelson, Elaine Adams, Sharon Stine,WendyT itman, Susan Goltsman relied on this point of view as well as Landscapes for Learning; American Institute of Architects organizations [23].

-Theory of rights: by this theory children recognized as citizen who have rights to protect with the aim of children participation in planning and city decision making. Work of Roger Hart, David Sattertwaite, Sheri Bartlett, Robin Moore which done based on this theory and it is more based on children's rights than their environmental needs. Organizations which worked in this regards include IPA; UNICEF; Childwatch International; Save the Children; Ray Lorenzo innocenti Institute of Florence [23].

-Institutionalize theory; by this theory children considered as adult with the approach of planning 'by' children but within boundaries of institutions which set by adult authorities and clients and works of City officials; child advocates Organizations: Children City Council, UNICEF, Child watch International, National organizations concerned with children, were based on this institutional theory [23].

-Proactive theory; proactive theory shaped based on the idea of planning 'with' children with the aim of 'participation with vision'. In this theory children considered as an active participant in the process. Empowering childrearing making substantive changes

in city and environment is one of strong vision of this theory. people and organizations that involved in this idea includes: Randy Hester, Marcia McNally, Laura Lawson, Susan Goltsman, Daniel Iacofano Organizations: Japan/Taiwan Group; Community Design Centers, some private and public firms, nonprofit organizations Design advances Contributing useful theory and methods [23].

Designing for children is one of most critical issues which integrate with different aspects such as children's needs and safety considerations. The hypothesis of "city as a playground" by means of theories which mentioned above proposed solution for problematic points in contemporary children life style;

1- Children's domain segregation from the entity of city/City as a domain of children.
2- Children are citizen of city; therefore, design ideas have to fulfil by responding to their needs of play in immediate environment.
3- City wide as educational context for discovery and experiment.

"These confrontations take place when there is occasion to observe, compare, and express oneself, all the while doing something with others (having drink, waiting, to be served, waiting for the bus, sitting or strolling, these inner confrontations between myself and my perceptions of other are components in the construction and affirmation of our identity[55]"; therefore, the context of city and its unique spatial characteristic is important for children as further user of it to discover story and history of places and the way it use and transform over a time as a "set of instructions" for proper social behavior and gestures. The fact discussed above revealed the mastery of spatial space and its potential for creating themes of behavior; therefore, by the use of reclaiming design in city wide it is possible to change those pattern and theme of behavior and activities toward changing public point of view toward city and their children integration with it.

By discovering interrelation of spaces and its demands, ones can go beyond the intended use of place; therefore, in our contemporary urban everyday life while there is less opportunity for children to encounter with city elements and its everyday life's manuscript how they can become a person with the ability of discovering rituals and

cultures of its everyday life beyond of its intended use of things. While the domestication of different events through spontaneity of play and constant struggle of becoming adult started by children, they become capable of going beyond of use of each elements of city. Children domains and traditional playground cannot be isolated from children's immediate environment [55], by considering this point two primitive aim considered for design ideas of this study:

1- By reclaiming elements in city as a play unit enticing children to become familiar and closer to the adult everyday life in city which will be a part of their memory in their near future.
2- Encouraging children to construct their identity as a part of society as citizen of the city by encountering them to different age group and their especial rights to play.

CHAPTER6

DESIGN IDEAS BASED ON ASSUMING CITY AS A PLAY GROUND

According to the visual documentation in chapter four of this thesis study and result of questionnaires about children and adult's perception about Ankara, contemporary cities can be considered as a rich context for emersion of children's spontaneous play behavior in it. Those observations and results retrieved from data analysis lead thesis study to summarize and organize some of spontaneous play behaviors through five design ideas. Design ideas precisely are proposed for city center of Ankara according to the characteristics of some elements, and according to their use or misuse by inhabitants. Before focusing on proposed design ideas it is necessary to answer to the following question which can reveal nature of these ideas;

-If it is considered that children have spontaneous and free play activities in context of city why is it needed for reclaiming design of some elements in city as a play unit?

By considering the point that children are in constant experiment and re-experiment of the world through play practice, these experiences are considered as an initial part of childhood. They are unique and very personal and different from one child to another. One important way of educating children is encountering them with the experiences of other children and peers group. Therefore, observation of each children and the way they invent their play experiences through physical structure of city is crucial for discovering those experiments by other children. Therefore, by organizing those experiences through designed play elements, it is possible to transform city to the medium of play practice for all children based on children's play. In this way children have an access to other children's experiments by using those play units; moreover, reclaiming design of elements in city derived from children's original play behavior.

In general space support activities , “city as a playground”, traditional playground, adventure playground and all spatial settings contain and demand of collection of behavior, action, postures, gestures of users ; therefore, one of aim of design ideas is integrating children with these variety of stimuli and demands in city. Another aim of design ideas of this study is putting value on already existing elements of city because public spaces of the city have the quality to use them as an occasion and it is considered that they are not important as affirmative construction for inhabitant’s identity. The idea of “city as a playground” through reclaimed design of elements of city not only makes immediate environment as a context of creativity and joy for play activity but also makes city as a context of confrontation, closeness, experiencing complicity of membership and give opportunity to the individual for active and free self-expression.

The reclaiming design ideas of city elements as a play unit by hypothesis of “city as a playground” are listed below:

1- Safety consideration; although adult supervision over children’s play practice through some sources is considered as a fact of restricting free play behavior by designing play unit in public through city wide considering needs of special target group we use potential of adult supervision as a one factor for safety considerations. One aim of these units is enhancing public interaction through joyful activity with children; therefore, using interaction of adult with children while they have supervision over their children play practice considered as primitive step of safety consideration of this design.

2- Design ideas by Assuming “City as a Playground”, are formed according to the physical, psychological and cognitive ability of children which are generally related to developmental level of integration of certain target group (preschool children) with their environment. According to the concept of user centered design pointed by Donald Norman in 1980s the usability of product with recognizing interest and needs of user is one of crucial point in design [19]. In another words the product should be usable and understandable by the user. Therefore, if we consider spatial space as a product for public, it can be revealed

3- that responding to children's need through these spatial space were lost in contemporary city and isolated children's need through children's domain; therefore, by reclaimed design idea of some elements in city it is possible to response the needs of certain target groups who certainly belong to the entity of public.

Five design ideas of this study are proposed while some visual documentations were collected in KIZILAY; contemporary city center of Ankara in Turkey;

1- The first one is; reclaiming design of some leftover pedestrian bridges in city center of Ankara by installing Plexiglas walls; 'maze' or 'labyrinth' for offering children spontaneous play practice in different height of city with the aim of nurturing their perception by city scene. It means integrating them with different height scale bodily and visually; moreover, teaching them the importance of these elements in city by their indirect integration through play practice while they are choosing to pass from safe path over the street. In other words, aim of this idea is boosting culture of using pedestrian bridges among public, especially children. This labyrinth play unit ideas is proper for children between ages 3 to 6, and it helps to develop their "Motor Skills", because from age three children can jump and run smoothly and it can develop their "Cognitive Ability" and boost their understanding about time and spatial space and they can recognize some social interactions in their imitate play while they try to pass over labyrinth pedestrian bridges with their caregiver [15]. Therefore, layers of labyrinth on top of pedestrian bridges with hide and seek quality, and day light stimuli, changeable character of day light and shadows make pedestrian bridges adventurous for preschool children while they are passing through its wall with their parents.

   This idea is proposed because observation from city center of Ankara revealed that these pedestrian bridges in that area approximately lost their defined functionality as a safe path for people to pass across the street. It seems in that area citizen prefer to pass through street directly, and one reason for this behavior can be location of their construction, because they are constructed in

narrow streets in city center, which are heavy loaded by public transportation. Therefore, rush is slow enough for people to feel safe to pass through street instead of using pedestrian bridges. It seems this way which are found out by public everyday life practices in city center is a time saving solution and effective short cut. The result of this behavior is some leftover pedestrian bridges in city center which rarely are used by people; moreover, their structure and their scale are huge in upper height from the ground. Therefore, the idea of using pedestrian- bridges as a play unit will vivify and boost its functionality. Therefore, it is predicted that their design can be reclaimed for new function and in a way to use them as an educational tool for practicing traffic rules among children, besides other benefits which are mentioned above.

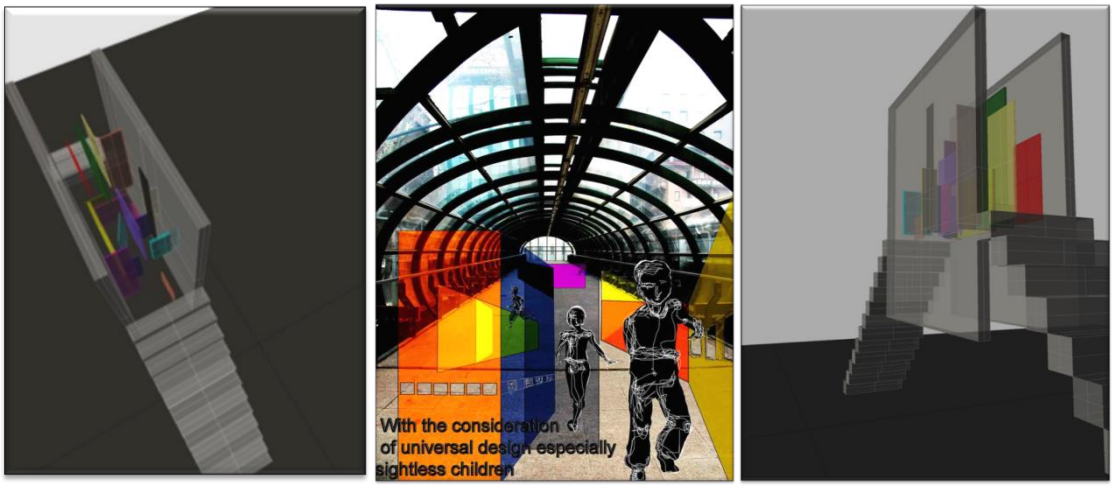

Figure 16 Visual example of Maze wall for reclaiming design of Pedestrian bridges in City Center of Ankara-Turkey (KIZILAY) Image made by author

Figure 17 Visual example of Maze wall for reclaiming design of City Center of Ankara-Turkey (KIZILAY) Image made by Ayşe Ece Onur

2- The second Idea is installing map of city as a play unit in bus station or as a façade of window shops of fast foods shop in city center. By this reclaiming design unit children can play while they are waiting for next coming bus or while they are waiting for their parents in a long queue of fast-food shop. They can navigate city by touching small characters on screen and navigate virtual roads in city and matching different elements in large screen map. In other words, they can discover different real area and location as well as information about buildings, institutions, shops and urban elements in that certain neighborhood by a symbolic and simple way of reading map. These play unit ideas composed with the aim of giving knowledge of reading map to children while they become integrated with first-hand information about the real space around them and with their location which at the same time they bodily emerged in. This element directly has influence on their cognitive ability to understand space and the relation of real space and location and the symbolic way of their representation through map.

Figure 18 Visual example of ‘Playful Map Panel’ on bus station for reclaiming design of City Center of Ankara-Turkey (KIZILAY) Image made by Ayşe Ece Onur

3- Third idea was proposed in this study as a kind of consideration to the social enterprise activity which is done and started before in Ankara. In different neighborhoods in Ankara people are collecting small bottle caps in plastic bottle waters which were installed from trees or fences with plastic strings. Although, this social behavior have sublime aim of charity and follows environmental friendly goals, it seems this plastic form disturb scenery of city wide, and considered as visual distraction which have certain influence on psyche of inhabitants. Design ideas proposed with the aim of organizing them in a form of container which is a play unit. In other words, when public and especially children throw those plastic bottle caps inside the container they can have momentary play experiences. Moreover children entice to become more involve with current events of their city for recycling bottle caps. This play unit consist of gears in different size, while children throw their plastic bottle caps inside the

4- box and spin up the handle they can see how groups of gear's integration works with each other to lead plastic bottle water at the bottom of the transparent box of container. Actually children by using and spinning up different handle can lead their bottle caps from different way to the bottom of this play unit. The idea of this play unit composed according to the "motor skills" of children between age three to six and their cognitive ability for finding ways and gears function as well as recognizing form and gears movement. Moreover, while children try this play unit in bus station they can boost their communicative ability with other children and other adults.

Figure 19 Visual example of 'Gear Palyful Panel' in busstation for reclaiming design of bus station in City Center of Ankara-Turkey (KIZILAY) Image made by Ayşe Ece Onur

5- The fourth idea is a safe playful path consists of rail which can be installed on lengthy wall, fence or façade that will be adjacent and stick on lengthy wall in a sidewalk. There will be some mobile elements on this rail path like small trains or movable vehicles or characters, which children can carry them through the rail as long as they keep going beside that wall. This design idea is proposed as an idea to educate both children's and their caregivers that the safe area of sidewalk is the area which is far from streets. This play unit keeps children in safe side of

6- side-walk while they are roaming city wide. Moreover, by this idea it is easy to enhance the visual richness of built environment by mobile decorative elements while responding to children's need of play in city, while they are involving with the certain shape and material of elements in urban design. In addition, they become integrated with the shape, texture and color of certain building materials in that neighborhood by integrating to play activity. This play unit integrates on improving their "motor skill 'and their "cognitive ability" for realizing form, color, texture, movement and the influence of day light and its changes on materials. Although, some other environmental stimuli like; sounds and noises of that location, weather condition, day light conditions, people who walking around that area and other spontaneous events are considered as stimuli integrated in this play unit to enhance children's integration with built environment.

Figure 20 Visual example of 'Safe Playful Path' for installing on lengthy wall of pavement in City Center of Ankara-Turkey (KIZILAY) Image made by Ayşe Ece Onur

Figure 21 Visual example of ‘Safe Playful Path’ for installing on lengthy wall of pavement in City Center of Ankara-Turkey (KIZILAY) Image made by Ayşe Ece Onur

7- The fifth idea is infinity mirror wall which will be constructed with thin Plexiglas box and installing LED lamp around narrow surface’s sides and will be covered by mirror from inside. With the help of lighting system and mirror it is possible to provide illusion of depth. There will be some metaphor hole inside the construction, which give illusion of depth to the viewer, so the narrow hole will seem like a lengthy tunnel. This wall can be constructed on bus station. While children are waiting for the bus, they can try the magic of these illusive holes and examine their spatial perception through play experience with the infinity wall. By passing through different empty hole they can experience contradictory feelings which construction provides for them. With the illusion were made by LED lamp and mirror children can experience meaning of depth and encounter with inconsistency of space by their visual perception and their “Motor kills” experiment, and at the end this wall leads them to the understanding of space related to the certain location in city. This play unit in bus station can provide momentary joy as well as glory night for ending ordinary

8- day of chewed-up public who are waiting for bus. It is predicted this wall can break monotonous rhythm of daily routine flow while voice of happiness and children's joy stowing atmosphere.

