GENDER-RELATED CATEGORIZATIONS OF TOYS BY PRESCHOOL
CHILDREN: A STUDY ON DESIGN FEATURES

A THESIS SUBMITTED TO
THE GRADUATE SCHOOL OF NATURAL AND APPLIED SCIENCES
OF
MIDDLE EAST TECHNICAL UNIVERSITY

BY

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IN PARTIAL FULFILLMENT OF THE REQUIREMENTS
FOR
THE DEGREE OF MASTER OF SCIENCE
IN
INDUSTRIAL DESIGN

FEBRUARY 2018

Approval of thesis:

GENDER-RELATED CATEGORIZATIONS OF TOYS BY PRESCHOOL
CHILDREN: A STUDY ON DESIGN FEATURES

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ABSTRACT

GENDER-RELATED CATEGORIZATIONS OF TOYS BY PRESCHOOL CHILDREN: A STUDY ON DESIGN FEATURES

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February 2018, 178 Pages

This study examines the effects of design features of toys on gender-related categorizations of preschool children. Preschool children, who are between the ages of 3-6 years, spend most of their time in play. Play gives children a chance to enhance their development and learning in all domains. Toys as play materials, encourage children to engage in precious play experiences. However there is a clear difference between girls' and boys' play experiences and toy preferences. This difference causes girls and boys to demonstrate advance development in certain areas and lesser development in others. To overcome this and make children experience play with different types of toys, it is important to understand children's thoughts about which toys are for themselves and which are for the other gender. In order to understand children's gender-based categorizations about toys, in this study, a mixed-methodology research is composed. Initially a product investigation was carried out in four major toy stores in Ankara, investigating the types of toys, the age groups they address and their main design features. Based on the argument that variations in these features define whether the toys are girl-specific, boy-specific, gender-neutral or ambiguous, a further research was carried out in order to observe children in a play experience with toys from all four groups. The findings of the study, which is conducted with five girls and five boys, demonstrate that theme,

color and gender of a figure are the most distinctive design features for children to categorize a toy for themselves or not. Moreover, girls and boys have different categorizations about certain design features. With this study children's thoughts about gender-neutral and ambiguous toys are also highlighted.

Keywords: children, gender, play, toys, gender-related design features of toys

ÖZ

OKUL ÖNCESİ ÇOCUKLARIN OYUNCAKLARI CİNSİYET ODAKLI SINIFLANDIRMALARI: TASARIM ÖZELLİKLERİ ÜZERİNE BİR ÇALIŞMA

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Şubat 2018, 178 Sayfa

Bu çalışma oyuncakların tasarım özelliklerinin okul öncesi çocukların cinsiyet odaklı sınıflandırmalarına etkisini incelemektedir. 3-6 yaş arasını oluşturan okul öncesi çocuklar, zamanlarının büyük bir kısmını oyunla geçirmektedir. Oyun çocuklara tüm gelişim ve öğrenme alanlarında kendilerini geliştirmelerine olanak sağlar. Birer oyun aracı olarak oyuncaklar, çocukların değerli oyun deneyimleri yaşamalarına katkıda bulunur. Ancak kız ve erkek çocukların oyun deneyimlerinde ve oyuncak tercihlerinde belirgin farklılık bulunmaktadır. Bu farklılık kız ve erkeklerin belirli alanlarda ileri gelişim göstermelerine, diğerlerindeyse daha az gelişim göstermelerine neden olmaktadır. Bunun önüne geçebilmek ve çocukların farklı oyuncaklarla oyun deneyimi yaşamalarını sağlamak için, çocukların hangi oyuncakların kendilerine göre, hangi oyuncaklarsa karşı cinsiyete ait olduğu hakkındaki düşüncelerini öğrenmek önemlidir. Bu çalışmada çocukların cinsiyet odaklı sınıflandırmalarını anlamak için karma bir araştırma kurgulanmıştır. Ankara'da yer alan dört büyük oyuncakçıda bir ürün araştırması gerçekleştirilmiş, oyuncak türleri, hitap ettikleri yaş grupları ve temel tasarım özellikleri incelenmiştir. Bu tasarım özelliklerindeki farklılaşmanın, oyuncağın kızlara özgü, erkeklere özgü, cinsiyetsiz ya da belirsiz olarak tanımlanmasına neden olduğuna dayanarak, bu dört