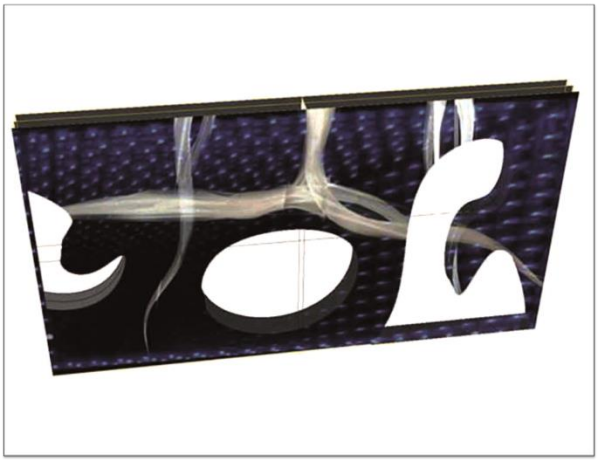

Figure 22 Visual example of 'Infinity Mirror Wall' for installing on bus station in City Center of Ankara-Turkey (KIZILAY) Image made by Author

To sum up, summary of children development in early childhood which are considered by those five design ideas are emphasized here precisely. In spite of children's Motor Skill development will flourish by these design ideas, by proposing them, "Cognitive" importance of preschool target group put under considerations as well as their "Communicative ability";

1-Motor Skill developments:

Age 3: stand on one foot, jump, run smoothly, and climb stars using alternating feet [15], which are considered in Maze wall design on pedestrian bridges, gear box on bus stations, infinity mirror wall on bus station and ideas of installing rail on lengthy wall, and map of the city on window shop.

Age 4: ride tricycles well, climb on a jungle gym, and throw a ball overhead [15], considered in gear box in bus station when children try different gear's handle in different height.

Age5: have better balance and can skip smoothly [15].

2-Cognitive importance of this target group:

-By use of non-verbal mental symbols which followed by language, children in this age develops ability to transcend spaces and time.

Symbolic play appears, consisting of pretend or imaginative play with toys or dramatizing roles and stories in which toys and roles symbolize real objects and real persons. This stage corresponds with Piaget's pre-operational stage and children are normally egocentric, relating everything to them. This point specially considered in design idea of rail and lengthy wall in fourth point.

- Children are animistic and believe that all events can be explained by the action of some humanlike agency or force that wills things to happen for its own purposes (magic always works).
- They also develop moral realism - the belief in imminent justice and the inevitability of punishment. Guilt is determined by amount of damage and not the intent or motivation.
- They are unable to see simultaneous positive and negative aspects of the same person or event (splitting). Parents need to set a good, loving, fair example to their children.
- Children also exhibit phenomenalistic causality where reasoning is transductive (attributing causality to juxtaposition in time or space). All ideas by integrating children with city matters as a real domain for both adult and children will provide these qualities related to time and space.
- Up to one-fifth of 3 to 6 year olds have an imaginary companion [15].

3- Communicative ability:

Vocabulary develops at a rate of about 50 new words per day until the age of 6, [15]. Therefore, spending time with parents and other adults and children through momentary play which is providing by these ideas can enhance this ability to develop their vocabulary domain too.

In conclusion, In spite of the fact that physical environment can enhance children’s experimental experiences and as a result their cognitive ability, the social environment help children to develop certain skills. In this regard the hypothesis of “city as a playground” encounters children with variety of social interaction; therefore, children in city will be encounter with different social experiences which is possible to occur between different persons, and among different ages group. This aspect by itself can emphasize the importance of city as a rich context for social interaction, while one of

general problem of children's domain is inefficiency of their domain in variety of social interactions. In children's domain, children become separated from wider social group. In other words, in children's domain and childcare centers children have interaction with their same age group of children or few adults, but for educating children about content of socialization which is considered as an evolutionary adaptive behavior it is necessary to encounter them with entire society; therefore, it is necessary to enhance city elements as a child friendly environment to boost this social interaction.

According to Frost 2008, social development of children, 3-6 age intervals is effected by the interaction relationship that they have with their parents and their sibling and the quality of social competence is shaped according to these interactions. The most important social characteristics which will shape in preschool era of child hood are; Self-concept, Self-esteem, Self-regulation of emotions, Empathy [58]. Hypothesis of "city as a playground" with proposed reclaiming design ideas opens city as a social context in which children and parents can spend time efficiently with each other and have an educational interaction through play practice while they navigate city. As mentioned in former chapters contemporary life style in cities separated family members from each other while chopped their space and time; although, parents take children to play grounds they do not have efficient and sufficient interaction with their children and it was seen through observation that most of them seat on the edges or benches and watch-out children's activities. Therefore, either children are playing in their home with cyber game or they have play activity in kindergartens or play grounds their interaction with other adult and their parents is less than era of pre-industrial cities which children were not detached from adult environment; therefore, general aim of design ideas is providing a communicative opportunity for both adult and children through porosity and richness of city.

CHAPTER 7

CONCLUSION

From industrial revolution till contemporary era, culture of play was in constant transformation toward sensitizing and integrating childhood. Gradually, childhood was eliminated from content of built environment and cities. It became limited to bounded safe children's domain like kindergarten and ordinary playground; in other words, it caused children's domain segregation from entire porosity of everyday life flow in the city, although before industrial era the difference between what is considered as a 'childhood' and adulthood and their living environment had been a blurred content in pre-industrial living environment and its social context.

Children's domain segregation from entity of city eliminates sense of attachment toward built environment; as a result, children became alien toward city and its social life. Moreover, city's various unlimited stimuli remained unknown for them, while contemporary living situation in cities become more complicated and needs high social skills and deep cognition to cope with.

It is important that local authorities avoid the temptation to bracket off children's play into one or more forms of provision, or to represent play simply through a parks or playgrounds service-based approach. Children are sophisticated judges of their surroundings and are naturally curious about the places they visit and use. Buildings that are primarily used by children can and should be designed in a way that enables them to have a variety of spatial experiences. The streets, canals and riversides, parks and open spaces – as distinct from designated playgrounds – are places where children must be seen, heard and given opportunities to play.

Through the observations done, to record visual documentation about spontaneous children's play behavior in city center of Ankara-Turkey and Tehran-Iran it is revealed that, although children's tendency to play seems same in everywhere, each element in the city can produce and provide unique play behavior while a children encounter with it in certain time and space in certain city. Therefore, observations lead toward flourishing the idea of assuming "City as a Playground".

"City as a Playground" is a call to the right of children for having spontaneous play experience in the city and by this way, bringing back children to livelihood scene of everyday life of city and integrating children with city through play practices and proposes each city as a unique rich context for joy, education, and tool for enhancing creativity.

For enhancing built environment some reclaiming "design ideas" play units in city based on children's spontaneous play behavior were proposed in chapter six to fulfil the needs of public for their integration with city through play practice, and eliminating children's domain segregation from public space, and considering children as infinite citizen of their city.

This study will open explorative criteria in research on possibility of every elements in urban design as a play unit. Moreover, the aim of integrating public especially children to the social and cultural context of city with considering impacts of a certain locality through play practice can be put under further considerations and further research. In addition, this study will be applicable for Architects, city planners, and designers to consider children as a part of society member and pay attention to probability of their existence and needs in every spaces.

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APPENDICES A

REPORT OF DATA ANALYSIS

Data analysis of children perception about Ankara as a play space

This analysis is in the category of non-parametric statistic because of nature of survey, which is including small and random sample with independent observations. Data was measured in nominal (categorical) and (ordinal) scale.

Questionnaire prepared for children included 13 questions. Population of this survey were selected randomly. The Cross tabulation analysis and Chi-square test in SPSS-20 was used for categorical data analysis and by information was given below characteristic of survey and result was described in detail:

Table1. Gender frequency in children's sample/ Sex

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	1 BOY	46	50.5	50.5	50.5
	2 GIRL	45	49.5	49.5	100.0
	Total	91	100.0	100.0	

The total frequency of this sample is 91 which is 46 frequency or 50.5 % of sample constitute of boy gender and 45 or 49.5 % related to the girl gender. According to this data gender division is approximately equal.

In questionnaire type 1; attached in (appendices C) pages of this thesis, was asked children do they like to play with children whom they do not know them?

The aim from asking this question was to estimate tendency of children to encounter with stranger in built environment, because one of the aims of applying play unit through reclaiming design of some elements of urban, is boosting children's social interaction which is removed from culture of contemporary play. Moreover, for evaluating respondent answers, influence of gender differentiation was put under consideration.

-Is there an association between gender of children and tendency of playing with children whom they don't know them?

Table 2. Case Processing Summary in children's sample

	Cases					
	Valid		Missing		Total	
	N	Percent	N	Percent	N	Percent
Sex * PWIC Playing with incognito children	91	100.0%	0	0.0%	91	100.0%

Table2, revealed that from population of 91 individuals all responsed to this question.

Table 3.Sex * PWIC Playing with children who they don't know them, Crosstabulation

			PWIC Playing with stranger children		Total
			1 YES	2 NO	
Sex	1 BOY	Count	26	20	46
		% within Sex	56.5%	43.5%	100.0%
		% within PWIC Playing with stranger children	44.8%	60.6%	50.5%
		% of Total	28.6%	22.0%	50.5%
	2 GIRL	Count	32	13	45
		% within Sex	71.1%	28.9%	100.0%

	% within PWIC Playing with stranger children	55.2%	39.4%	49.5%
	% of Total	35.2%	14.3%	49.5%
Total	Count	58	33	91
	% within Sex	63.7%	36.3%	100.0%
	% within PWIC Playing with stranger children	100.0%	100.0%	100.0%
	% of Total	63.7%	36.3%	100.0%

The result of Sex * PWIC Playing with stranger children Crosstabulation analysis in table 3 revealed that; The value next to the % within Sex shows that 56.5% of boys preferred to play with children whom they do not know. For girls this percentage is 71.1, while 43.5% of boys and 28.9% of girls do not have tendency to play with stranger children. From total of sample 63.7% of children preferred for play with children whom they don't know. This result revealed that although outdoor street play which is rich context of encountering with stranger is vanishing from contemporary children's life style, still children have tendency to encounter with other children who they do not know.

Table 4. Chi-Square Tests

	Value	df	Asymp. Sig. (2-sided)	Exact Sig. (2-sided)	Exact Sig. (1-sided)
Pearson Chi-Square	2.095[a]	1	.148		
Continuity Correction[b]	1.511	1	.219		
Likelihood Ratio	2.107	1	.147		
Fisher's Exact Test				.192	.109
Linear-by-Linear Association	2.072	1	.150		
N of Valid Cases	91				

a. 0 cells (0.0%) have expected count less than 5. The minimum expected count is 16.32.

b. Computed only for a 2x2 table

The main value that we are interested in the out-put is the Pearson-chi-square value in table 4, which is presented in the Chi-Square Tests. In the table mentioned above the corrected value in Continuity Correction is 1.51, with an associated significance level of .219, which is in the column labelled Asymp. Sig. (2-sided). To be significant the Sig.value needs to be .05, in our survey the value of .219 is larger than the alpha value of.05, so we can conclude that our result is not significant this means that the proportion of boys who have tendency for playing with incognito children is not significantly different from the proportion of girls who prefer to play with incognito children.

Table 5. Symmetric Measures

		Value	Approx. Sig.
Nominal by Nominal	Phi	-.152	.148
	Cramer's V	.152	.148
N of Valid Cases		91	

a. Not assuming the null hypothesis.

b. Using the asymptotic standard error assuming the null hypothesis.

Phi coefficient value which is shown in the table5. symmetric measures is -.152, which is considered a small effect according to the effect using Cohen's (1988) criteria of .10 for small effect, .30 for medium effect and .50 for large effect.

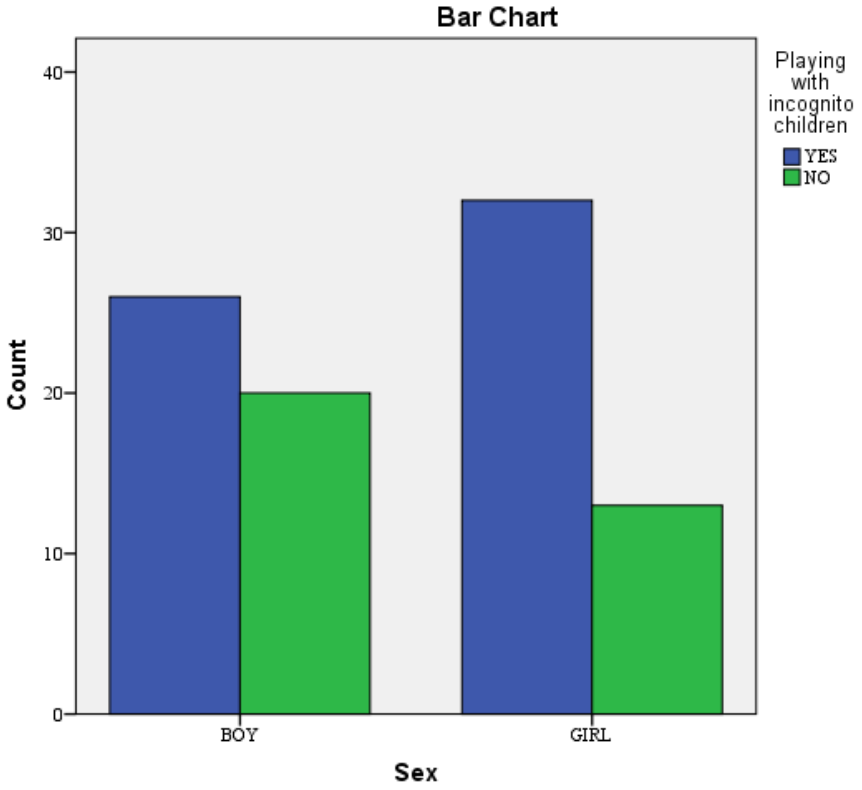

Figure 23 Bar Chart related to children's gender differentiation in playing with children whom they are not familiar with and see them for first time in city.

Table 6. Sex * EPFP Exciting place for play Crosstabulation, revealed that even

Table 6. Sex * EPFP Exciting place for play

			EPFP Exciting place for play					Total
			1 My own room	2 My home	3 G & R home	4 Streets and Parks	5 Shopping Center	
Sex	1 BOY	Count	6	8	4	22	6	46
		% within Sex	13.0%	17.4%	8.7%	47.8%	13.0%	100.0%
		% within EPFP Exciting place for play	50.0%	72.7%	57.1%	42.3%	66.7%	50.5%
		% of Total	6.6%	8.8%	4.4%	24.2%	6.6%	50.5%
	2 GIRL	Count	6	3	3	30	3	45
		% within Sex	13.3%	6.7%	6.7%	66.7%	6.7%	100.0%
		% within EPFP Exciting place for play	50.0%	27.3%	42.9%	57.7%	33.3%	49.5%
		% of Total	6.6%	3.3%	3.3%	33.0%	3.3%	49.5%
Total		Count	12	11	7	52	9	91
		% within Sex	13.2%	12.1%	7.7%	57.1%	9.9%	100.0%
		% within EPFP Exciting place for play	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%
		% of Total	13.2%	12.1%	7.7%	57.1%	9.9%	100.0%

universal culture of play coerced children to play in indoor space, but children's tendency

is playing in outdoor spaces like parks and streets. Among population of these sample girls with 66.7% respond that streets and park is among their interesting place for play. The total percentages of population from 5 defined categories reveled that children's interesting play spaces are in following sequence; Grandparents home, 7.7% < Shopping

center leisure space, 9.9% < Their own home, 12.1% < Their own room, 13.2% < Streets and Parks, 57.1% .

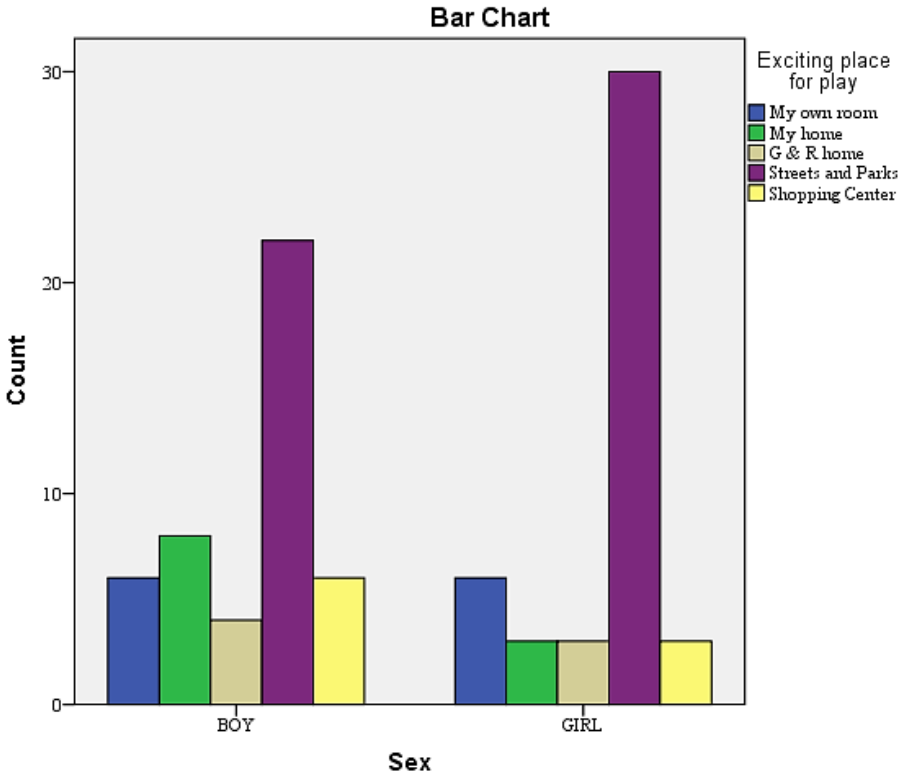

Figure 24 Children's gender differentiation and their preference about exciting place for play activity.

The bar chart above revealed that both gender boy and girl interested in playing in out-door and this preference among girl gender is more than boy gender.

Another question which was asked children to estimate children tendency of going through city wide while they are accompanying their parent and result of analysis of that question was;

-Do they like to accompany their parent while their parents going in city wide? This question was asked because one of aim of design ideas in this thesis study was boosting interactive play time span between parents and children while they are roaming in city.
-Is there an association between gender and tendency for accompanying parents while they are going in city wide?

Table 7. Case Processing Summary

	Cases					
	Valid		Missing		Total	
	N	Percent	N	Percent	N	Percent
Sex * Accompany Accompanying their parents while they are going in city wide	90	98.9%	1	1.1%	91	100.0%

Table7, revealed that among 91 individual of sample 90 individual or 98.9% of population answered to this question.

Table 8.Sex * Accompany Accompanying their parents while they are going in city wide Crosstabulation

			Accompany Accompanying their parents while they are going in city wide		Total
			1 YES	2 NO	
Sex	1 BOY	Count	36	9	45
		% within Sex	80.0%	20.0%	100.0%

		% within Accompany Accompanying their parents while they are going in city wide	48.6%	56.2%	50.0%
		% of Total	40.0%	10.0%	50.0%
	2 GIRL	Count	38	7	45
		% within Sex	84.4%	15.6%	100.0%
		% within Accompany Accompanying their parents while they are going in city wide	51.4%	43.8%	50.0%
		% of Total	42.2%	7.8%	50.0%
Total		Count	74	16	90
		% within Sex	82.2%	17.8%	100.0%
		% within Accompany Accompanying their parents while they are going in city wide	100.0%	100.0%	100.0%
		% of Total	82.2%	17.8%	100.0%

To find what percentage of each sex are being interested to accompany their parents while they are going to city wide it is necessary to look at the summery information provided in table 8 labeled Sex * Accompany Accompanying their parents while they are going in city wide Crosstabulation. The value next to the % within Sex shows that 80.0% of boys preferred to accompany their parents and for girls this percentage is 84.4%, while 20.0% of boys and 15.6% of girls do not have tendency to accompany their parents while they are going in city wide. From total of sample 82.2% of children preferred to accompany their parents while they are going to city wide.

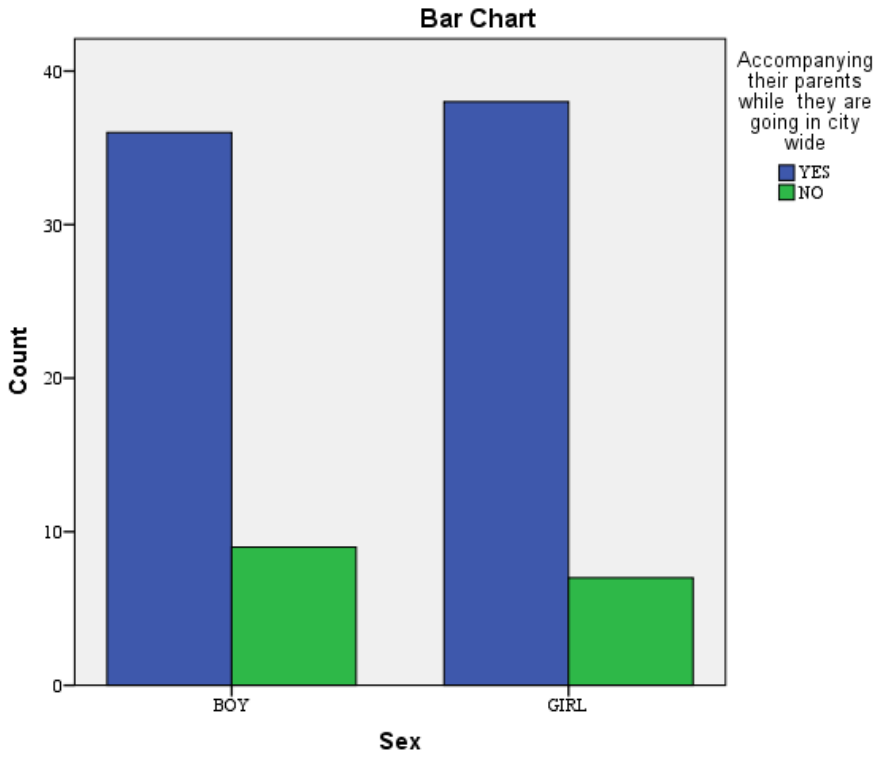

Figure 25 Bar chart of tendency of children for accompanying their parent while they are going in city wide among two genders.

Table 9. Chi-Square Tests

	Value	df	Asymp. Sig. (2-sided)	Exact Sig. (2-sided)	Exact Sig. (1-sided)
Pearson Chi-Square	.304[a]	1	.581		
Continuity Correction[b]	.076	1	.783		
Likelihood Ratio	.305	1	.581		
Fisher's Exact Test				.784	.392
Linear-by-Linear Association	.301	1	.583		
N of Valid Cases	90				

a. 0 cells (0.0%) have expected count less than 5. The minimum expected count is 8.00.

b. Computed only for a 2x2 table

The main value that we are interested in from the out-put is the Pearson-chi-square value, which is presented in the table9. Chi-Square Tests; the corrected value in Continuity Correction is .076, with an associated significance level of .783, which is in the column labelled Asymp. Sig. (2-sided). To be significant the Sig. value needs to be .05 or smaller, in our survey the value of .783 is larger than the alpha value of.05, so we can conclude that our result is not significant this means that the proportion of boys who wants to accompany their parents while they want to go through the city is not significant from girls with this tendency.

Table 10. Symmetric Measures

		Value	Approx. Sig.
Nominal by Nominal	Phi	-.058	.581
	Cramer's V	.058	.581
N of Valid Cases		90	

a. Not assuming the null hypothesis.

b. Using the asymptotic standard error assuming the null hypothesis.

Phi coefficient value which is shown in the table 10.symmetric measures is -.058, which is considered considerably small effect according to the effect using Cohen's (1988) criteria of .10 for small effect, .30 for medium effect and .50 for large effect.

A question about children's sense of attachment toward city was asked in questionnaire to estimate children perception about their city, because through previous analysis it can be understood that children preferred being in city wide.

_do they have sense of attachment toward the city?

_Is there an association between gender and sense of city attachment or feeling that city belongs to children?

Table 11. Sex * Attached Does city belonging to child Crosstabulation

			Attached Does city belonging to child		Total
			1 YES	2 NO	
Sex	1 BOY	Count	21	23	44
		% within Sex	47.7%	52.3%	100.0%
		% within Attached Does city belonging to child	60.0%	42.6%	49.4%
		% of Total	23.6%	25.8%	49.4%
	2 GIRL	Count	14	31	45
		% within Sex	31.1%	68.9%	100.0%
		% within Attached Does city belonging to child	40.0%	57.4%	50.6%
		% of Total	15.7%	34.8%	50.6%
Total		Count	35	54	89
		% within Sex	39.3%	60.7%	100.0%
		% within Attached Does city belonging to child	100.0%	100.0%	100.0%
		% of Total	39.3%	60.7%	100.0%

To find what percentage of each sex believe in that city belongs to children, it is necessary to look at the summery information provided in table 11.Sex * Attached Does city belonging to child Crosstabulation. The value next to the % within Sex shows that 47.7% of boys are believed that city belongs to children, for girls this percentage is 31.1%, while 52.3% of boys and 68.9% do not believe city is belong to children. From total of sample 39.3% of children feel sense of attachment toward city. From total population 60.7% of children do not have sense of attachment toward city.

Table 12. Chi-Square Tests

	Value	df	Asymp. Sig. (2-sided)	Exact Sig. (2-sided)	Exact Sig. (1-sided)
Pearson Chi-Square	2.574[a]	1	.109		

Continuity Correction[b]	1.925	1	.165		
Likelihood Ratio	2.588	1	.108		
Fisher's Exact Test				.132	.082
Linear-by-Linear Association	2.545	1	.111		
N of Valid Cases	89				

a. 0 cells (0.0%) have expected count less than 5. The minimum expected count is 17.30.

b. Computed only for a 2x2 table

The main value that we are interested in from the out-put is the table 12. Pearson-chi-square value, the corrected value in Continuity Correction is 1.925, with an associated significance level of .165, which is in the column labelled Asymp. Sig. (2-sided). To be significant the Sig. value needs to be .05 or smaller, in our survey the value of.165 is larger than the alpha value of.05, so we can conclude that our result is not significant this means that the proportion of boys who believe in city belongs to children is not significantly different the from proportion of girls who believe in city belongs to children. There appears to be no association between children's sense of attachment and their gender.

Table 13. Symmetric Measures

		Value	Approx. Sig.
Nominal by Nominal	Phi	.170	.109
	Cramer's V	.170	.109
N of Valid Cases		89	

a. Not assuming the null hypothesis.

b. Using the asymptotic standard error assuming the null hypothesis.

Phi coefficient value which shown in the table symmetric measures is .170, which is considered small effect according to the effect using Cohen's (1988) criteria of .10 for small effect, .30 for medium effect and .50 for large effect.

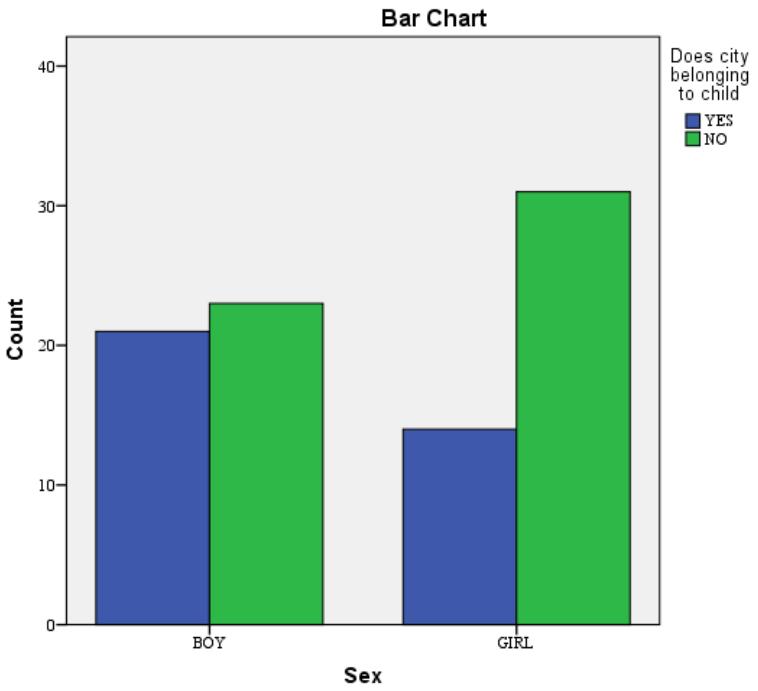

Figure 26 Bar Chart of children's gender differentiation and its influence on their sense of attachment toward city.

Another question was asked children to estimate children's outdoor play activity; 'are they playing in street?', and result of analysis described below; moreover, the question; 'is there any association between gender and tendency of playing in street?' was put under consideration.

Table 14. Sex * Streetplay Playing in street Crosstabulation

			Streetplay Playing in street		Total
			1 YES	2 NO	
Sex	1 BOY	Count	32	14	46
		% within Sex	69.6%	30.4%	100.0%
		% within Streetplay Playing in street	54.2%	45.2%	51.1%

		% of Total	35.6%	15.6%	51.1%
	2 GIRL	Count	27	17	44
		% within Sex	61.4%	38.6%	100.0%
		% within Streetplay Playing in street	45.8%	54.8%	48.9%
		% of Total	30.0%	18.9%	48.9%
Total		Count	59	31	90
		% within Sex	65.6%	34.4%	100.0%
		% within Streetplay Playing in street	100.0%	100.0%	100.0%
		% of Total	65.6%	34.4%	100.0%

To find what percentage of each sex play in street, it is necessary to look at the summery information provided in table 14. Sex * Streetplay Playing in street Crosstabulation. The value next to the % within Sex shows that 69.6% of boys are still playing in street and for girl this percentage is 61.4%, while 30.4% of boys and 38.6% are not playing in streets. From total of sample 65.6% of children still use streets as a play spaces.

Table 15. Chi-Square Tests

	Value	df	Asymp. Sig. (2-sided)	Exact Sig. (2-sided)	Exact Sig. (1-sided)
Pearson Chi-Square	.670[a]	1	.413		
Continuity Correction[b]	.356	1	.551		
Likelihood Ratio	.671	1	.413		
Fisher's Exact Test				.507	.275
Linear-by-Linear Association	.662	1	.416		
N of Valid Cases	90				

a. 0 cells (0.0%) have expected count less than 5. The minimum expected count is 15.16.

b. Computed only for a 2x2 table

The main value that we are interested in from the out-put is the Pearson-chi-square value in table 15, corrected value in Continuity Correction is .356, with an associated significance level of .551, which is in the column labelled Asymp. Sig. (2-sided). To be significant the Sig. value needs to be .05 or smaller, in this survey the value of .356 is larger than the alpha value of.05, so we can conclude that our result is not significant this means that the proportion of boys who play in streets is not significantly different from the proportion of girls who play in streets. There appears to be no association between children's tendency to play in street and their gender.

Table 16. Symmetric Measures

		Value	Approx. Sig.
Nominal by Nominal	Phi	.086	.413
	Cramer's V	.086	.413
N of Valid Cases		90	

a. Not assuming the null hypothesis.

b. Using the asymptotic standard error assuming the null hypothesis.

Phi coefficient value which shown in the table symmetric measures is .086, which is considered considerably small effect according to the effect using Cohen's (1988) criteria of .10 for small effect, .30 for medium effect and .50 for large effect.

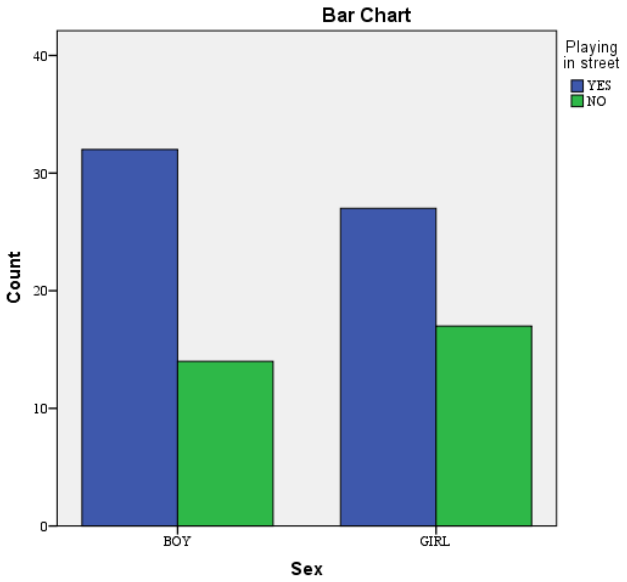

Figure 27 Bar Chart of children's gender differentiation and its influence of street play.

Bar chart above revealed that 69.6% of boys and 61.4% of girls are playing in street in Ankara from sample with 90 populations.

The other question which was important in this survey is estimating any association between gender and regularly play with children in neighborhood?

Table 17. Case Processing Summary

	Cases					
	Valid		Missing		Total	
	N	Percent	N	Percent	N	Percent
Sex * NRplay Play regularly with child in neighborhood	89	97.8%	2	2.2%	91	100.0%

Information in table 17 is revealed that 89 children's response to the question of; 'do they regularly play with children in their neighborhood?' Table above shows that 97.8% of children were responded to this question.

Table18. Sex * NRplay Play regularly with child in neighborhood Crosstabulation

			NRplay Play regularly with child in neighborhood		Total
			1 YES	2 NO	
Sex	1 BOY	Count	22	23	45
		% within Sex	48.9%	51.1%	100.0%
		% within NRplay Play regularly with child in neighborhood	68.8%	40.4%	50.6%
		% of Total	24.7%	25.8%	50.6%
	2 GIRL	Count	10	34	44
		% within Sex	22.7%	77.3%	100.0%
		% within NRplay Play regularly with child in neighborhood	31.2%	59.6%	49.4%
		% of Total	11.2%	38.2%	49.4%
Total		Count	32	57	89
		% within Sex	36.0%	64.0%	100.0%
		% within NRplay Play regularly with child in neighborhood	100.0%	100.0%	100.0%
		% of Total	36.0%	64.0%	100.0%

Another way of estimating children tendency to play in street were asked through the question do they regularly play with children in their neighborhood, to find what percentage of each sex play in street, it is necessary to look at the summery information provided in table 18.Sex * NRplay / Play regularly with child in neighborhood Crosstabulation. The value next to the % within Sex shows that 48.9% of boys are regularly play with children in their neighborhood and for girl this percentage is 22.7%, while 51.1% of boys and 77.3% of girls are not regularly playing with children in their neighborhood. From total of sample just 36.0% of children regularly play with children

in their neighborhood, while 64% of children are not regularly play with children in their neighborhood.

Table19. Chi-Square Tests

	Value	df	Asymp. Sig. (2-sided)	Exact Sig. (2-sided)	Exact Sig. (1-sided)
Pearson Chi-Square	6.612[a]	1	.010		
Continuity Correction[b]	5.525	1	.019		
Likelihood Ratio	6.737	1	.009		
Fisher's Exact Test				.015	.009
Linear-by-Linear Association	6.538	1	.011		
N of Valid Cases	89				

a. 0 cells (0.0%) have expected count less than 5. The minimum expected count is 15.82.

b. Computed only for a 2x2 table

The main value that we are interested in from the out-put is the Pearson-chi-square value, is presented In the table 19, and the corrected value in Continuity Correction is 5.525, with an associated significance level of .019, which is in the column labelled Asymp. Sig. (2-sided). To be significant the Sig. value needs to be .05 or smaller, in this survey the value of .019 is smaller than the alpha value of.05, so we can conclude that our result is significant this means that the proportion of boys who play regularly with children of neighborhood significantly different the from proportion of girls who Play regularly with child in neighborhood. There appears to be association between children's tendency to play regularly with children in their neighborhood and their gender.

Table 20. Symmetric Measures

		Value	Approx. Sig.
Nominal by Nominal	Phi	.273	.010
	Cramer's V	.273	.010

N of Valid Cases	89

a. Not assuming the null hypothesis.
b. Using the asymptotic standard error assuming the null hypothesis.

Phi coefficient value which shown in the table 20. symmetric measures is .273, which is considered as nearly medium effect according to the effect using Cohen's (1988) criteria of .10 for small effect, .30 for medium effect and .50 for large effect.

Questionnaire in this survey contains some questions to understand which elements in urban design are more interesting for children. Interesting City Elements Crosstabulation table below (Table 21) shows that between 5 variables of streets, pedestrian bridges, sidewalk, bus stations, and window shop; 48.9% of population chosen street as more exciting elements in city and from this total percentage 56.8% of boy and 40.9% chosen streets as interesting elements. The second elements after street was related to 5^{th} variable which was window shop that 27.3% population of sample chosen this variable and through two different gender 15.9% of boys and 70.8% of girl gender chosen this element in city.

Interesting city elements for all population of sample:

Bus station 5.7 % < Pedestrian Bridge 6.8% < Sidewalk 11.4% < Window shop 27.3% < Streets 48.9%

Interesting city elements for boy gender:

Bus station = Pedestrian bridge 6.8% < Sidewalk 13.6 < window shop 15.9% <Streets 56.8%

Interesting city elements for girl gender:

Bus station 4.5% < Pedestrian bridge 6.8% < sidewalk 9.1% <window shop 38.6 %< Streets 40.9%

Table 21. Sex * ICS Interesting City Elements Crosstabulation

			ICS Interesting City Elements					Total
			1 Streets	2 Pedestrian Bridge	3 Sidewalk	4 Bus stations	5 Window shop	
Sex	1 BOY	Count	25	3	6	3	7	44
		% within Sex	56.8%	6.8%	13.6%	6.8%	15.9%	100.0%
		% within ICS Interesting City Elements	58.1%	50.0%	60.0%	60.0%	29.2%	50.0%
		% of Total	28.4%	3.4%	6.8%	3.4%	8.0%	50.0%
	2 GIRL	Count	18	3	4	2	17	44
		% within Sex	40.9%	6.8%	9.1%	4.5%	38.6%	100.0%
		% within ICS Interesting City Elements	41.9%	50.0%	40.0%	40.0%	70.8%	50.0%
		% of Total	20.5%	3.4%	4.5%	2.3%	19.3%	50.0%
Total		Count	43	6	10	5	24	88
		% within Sex	48.9%	6.8%	11.4%	5.7%	27.3%	100.0%
		% within ICS Interesting City Elements	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%
		% of Total	48.9%	6.8%	11.4%	5.7%	27.3%	100.0%

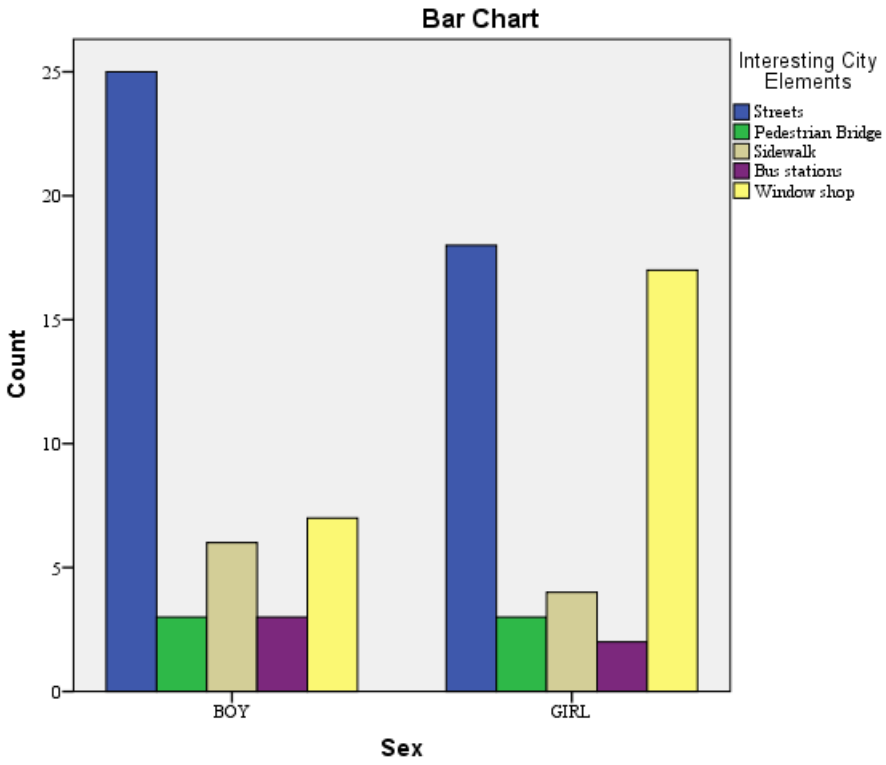

Figure 28 Bar Chart of children's gender differentiation and its influence on children's preference of city elements.

Table below shows how many of children among 91 population of sample chose their interesting city elements among different age groups. 88 children answered this question which is 96.7% of total population.

Table 22. Case Processing Summary

	Cases					
	Valid		Missing		Total	
	N	Percent	N	Percent	N	Percent
Age (Age categories) * ICS Interesting City Structure	88	96.7%	3	3.3%	91	100.0%

Table 23. Age (Age categories)* ICS Interesting City Elements Crosstabulation

Count

		ICS Interesting City Elements					Total
		1 Streets	2 Pedestrian Bridge	3 Sidewalk	4 Bus stations	5 Window shop	
Age (Age categories)	1 between 2-3 years	1	0	2	0	0	3
	2 between 3-5 years	4	2	3	2	2	13
	3 between 6-8 years	7	1	2	0	2	12
	4 between 9-11 years	12	2	1	1	11	27
	5 between 12-14 years	7	1	1	1	4	14
	6 between 15-17 years	12	0	1	1	5	19
Total		43	6	10	5	24	88

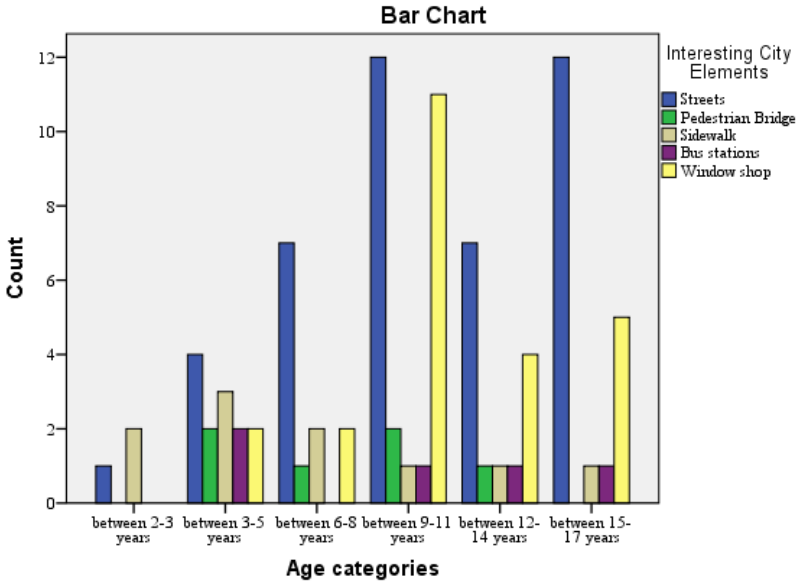

Figure 29 Bar chart of interesting city elements between different age categories.

According to the result of analysis in table 22, 23 and barchart related to age category, it is obvious that pedestrian bridges and bus station are less interesting city elements among population of this survey. One reason predicted for this result is that children become bored while they are waiting in bus station; therefore the analysis below from the question which prepared in this regard can reveal why bus station is not interesting city elements for children for further reclaiming design of its structure.

Table 24. Sex * BWB Becoming Bored for waiting in bus station Crosstabulation

			BWB Becoming Bored for waiting in bus station		Total
			1 YES	2 NO	
Sex	1 BOY	Count	32	12	44
		% within Sex	72.7%	27.3%	100.0%
		% within BWB Becoming Bored for waiting in bus station	47.1%	57.1%	49.4%
		% of Total	36.0%	13.5%	49.4%
	2 GIRL	Count	36	9	45
		% within Sex	80.0%	20.0%	100.0%
		% within BWB Becoming Bored for waiting in bus station	52.9%	42.9%	50.6%
		% of Total	40.4%	10.1%	50.6%
Total		Count	68	21	89
		% within Sex	76.4%	23.6%	100.0%
		% within BWB Becoming Bored for waiting in bus station	100.0%	100.0%	100.0%
		% of Total	76.4%	23.6%	100.0%

To find what percentage of each sex boredom of waiting in bus station , it is necessary to look at the summery information provided in table 24.; Sex * BWB Becoming Bored for waiting in bus station Crosstabulation. The value next to the % within Sex shows

that72.7% of boys are become bored while they waiting for bus and for girl this percentage is 80.0%, while 27.3% of boys and 20.0% are not become bored while they are waiting in bus station. From total of sample 76.4% of children become bored while they are waiting for bus in bus station.

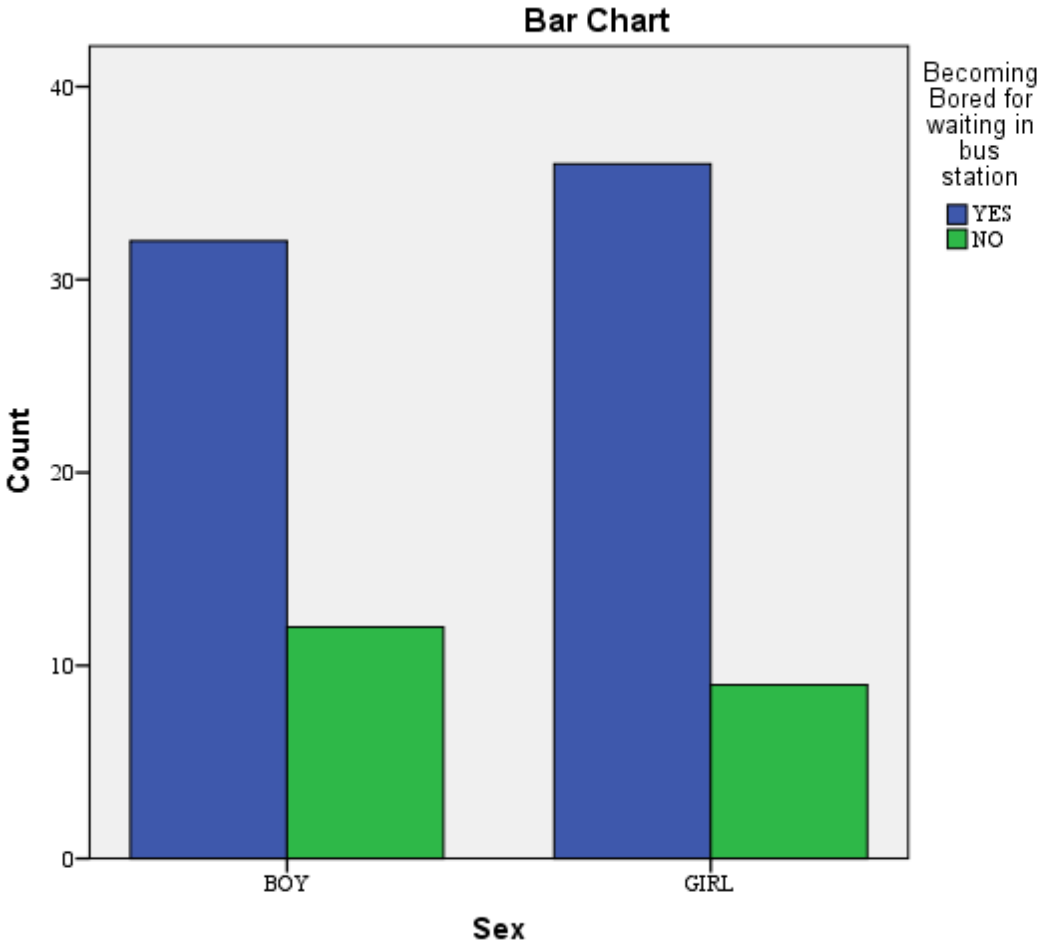

Figure 30 Bar Chart of influence of gender differentiation on becoming bored of waiting on bus station.

Bar chart above illustrates that 76.4% of population of the sample became bored while they are waiting in bus station, which is percentage of girls t positive response to this

question 80.0% which is more than of opposite gender with 72.7% with the same response.

Table 25. Chi-Square Tests

	Value	df	Asymp. Sig. (2-sided)	Exact Sig. (2-sided)	Exact Sig. (1-sided)
Pearson Chi-Square	.653[a]	1	.419		
Continuity Correction[b]	.312	1	.577		
Likelihood Ratio	.654	1	.419		
Fisher's Exact Test				.462	.289
Linear-by-Linear Association	.645	1	.422		
N of Valid Cases	89				

a. 0 cells (0.0%) have expected count less than 5. The minimum expected count is 10.38.

b. Computed only for a 2x2 table

The main value that we are interested in from the out-put is the Pearson-chi-square value, which is presented in the table 25.Chi-Square Tests. In the table mentioned above the corrected value in Continuity Correction is.312, with an associated significance level of .577, which is in the column labelled Asymp. Sig. (2-sided). To be significant the Sig. value needs to be .05 or smaller, in this survey the value of .577 is larger than the alpha value of.05, so we can conclude that our result is not significant this means that the proportion of boys who become bored because waiting in bus station is not significantly different from the proportion of girls who become bored because of waiting in a place like bus station. There appears to be no association between children boredom while they are waiting in bus station and their gender.

Table 26. Symmetric Measures

		Value	Approx. Sig.
Nominal by Nominal	Phi	-.086	.419
	Cramer's V	.086	.419
N of Valid Cases		89	

a. Not assuming the null hypothesis.

b. Using the asymptotic standard error assuming the null hypothesis.

Phi coefficient value which shown in the table 26. symmetric measures is -.086, which is considered considerably small effect according to the effect using Cohen's (1988) criteria of .10 for small effect, .30 for medium effect and .50 for large effect.

For estimating necessitate of reclaiming design of bus station it is important to estimate children's tendency toward using bus as a public transportation, because if they are not interested in using bus for traveling though city wide there is no necessity for waiting bus in the bus station.

Table 27 entitled Sex * LBT Like bus for traveling in city wide Crosstabulation revealed that 65.6% total population of this study are prefer to use bus. According to the table below and following bar chart girl gender with 71.1% and boy gender 60.0% prefer bus as a public transportation.

Table 27. Sex * LBT Like bus for traveling in city wide Crosstabulation

			LBT Like bus for traveling in city wide		Total
			1 YES	2 NO	
Sex	1 BOY	Count	27	18	45
		% within Sex	60.0%	40.0%	100.0%
		% within LBT Like bus for traveling in city wide	45.8%	58.1%	50.0%
		% of Total	30.0%	20.0%	50.0%
	2 GIRL	Count	32	13	45
		% within Sex	71.1%	28.9%	100.0%
		% within LBT Like bus for traveling in city wide	54.2%	41.9%	50.0%

	% of Total	35.6%	14.4%	50.0%
	Count	59	31	90
	% within Sex	65.6%	34.4%	100.0%
Total	% within LBT Like bus for traveling in city wide	100.0%	100.0%	100.0%
	% of Total	65.6%	34.4%	100.0%

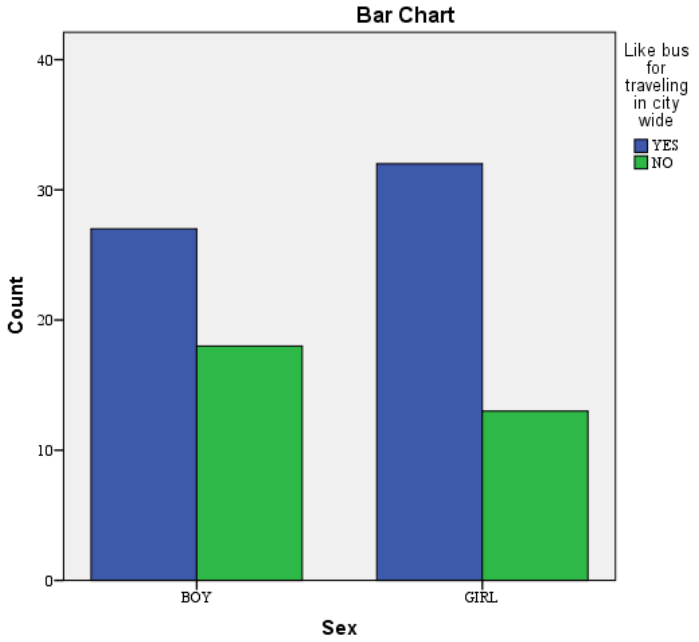

Figure 31 Bar Chart of gender differentiation and their tendency for traveling by bus

Table 28. Chi-Square Tests

	Value	df	Asymp. Sig. (2-sided)	Exact Sig. (2-sided)	Exact Sig. (1-sided)
Pearson Chi-Square	1.230[a]	1	.267		
Continuity Correction[b]	.787	1	.375		
Likelihood Ratio	1.234	1	.267		
Fisher's Exact Test				.375	.188
Linear-by-Linear Association	1.217	1	.270		

N of Valid Cases	90

a. 0 cells (0.0%) have expected count less than 5. The minimum expected count is 15.50.

b. Computed only for a 2x2 table

The main value that we are interested in from the out-put is the Pearson-chi-square value, which is presented in the Chi-Square Tests, in the table 28 mentioned above the corrected value in Continuity Correction is .787, with an associated significance level of .375, which is in the column labelled Asymp. Sig. (2-sided). To be significant the Sig. value needs to be .05 or smaller, in this survey the value of .375 is larger than the alpha value of.05, so we can conclude that our result is not significant this means that the proportion of boys who prefer to traveling through the streets by bus is not significantly different from the proportion of girls with the same desire. There appears to be no association between children preference of using bus as transportation vehicle and their gender.

Table 29. Symmetric Measures

		Value	Approx. Sig.
Nominal by Nominal	Phi	-.117	.267
	Cramer's V	.117	.267
N of Valid Cases		90	

a. Not assuming the null hypothesis.

b. Using the asymptotic standard error assuming the null hypothesis.

Phi coefficient value which shown in the table 29. symmetric measures is -.117, which is considered considerably small effect according to the effect using Cohen's (1988) criteria of .10 for small effect, .30 for medium effect and .50 for large effect.

Table 30 Sex * PCS Preferred city structure Crosstabulation shows that among of city elements like streets, pedestrian bridge, buildings, parks, and bus stations the most preferred element is building with 42.0% >29.5% Bus station > 10.2% parks and streets > 8.0% pedestrian bridge.

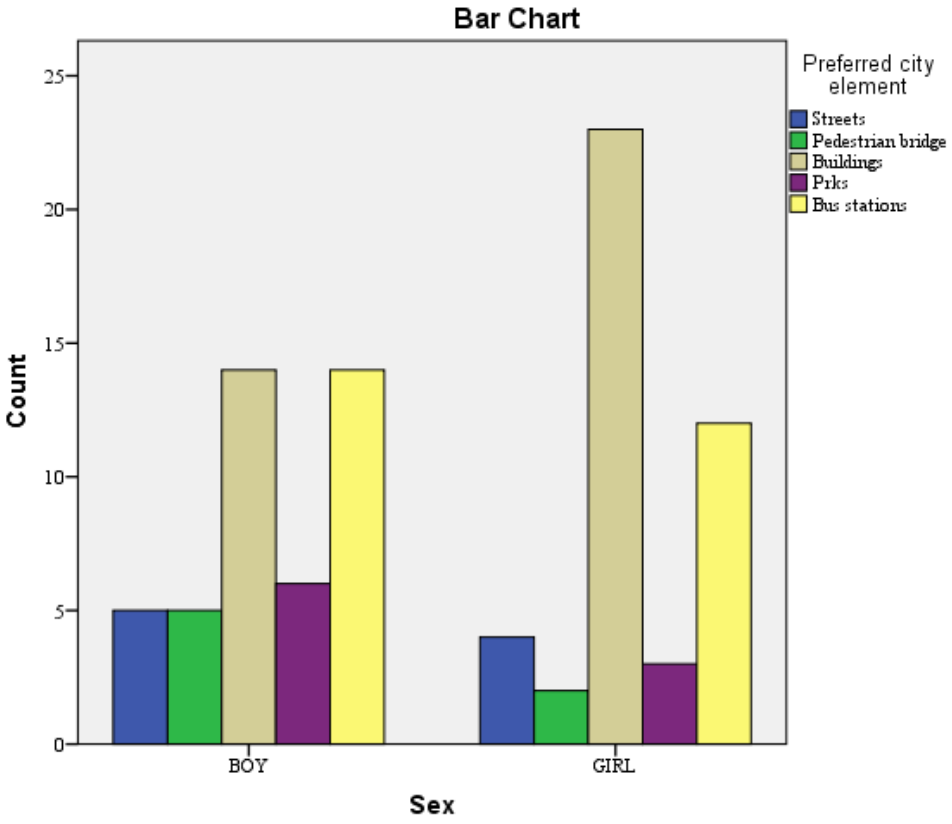

Figure 32 Bar Chart of gender differentiations and preferred city elements.

Table 30. Sex * PCS Preferred city elements Crosstabulation

			PCS Preferred city structure					Total
			1 Streets	2 Pedestrian bridge	3 Buildings	4 Parks	5 Bus stations	
Sex	1 BOY	Count	5	5	14	6	14	44
		% within Sex	11.4%	11.4%	31.8%	13.6%	31.8%	100.0%

		% within PCS Preferred city structure	55.6%	71.4%	37.8%	66.7%	53.8%	50.0%
		% of Total	5.7%	5.7%	15.9%	6.8%	15.9%	50.0%
	2 GIRL	Count	4	2	23	3	12	44
		% within Sex	9.1%	4.5%	52.3%	6.8%	27.3%	100.0%
		% within PCS Preferred city structure	44.4%	28.6%	62.2%	33.3%	46.2%	50.0%
		% of Total	4.5%	2.3%	26.1%	3.4%	13.6%	50.0%
Total		Count	9	7	37	9	26	88
		% within Sex	10.2%	8.0%	42.0%	10.2%	29.5%	100.0%
		% within PCS Preferred city structure	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%
		% of Total	10.2%	8.0%	42.0%	10.2%	29.5%	100.0%

Preferred City elements among population of sample:

Building 42.0% >29.5% Bus station > 10.2% parks and streets > 8.0% pedestrian bridge.

Proffered City elements among Boys in the sample:

Building & Bus station 31.8% > Parks 13.6% > Pedestrian bridge and Streets 11.4%

Preferred City elements among girls in the sample:

Building 2.3% > Bus station 27.3% > Streets 9.1% >Parks 6.8 > Pedestrian bridges 4.5%

Table 31. revealed the children general perception toward the city as a play space.

Table 31. Sex * CPS City as a play space Crosstabulation

			CPS City as a play space		Total
			1 YES	2 NO	
Sex	1 BOY	Count	26	20	46
		% within Sex	56.5%	43.5%	100.0%
		% within CPS City as a play space	53.1%	47.6%	50.5%

	2 GIRL	% of Total	28.6%	22.0%	50.5%
		Count	23	22	45
		% within Sex	51.1%	48.9%	100.0%
		% within CPS City as a play space	46.9%	52.4%	49.5%
		% of Total	25.3%	24.2%	49.5%
Total		Count	49	42	91
		% within Sex	53.8%	46.2%	100.0%
		% within CPS City as a play space	100.0%	100.0%	100.0%
		% of Total	53.8%	46.2%	100.0%

According to the table 31.Sex * CPS City as a play space Crosstabulation, 53.8% of children's perception is city as a play space while 46.2% of children perception is city is not play space. For clarifying this question; 'can city be a place for play?' accompanies another question in questionnaire which was given to children; 'Is it possible to play in every place in city?'

Table 32. Chi-Square Tests

	Value	df	Asymp. Sig. (2-sided)	Exact Sig. (2-sided)	Exact Sig. (1-sided)
Pearson Chi-Square	.268[a]	1	.605		
Continuity Correction[b]	.094	1	.759		
Likelihood Ratio	.268	1	.605		
Fisher's Exact Test				.676	.379
Linear-by-Linear Association	.265	1	.607		
N of Valid Cases	91				

a. 0 cells (0.0%) have expected count less than 5. The minimum expected count is 20.77.

b. Computed only for a 2x2 table

The main value that we are interested in from the out-put is the Pearson-chi-square value, which is presented in the table 32. Chi-Square Tests. In the table mentioned above the corrected value in Continuity Correction is .094, with an associated significance level of .759, which is in the column labelled Asymp. Sig. (2-sided). To be significant the Sig. value needs to be .05 or smaller, in this survey the value of .759 is larger than the alpha value of.05, so we can conclude that our result is not significant this means that the proportion of boys who think city can be as a play space is not significantly different from the proportion of girls with the same perception. There appears to be no association between children perception of city as a play space and their gender.

Table 33. Symmetric Measures

		Value	Approx. Sig.
Nominal by Nominal	Phi	.054	.605
	Cramer's V	.054	.605
N of Valid Cases		91	

a. Not assuming the null hypothesis.

b. Using the asymptotic standard error assuming the null hypothesis.

Phi coefficient value which shown in the table 33. symmetric measures is .054, which is considered considerably small effect according to the effect using Cohen's (1988) criteria of .10 for small effect, .30 for medium effect and .50 for large effect.

Another question asked children for estimating their perception about city was; is there possibility for playing in every place in a city?

Table 34. Sex * PPEPC Possibility of play in every places of city Crosstabulation

			PPEPC Possibility of play in every places of city		Total
			1 YES	2 NO	
Sex	1 BOY	Count	7	39	46
		% within Sex	15.2%	84.8%	100.0%
		% within PPEPC Possibility of play in every places of city	63.6%	48.8%	50.5%
		% of Total	7.7%	42.9%	50.5%
	2 GIRL	Count	4	41	45
		% within Sex	8.9%	91.1%	100.0%
		% within PPEPC Possibility of play in every places of city	36.4%	51.2%	49.5%
		% of Total	4.4%	45.1%	49.5%
Total		Count	11	80	91
		% within Sex	12.1%	87.9%	100.0%
		% within PPEPC Possibility of play in every places of city	100.0%	100.0%	100.0%
		% of Total	12.1%	87.9%	100.0%

To find what percentage of each sex have a perception of play in every place in the city, it is necessary to look at the summery information provided in table 34, labeled Sex * PPEPC/ Possibility of play in every places of city Crosstabulation. The value next to the % within Sex shows that 15.2% of boys think that it is possible to play in every place in the city and for girls this percentage is 8.9%, while 84.8% of boys and 87.9% of girls do not have this perception. From total of sample just12.1% of children think that there is possible to play in every place of the city.

-Is there any association between gender and the perception of play in every place of the city?

Table 35. Chi-Square Tests

	Value	df	Asymp. Sig. (2-sided)	Exact Sig. (2-sided)	Exact Sig. (1-sided)
Pearson Chi-Square	.857[a]	1	.354		
Continuity Correction[b]	.365	1	.546		
Likelihood Ratio	.868	1	.352		
Fisher's Exact Test				.522	.274
Linear-by-Linear Association	.848	1	.357		
N of Valid Cases	91				

a. 0 cells (0.0%) have expected count less than 5. The minimum expected count is 5.44.

The main value that we are interested in from the out-put is the Pearson-chi-square value in table 35 which is presented in the Chi-Square Tests. In the table mentioned above the corrected value in Continuity Correction is.365, with an associated significance level of .546, which is in the column labelled Asymp. Sig. (2-sided). To be significant the Sig. value needs to be .05 or smaller, in this survey the value of .546 is larger than the alpha value of.05, so we can conclude that our result is not significant this means that the proportion of boys who think that in every place of city there is possibility for play is not significantly different from the proportion of girls with the same perception. There appears to be no association between children perception of playing in every place of city and their gender.

Table 36. Symmetric Measures

		Value	Approx. Sig.
Nominal by Nominal	Phi	.097	.354
	Cramer's V	.097	.354
N of Valid Cases		91	

a. Not assuming the null hypothesis.

b. Using the asymptotic standard error assuming the null hypothesis.

Phi coefficient value which shown in the table 36. symmetric measures is .097, which is considered small effect according to the effect using Cohen's (1988) criteria of .10 for small effect, .30 for medium effect and .50 for large effect.

Data analysis of adults perception about Ankara as a play space

For recognizing adult perception in Ankara about city as a space of joy and play for children, level of measurement or type of questionnaire which were used is categorical type or nominal data. According to the table 37 and bar chart below from 82 valid responses and total frequencies; 26.8% of populations of this survey are male while 73.2% related to the female's responses.

Table 37. SEX

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	1 MALE	22	26.8	26.8	26.8
	2 FEMALE	60	73.2	73.2	100.0
	Total	82	100.0	100.0	

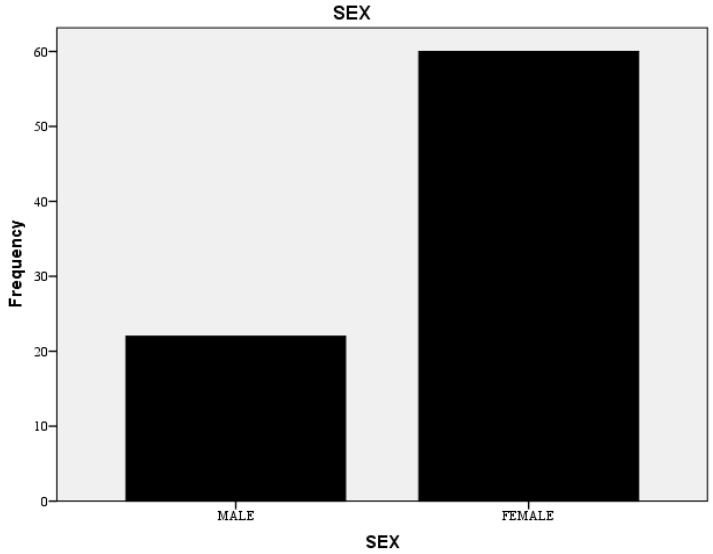

Figure 33 Bar Chart of adult gender frequency.

Table 38 and bar chart below shows respondent's number of children as table below illustrated among 82 individuals who respond to the questionnaire 51.2% of them have one child. This percentage important because in our contemporary era which most of family who prefer to have one child, such idea of city as a playground can provide context of children interaction in city wide among different rage of age group and can be replacement for lack of interactive play between sibling in a family.

Family with 5 and more than five children 1.2% < Family with 4 children 2.4% < Family with 3 children 7.3% < Family with 3 children 7.3% < Family with 2 children 36.6% < Family with 1 child 51.2%

Table 38. CNumber Number of children

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	1 One	42	51.2	51.2	51.2
	2 Two	30	36.6	36.6	87.8

	3 Three	6	7.3	7.3	95.1
	4 four	2	2.4	2.4	97.6
	5 Five and more	1	1.2	1.2	98.8
	99	1	1.2	1.2	100.0
	Total	82	100.0	100.0	

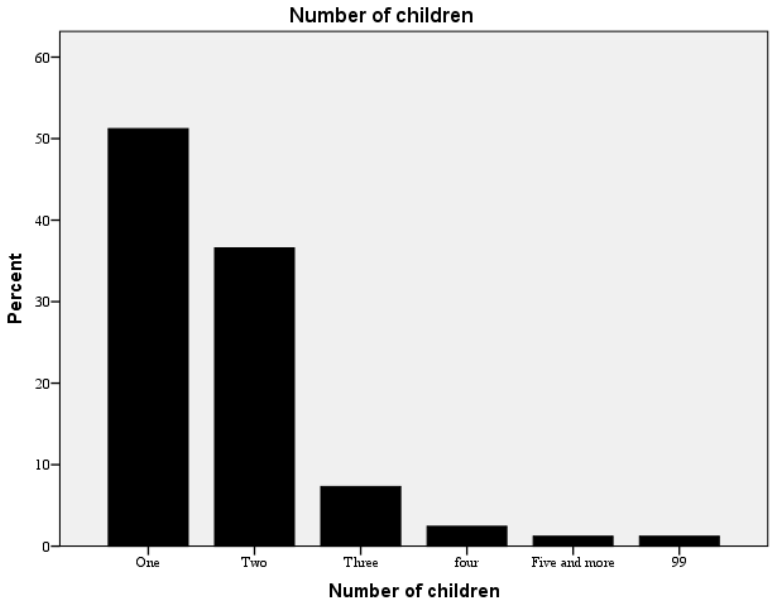

Figure 34 Bar Chart of number of children in a family

One of questions that was asked is about accompanying of children with their care giver while they are going in city wide for different aims. From valid 82 answers to this question 75.6% of respondent prefer to go in city wide with their children and 13.4% of population of survey is going to the city if there is necessities but they do not take children with them.

Table 39 and bar chart below revealed that: 3.7% of people prefer not to take children in city center because it is not proper place for children < 4.9% of people do not like to go

in city center for any reason < 13.4% of people express that they are going to city center but they prefer not to take children < 75.6% of people prefer to go in city center with their children

This result revealed that among already existed elements in city and sprit of city center by itself have enough attraction for citizen; therefore, it is predicted that if there will be reclaiming design for some elements in city center this percentage will be increase impressively.

Table 39. CCC Going to city center with accompanying of their child

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	1 I go to the city but I do not take my child with	11	13.4	13.4	13.4
	2 Yes I am going with my child	62	75.6	75.6	89.0
	3 No, I never take my child in city center because it is not proper place for child	3	3.7	3.7	92.7
	4 No, I never go to city center for shopping and for walking	4	4.9	4.9	97.6
	99	2	2.4	2.4	100.0
	Total	82	100.0	100.0	

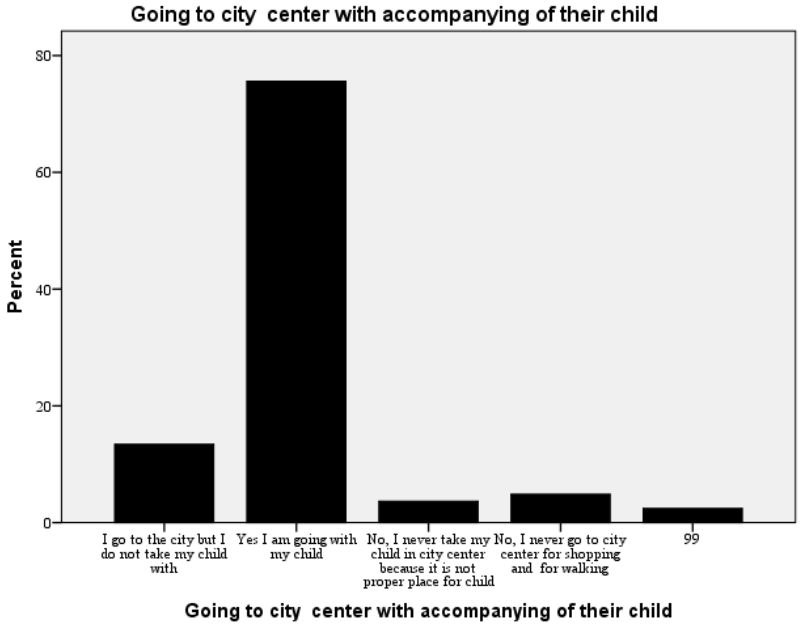

Figure 35 Bar Chart of accompanying children with adult when they are going in city wide.

A question was asked people to estimate is roaming in citywide by itself as an activity demanding for adult? Results from responses of this question reveled that although 75.6% of adult prefer to take their child in city wide while they are going to city center for certain aim, but they might think city is not proper place for roaming and wandering around. The importance of this result is that if adult as children's caregiver are not going to use city as a roaming space the possibility of taking their children to the city wide will be dependent of adult's needs and certain aims for going in city wide and city center.

Result of this question can clear need for reclaiming design of some elements in city in a way that entice public to go to city wide with the aim of roaming. 59.2% of survey population preferred walking through city wide while for47.6% of population roaming in city wide is not demanding.

Table 40. WDA Walking through city wide is demanding

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	1 YES	42	51.2	51.2	51.2
	2 NO	39	47.6	47.6	98.8
	99	1	1.2	1.2	100.0
	Total	82	100.0	100.0	

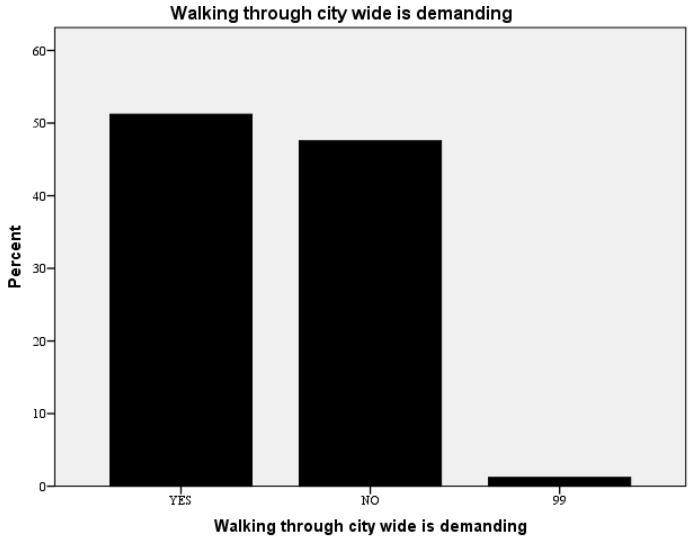

Figure 36 Bar Chart of adult tendency and their demand for walking through city wide

Question; 'Is visiting city interesting for children?' was asked from parents to understand their perception about city as a place of joy and excitement for children. Result revealed that; 56.1% of survey population believed that visiting city is not interesting for children and 42.7% of population has opposed idea.

Table 41. VCIC Visiting city is interesting for children

	Frequency	Percent	Valid Percent	Cumulative Percent

Valid	1 YES	35	42.7	42.7	42.7
	2 NO	46	56.1	56.1	98.8
	99	1	1.2	1.2	100.0
	Total	82	100.0	100.0	

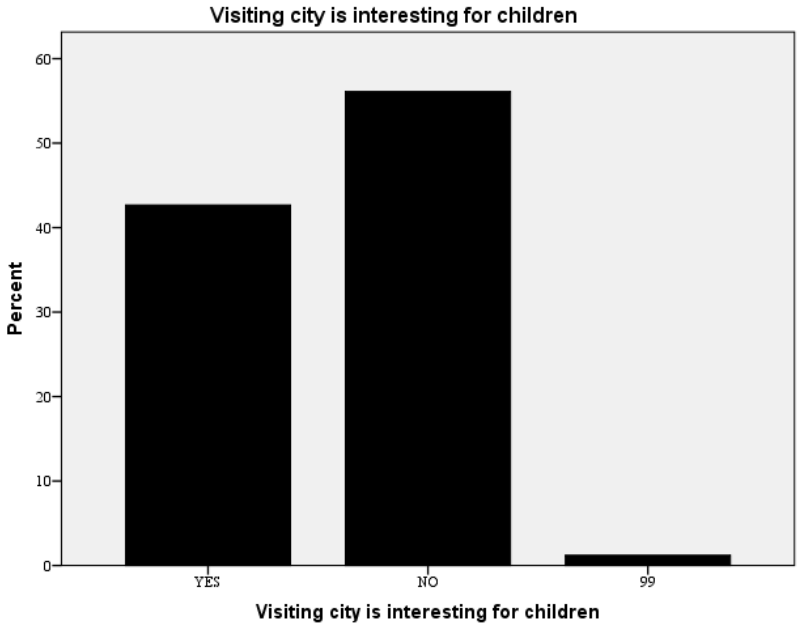

Figure 37 Bar Chart of adult opinion about visiting city as an interesting activity for children.

design ideas which discussed through previous chapters shaped according to the needs and rights of children to play, one aspect is considered as a child friendly city can be responding to the children's need to play. A question was asked through questionnaire about this point to estimate adult perception about needs of children for play and the result revealed that; although, play considered as one of crucial needs of children but in adult perception safety considerations are sign of child friendly city, although these safety considerations were not precisely clarified in questionnaire that; 'in which sense' and 'which level should make children environment safe?'. But it seems that perception

of safety is twisted with the contemporary perception from children's environment. The result from table 42, illustrated that the most important characteristic of child friendly city according to the perception of adult can be defined;

Using bright and flashy colors in built environment = constructions according to the size of children 4.8% < its construction should be playful and creative 25.3% < it should construct according to security and safety considerations 61.4%

Table 42. ICCFC The most important characteristic of child friendly city

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	1 Using bright, flashy and colorful colors in built environment	4	4.8	4.8	4.8
	2 It should contains structure suitable in size for children	4	4.8	4.8	9.6
	3 Security and safety considerations	51	61.4	61.4	71.1
	4 It should construct playful and creative	21	25.3	25.3	96.4
	99	3	3.6	3.6	100.0
	Total	83	100.0	100.0	

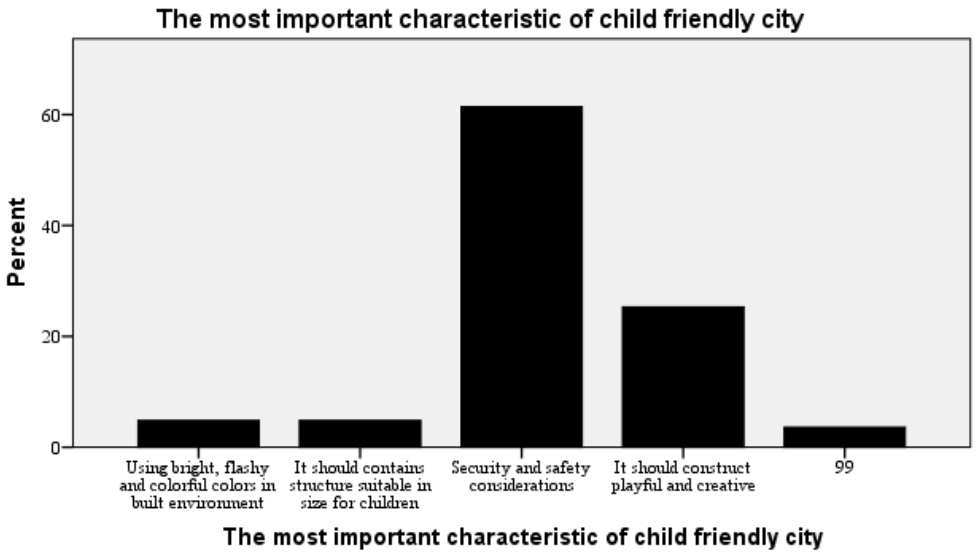

Figure 38 Bar Chart of the most important characteristic of child friendly city by perception of adult.

Although in previous question adult perception about child friendly city seemed related to the safety considerations more than being playful and creative environment for children, in the next level while through questionnaire was asked about children integration and its relation to creativity 70.7% of adult believed that children integration with city effects on their creativity which presented in table 43.

Table 43. CICC Children integration with city effect on their creativity

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	1 YES	58	69.9	70.7	70.7
	2 NO	21	25.3	25.6	96.3
	99	3	3.6	3.7	100.0
	Total	82	98.8	100.0	
Missing	System	1	1.2		
Total		83	100.0		

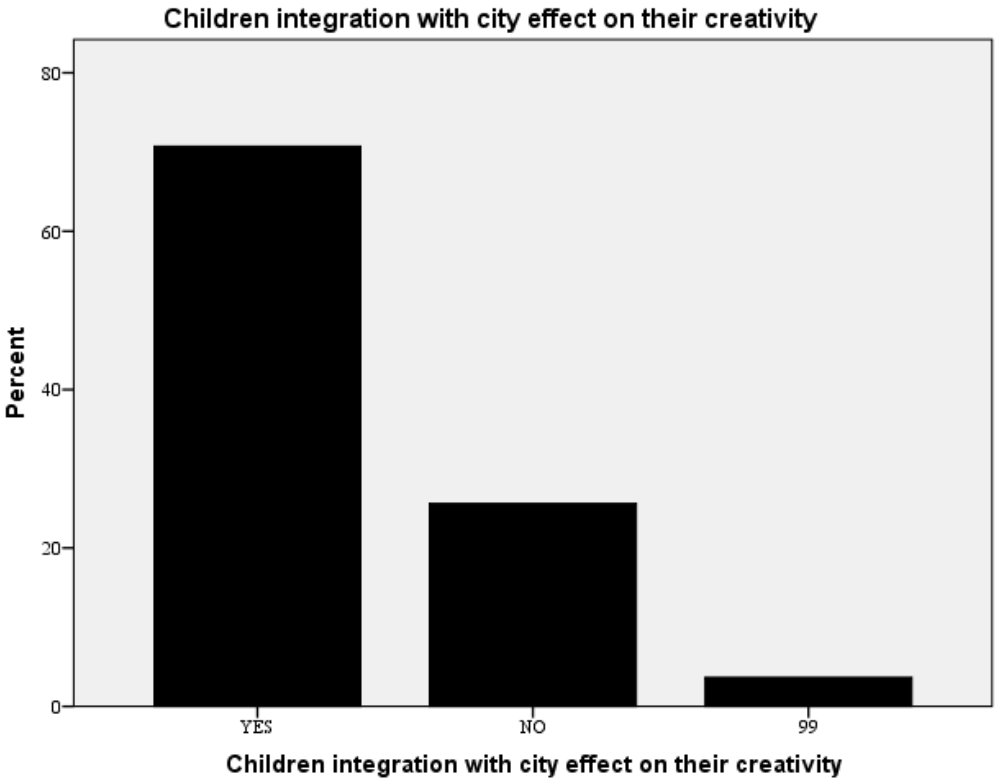

Figure 39 Bar Chart of perception of adult about children's integration with city and its influence on their creativity.

Question that illustrated perception of adult about educational roles of built environment was asked from adult and the result in table 44 revealed that 83.1% of respondent believe that, urban life and structure of city educate children rules of social life, while 15.7% of population had opposite opinion.

Table 44. UEC Urban life and structure of city can educate children rules of social life

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	1 YES	69	83.1	83.1	83.1

	2 NO	13	15.7	15.7	98.8
	99	1	1.2	1.2	100.0
	Total	83	100.0	100.0	

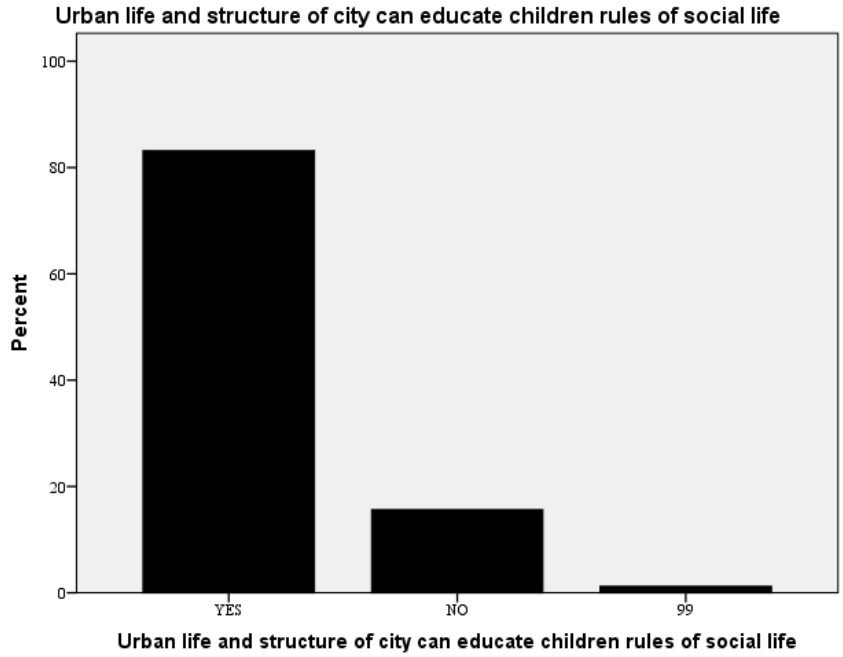

Figure 40 Bar Chart of adult perception about urban life and its educational influence on children.

While was asked parents ‘do they prefer to go in citywide or city center with children or they prefer to go alone?’; from 83 valid answers 66.3% of population prefer to go in city wide while they are accompanying with their children while 32.5% of respondent prefer to go in city wide alone.

Table 45. CorA Preference for going to city wide with child or alone

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	1 I prefer to go through citywide alone	27	32.5	32.5	32.5

2 Prefer to go with my family and child	55	66.3	66.3	98.8
99	1	1.2	1.2	100.0
Total	83	100.0	100.0	

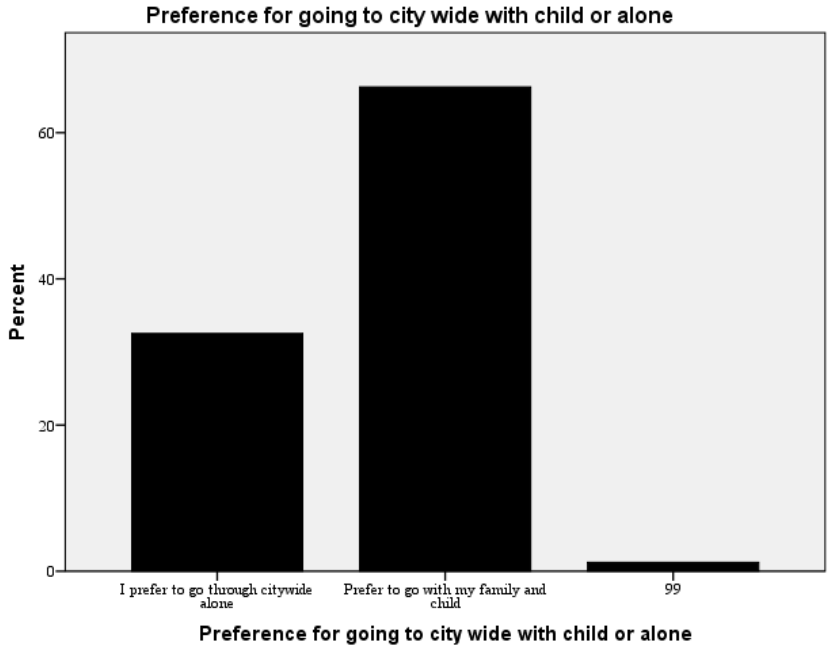

Figure 41 Bar Chart of adult tendency for going to citywide with their children

Question asked about usage of the city by adult to estimate how much adult use city as a place for roaming and the result in table 46 revealed that; 4.8% of people regularly go to city wide with the aim of roaming< 18.1% of adult believed that just roaming in city is interesting and enjoyable activity < 32.5% of adult do not like the city (Ankara) that they live and they just obligated to go through city wide and respond to their needs < 43.4% of adult respond that if there will be some needs and aim for doing things they are going in city wide

The result which illustrated through table and bar chart below revealed that city by itself in perception of citizen is not a place for joy and spending spare time in; although , they believe in that city can educate and influence on children creativity.

Table 46. GUC General usages of city

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	1 Every time that I am going in the city I have something to do	36	43.4	43.4	43.4
	2 I regularly go out for a walk or for wandering around without any aim	4	4.8	4.8	48.2
	3 Roaming in a city is interesting and enjoyable activity	15	18.1	18.1	66.3
	4 I do not like the city I live, but I have to use it according to my needs	27	32.5	32.5	98.8
	99	1	1.2	1.2	100.0
	Total	83	100.0	100.0	

APPENDICES B1

QUESTIONNAIRES PERMISSIONS LETTER

Cityscape Playground adlı projesi değerlendirilmiştir.

Proje etik açıdan uygun bulunmuştur. ☒

Projenin etik açısından geliştirilmesi gerekmektedir. ☐

Proje etik açısından uygun bulunmamıştır. ☐

İmzalar:

Etik Kurulu Başkanı

Prof.Dr. Nurettin BİLİCİ

uygundur

Etik Kurulu Üyesi | Etik Kurulu Üyesi | Etik Kurulu Üyesi

Etik Kurulu Üyesi | Etik Kurulu Üyesi | Etik Kurulu Üyesi

Etik Kurulu Üyesi | Etik Kurulu Üyesi

Prof.Dr. Mahir Nakip | Prof.Dr. M. Gürsel

APPENDICES C1

SAMPLE OF CHILDREN QUESTIONNAIRE

Anket 1: Çocuklar Için

Tarih:

Giriş: Bu anket, Çankaya Üniversitesi'nde yüksek lisans öğrenimi görmekte olan bir öğrencinin araştırmasının bir bölümü olarak hazırlanmıştır. Lütfen aşağıdaki soruları tam ve dürüst bir şekilde cevaplayınız. Vereceğiniz bilgiler hiçbir şekilde başkasıyla paylaşılmayacak ve sadece akademik araştırma maksadıyla kullanılacaktır.

Lütfen soruları cevaplamak için kutulardan birini örnekte gösterildiği şekilde işaretleyiniz:

☒

Kız mısın erkek misin?

Erkek ☐ Kız ☐

Kaç yaşındasın?

(2-3) ☐ (3-5) ☐ (6-8) ☐ (9-11) ☐ (12-14) ☐ (15-17) ☐

1) **Çocuk bahçesinde hiç tanımadığın başka çocuklarla oynamaktan mutlu oluyor musun?**

   Evet ☐ Hayır ☐

2) **Senin için hangisi oynamak için daha heyecan verici bir yer?**

Kendi odan ☐ Kendi evin ☐

Büyükannenin veya bir akrabanın evi ☐

Sokak Oyun alanları ve parklar ☐

Alışveriş merkezlerindeki kapalı eğlence alanları ☐

3) **Alışveriş ve diğer ihtiyaçlar içinsokağa çıktıklarında anne-babanla birlikte şehre gitmek hoşuna gidiyor mu?**

Evet ☐ Hayır ☐

4) **Sence şehirler çocuklar için mi?**

Evet, bence çocuklara göre ☐

Hayır, bence çocuklara göre ☐

5) **Hiç sokakta oyun oynuyor musun?**

Evet ☐ Hayır ☐

6) **Kendi mahallendeki ya da sokağındaki çocuklarla oynamak için düzenli olarak sokağa çıkıyor musun?**

Evet ☐ Hayır ☐

7) **Şehirde en çok nerede bulunmaktan hoşlanıyorsun?**

Sokaklar ☐ Yaya üst geçitler ☐

Kaldırımlar ☐ Otobüs durakları ☐ Dükkan vitrinleri ☐

8) Otobüs durağında beklerken sıkılıyor musun?

Evet ☐ Hayır ☐

9) Yaya üst geçitlerinden geçmekten hoşlanıyor musun?

Evet ☐ Hayır ☐

10) Otobüs ile gezmeye gitmeyi seviyor musun?

Evet ☐ Hayır ☐

11) Şehrin en sevmediğin yerleri nereler?

Sokaklar ☐ Yaya üst geçitleri ☐ Binalar ☐

Parklar ☐ Otobüs durakları ☐

12) Sence şehirde oyun oynayabilir miyiz?

Evet ☐ Hayır ☐

13) Sence şehrin her yerinde oyun oynamak mümkün müdür?

Evet ☐ Hayır ☐

APPENDICES D1

SAMPLE OF ADULT QUESTIONNAIRE

Anket 2

Tarih:

Giriş: Bu anket, Çankaya Üniversitesi'nde yüksek lisans öğrenimi görmekte olan bir öğrencinin araştırmasının bir bölümü olarak hazırlanmıştır. Lütfen aşağıdaki soruları tam ve dürüst bir şekilde cevaplayınız. Vereceğiniz bilgiler hiçbir şekilde başkasıyla paylaşılmayacak ve sadece akademik araştırma maksadıyla kullanılacaktır.

Lütfen soruları cevaplamak için kutulardan birini örnekte gösterildiği şekilde işaretleyiniz:

☒

1) Yaşınız ve cinsiyetiniz

Kadın ☐ Erkek ☐

Yaş: ……..

2) Kaç çocuğunuz var?

Bir ☐ İki ☐ Üç ☐ Dört ☐ Beş veya daha fazla ☐

3) Çocuklarınız kaç yaşında?

Bebek (0-12 ay) ☐

(1-2 yaş arası) ☐ (2-3 yaş arası) ☐ (3-5 yaş arası) ☐

(6-8 yaş arası) ☐

(9-11 yaş arası) ☐ (12-14 yaş arası) ☐ (15-17 yaş arası) ☐

4) Yürüyüş, alışveriş veya diğer amaçlar için sokağa çıktığınızda (özellikle şehir merkezine indiğinizde) genelde çocuklarınızı yanınızda götürür müsünüz?

Şehre inerim ama çocuklarımı götürmem ☐

Evet, şehre çocuklarımla beraber giderim ☐

Hayır, şehir merkezine hiçbir zaman çocuklarımı götürmem çünkü şehir çocuklar için uygun bir yer değil ☐

Hayır, şehir merkezine hiçbir zaman alışveriş ve yürüyüş yapmak için gitmem ☐

5) Sizce şehirde sadece yürüyüş ve gezinti yapmak insanlar için keyifli ve eğlenceli bir faaliyet midir?

Evet ☐ Hayır ☐

6) Sizce şehirde gezinmek çocuklar için keyifli ve eğlenceli bir faaliyet midir?

Evet ☐ Hayır ☐

7) Çocuk dostu bir şehirde olması gereken en önemli özellik nedir?

Çeşitli ve parlak renklerin kullanılması ☐

Çocuklara uygun boyutlarda yapıları da içermesi ☐

Güvenliğin göz önünde tutulması ☐

Oyunsu ve yaratıcı bir yapıda olması ☐

8) Sizce çocukların şehre entegre olmalarının yaratıcılıklarına bir etkisi olur mu?

Evet ☐ Hayır ☐

9) Sizce şehirde dolaşmaya çıktığınızda şehrin yapısı ve şehir yaşamı, çocuklarınızın yaşamla ilgili kuralları ve sosyal davranışları öğrenmesini sağlayabilir mi?

Evet ☐ Hayır ☐

10) Alışveriş veya başka bir maksatla şehre indiğinizde yalnız gitmeyi mi tercih edersiniz, yoksa çocuklarınızı yanınızda götürür müsünüz? Lütfen nedeninizi birkaç kısa cümle ile açıklayınız.

Şehre yalnız inmeyi tercih ederim, çünkü ☐

…….

Çocuklarımla ya da bütün ailemle inmeyi tercih ederim, çünkü ☐

……..

11) Şehri ve şehrin yapısını genelde ne şekilde kullanırsınız?

Ne zaman şehre insem hep yapacak bir şeyim vardır ☐

Herhangi bir amacım olmaksızın düzenli olarak sokata gezmeye ve yürümeye çıkarım ☐

Şehirde dolaşmak benim için eğlenceli ve keyifli bir aktivitedir ☐

Yaşadığım şehri sevmiyorum ama ihtiyaçlarım sebebiyle onu kullanmak durumundayım ☐

APPENDICES E1

PHOTO DOCUMENTATION OF OBSERVATION ANKARA

Figure 42, Figure 43 Children usage of surfaces layout for their activities city center of Ankara (Photo taken by author)

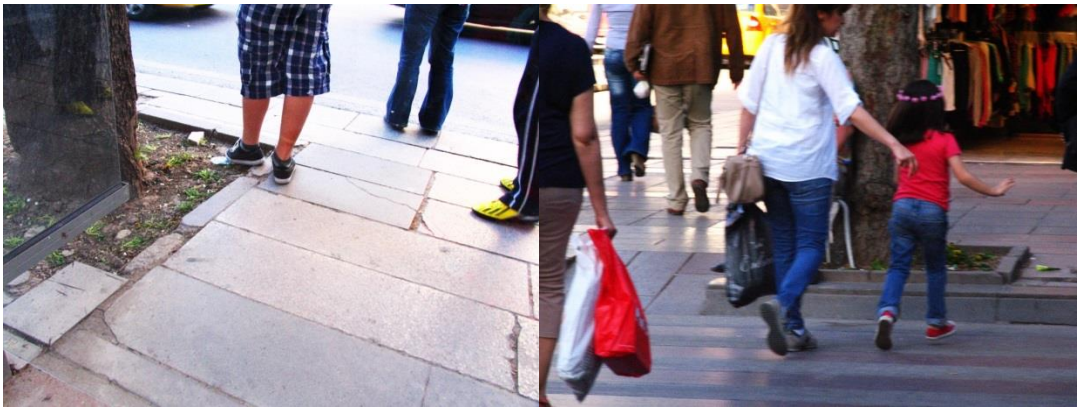

Figure 44, Figure 45 Children use boundaries between tiles for their play activities (Photo taken by author)

Figure 46, Figure 47, Figure 48 Child try to play with blue line (boundaries of tiles) (Photo taken by author)

Figure 49 Girls playing with tile's boundaries and chatting in streets with each other (Photo taken by author)

Figure 50, Figure 51 Boys play with ball in front of empty space of book store city center of Ankara (Photo taken by author)

Figure 52, Figure 53 Boys are playing football in front of book store, Girl look at the stranger (Photo taken by author)

Figure 54, Figure 55 Girls passing through streets (Photo taken by author)

Figure 56 , Figure 57 Boy and his curiosity (Photo taken by author)

Figure 58 Boys and his spontaneous playful behavior in city, city center of Ankara (Photo taken by author)

Figure 59, Figure 60 girl while she is jumping, city center of Ankara

(Photo taken by author)

Figure 61 Children participation in an activity in city, city center of Ankara

(Photo taken by author)

Figure 62, Figure 63 integrating with natural stimuli in city (Photo taken by author)

Figure 64, Figure 65 Tile texture is interesting for children (Photo taken by author)

Figure 66, Figure 67 Children curiosity about different stimuli (Photo taken by author)

Figure 68, Figure 69 Children and different stimuli in city kuğulu park-Ankara, Kızılay-Ankara (Photo taken by author)

Figure 70, Figure 71 Boy try to adapt his tiptoes with stairs in side walk Tunalı Hilmi Street, Girl use the Guard as a play unit to jump over it. (Photo taken by author)

Figure 72, Figure 73, Figure 74 Playful activity with elements in city, Tunalı Hilmi Street (Photo taken by author)

Figure 75, Figure76 Girl found out joy while she consciously plays with tiles boundaries, Girl looking at other children's play activity (Photo taken by author)

Figure 77, Figure 78 Boy used guard as a sitting place for finishing his food. Boy sat on his father's shoulders and observed city from different height (Photo taken by author)

Figure 79, Figure 80, Figure 81 Children and surfaces layout Kızılay-Ankara (Photo taken by author)

Figure 82 Boy using edge of pool for his play while parents eating their food Kızılay-Ankara (Photo taken by author)

Figure 83, Figure 84 Boy try to jump over yellow line in side walk, Girl try to stand Kızılay-Ankara over surfaces layout while she was enticed by flower (Photo taken by author)

Figure 85 Girls use guard as a place for sitting and watching street (Photo taken by author)

Figure 86, **Figure 87** Children and their curiosity while playing with fountains and water pipe (Photo taken by author)

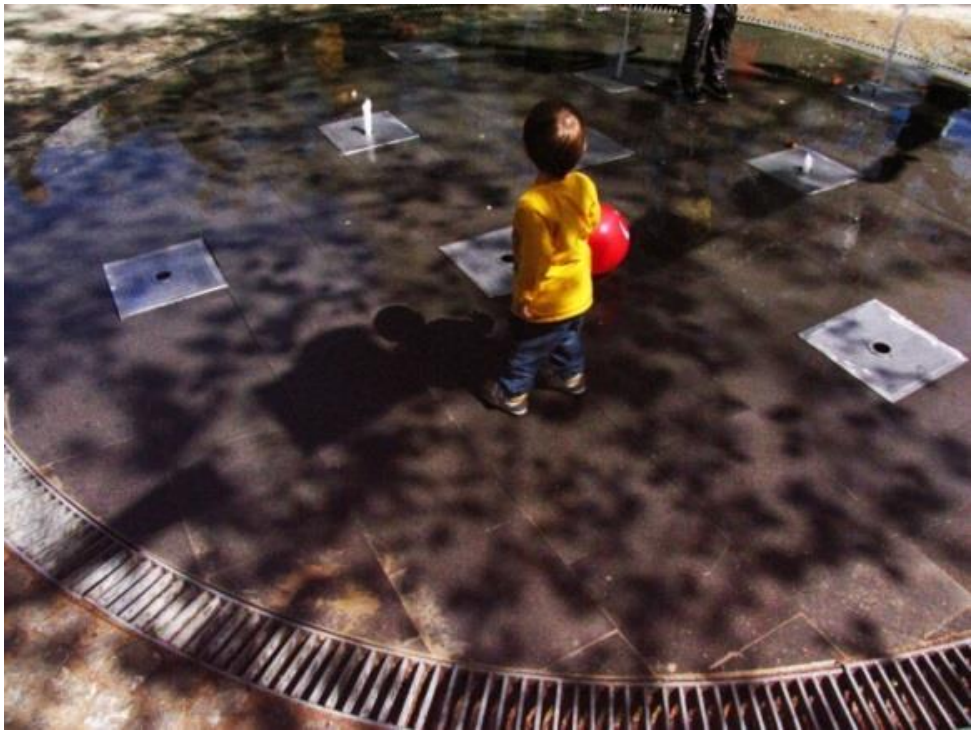

Figure 88 Child and fountains, Ankara-Turkey (Photo taken by author)

Figure 89, girls while she wanted to jump from higher surfaces layout

APPENDICES F1

PHOTO DOCUMENTATION OF OBSERVATION-TEHRAN

Figure 90 Children found ants on edge of the wall while they were roaming in Amirabad Street in Tehran-Iran (Photo taken by author)

Figure 91 Boy found out ant on the edge of wall and play with these natural stimuli in street Amirabad Street in Tehran-Iran (Photo taken by author)

Figure 92, Figure 93 Children are curious about building constructions, Children try their foot print on the sand inside empty space in front of building Amirabad Street in Tehran-Iran (Photo taken by author)

Figure 94, Figure 95 Children try to play with the empty space which was for further greenery in front of building, children try to play and run over ramp in front of parking gate of building, Amirabad Street in Tehran-Iran (Photo taken by author)

Figure 96, Figure 97 Children's responses to the object and quality of its form Amirabad Street in Tehran-Iran (Photo taken by author)

Figure 98, Figure 99 Girls trying to see behind textures of glass, Children playing in the street freely, Amirabad Street in Tehran-Iran (Photo taken by author)

Figure 100, Figure 101 Boy in street while he inspired by phone booth for his imitate play, Amirabad Street in Tehran-Iran (Photo taken by author)

Figure 102, Figure 103 Children were curious about seeds for birds which changed texture of ground, Amirabad Street in Tehran-Iran (Photo taken by author)


Figure 104, Figure 105 Children were in constant trying of every elements in city, quality of objects are inspiring for them for their imitate play, Amirabad Street in Tehran-Iran (Photo taken by author)



Figure 106, Figure 107, Figure 108 Children in front of garage door, and boy tried to go up from parallel lines of door, Amirabad Street in Tehran-Iran (Photo taken by author)

APPENDICES G1

CURRICULUM VITAE

PERSONAL INFORMATION

Surname, Name: Ranjbar Moghaddam, Morsaleh

Date and Place of Birth: 5 September, 1982, Tehran

Marital Status: Single

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Email: morsalehranjbarmoghaddam1982@gmail.com, artistgirl61@yahoo.com
morsaleh@acmtr.org

EDUCATION

Degree	Institution	Year of Graduation
M.Sc.	Çankaya Univ., Interior Architecture	2014
BFA	University of Tehran, Graphic Design , Tehran-Iran	2006
High School	Farasat, Tehran-Iran	2000

WORK EXPERIENCE

Year	Place	Enrollment
20014- Present	Children's Research Center of Ankara	Researcher
2003 - 2010	Nonahalan Kindergarten	Teacher of Creative Art of preschool children
2003 - 2010	Forogh Kindergarten	Teacher of Creative Art of preschool children

FOREIN LANGUAGES

1- Native language; Persian (Farsi)
2- Advanced English
3- Intermediate in Turkish language
4- Beginner in French Language

HONOURS AND AWARDS

1- Participation in International Child in The City Conference as speaker – 'Assuming City as a Palyground' / Southern Denmark University, Odense-Denmark 29 September -2 October.
2- Partcicipation in International Semiotics Conference as speaker -Invisible Reality; "City as a Playground" / Cankaya University –Ankara-Turkey 08-09-10 October 2013.

3- Selected project “City as a Play Ground” in Tubitak innovation and entrepreneurship competition 2238 in Turkey and being selected among 25th latest.
4- project among 300 project and awarded in first two levels of competition, 2013.
5- Participating in International Conference for Entrepreneurship Innovation And Regional Development June 20-21, 2013, Istanbul –Turkey.
6- Certificate of participation in Workshop of “Hacettepe University; Hacettepe Grafik Tasarım Çalıştayı” in field of video mapping projection, April-2013.
7- Admission and Partial fund-scholarship from Atlanta Savannah College of Art and Design (SCAD) at MFA of Illustration, 2009.
8- Honored as a "Creative and Innovative Art Teacher" in Nonahalan Kindergarten, Tehran-Iran, 2008.
9- Certificate of the International Conference on Art Instruction, Tehran–Iran, 2007.
10- Honored as a "Creative Illustration Teacher" in Forogh Kindergarten, Tehran-Iran, 2004.
11- Letter of Commendation from International Japan Competition of Photography "AsahiShimbun photo Contest",Japan, 2003-2004.
12- 30th Rank in National Entrance Exam of BA Degree in the entire fields of Arts-Graphic Design (among 500000 competitors), Tehran-Iran, 2001.
13- 5th Rank in National Entrance Exam of BA Degree in the entire fields of Arts-Sculpture (among 500000 competitors), Tehran-Iran, 2001.

HOBBIES

Regular sportive activity swimming and jogging, meditation-yoga, running, mountain climbing,reading books, illustration& painting, making ceramic sculpture,environmental art, photography, watching movies and animations, writing poem, planting flower.