gruptan oyuncakların yer aldığı bir oyun deneyiminin gözlemlendiği ileri bir araştırma yürütülmüştür. Beş kız ve beş erkek çocukla yürütülen araştırmanın sonuçları tema, renk ve figürlerin cinsiyetinin çocukların bir oyuncağın kendilere göre olup olmadığını sınıflandırmalarında en etkili tasarım özellikleri olduğunu göstermiştir. Ayrıca kız ve erkek çocukların belirli tasarım özellikleri hakkında farklı sınıflandırmaları olduğu gözlemlenmiştir. Ayrıca çocukların cinsiyetsiz ve belirsiz olarak nitelendirilen oyuncaklarla ilgili düşünceleri de ortaya çıkarılmıştır.

Anahtar Kelimeler: çocuklar, cinsiyet, oyun, oyuncaklar, oyuncakların cinsiyete bağlı tasarım özellikleri

to the most precious,

my mother

ACKNOWLEDGEMENTS

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CHAPTER 1

INTRODUCTION

1.1. Background of the Problem

Early childhood years are the most important period of children for their development and learning. Child development can be defined as the ability of children to do more complex things as they get older (Boyse, 2013). Therefore children's early years of life have significant effects on cognitive, physical, social, emotional and language development and learning. Mustard (2006) mentions that with the help of the children's experiences with the environment in their early life, the neuron functioning in their brain changes and primary neuron pathways are constituted, which will affect individuals' perfection, health and well-being throughout the rest of their lives. Furthermore, it is stated that children who fail to improve their verbal skills in early years of life demonstrate poor language and literacy development in later school life and have the potential to experience antisocial behavior when they become a teenager (Mustard, 2006).

Throughout these early years of life, play is children's main activity and they spend most of their time playing with or without an object. Lindon (2012) defines play as the activities which are engaged in by children from babyhood to early teenage years. Children begin to engage in different forms of play from very early years of childhood. Children's plays with objects appear early in the childhood before social play (Frey & Kaiser, 2011). These objects include toys for children as well as any objects around them. Toys can be defined as any item generally for an infant or child that is used for play (McMahon, 2014). Therefore toys, which are important elements

of children's play, are an inseparable part of early childhood ages for their development and learning.

It should be noted that each play type and toy has specific contributions for children's development and learning. For example while dramatic play and props used in this type of play help children to experience daily life and to practice emotional and social development, in physical play children exercise their fine and gross motor skills. Therefore children are expected to take part in every type of play experiences and play with every type of toys to achieve acquisitions in all different areas of development and learning.

Despite the importance of engaging in various play experiences with various toys to demonstrate sufficient development and learning in all areas, it is clear that there are distinct diversifications in toys in the market and those invite girls and boys to buy and play with different types of them and to experience different types of plays. Playing with only specific types of toys leads girls and boys to engage in restricted play experiences and as a result, they present better developmental abilities in certain developmental areas. For example, Yeh and Hutchison (2012) mention that engaging in play experiences with baby dolls help children to practice their cognitive, fine motor and self-help skills. The fact that boys often present success in self-help and fine motor skills later than girls may be because of the fact that boys play less with baby dolls (Yeh & Hutchison, 2012). Moreover as Marcon and Freeman (1996) mention when development of different skills in children may result in being expertise in different occupations and future roles.

Sweet (2013) mentions that gendered marketing of toys, by using mostly color, increased amazingly in recent years in the international market (as cited in Weisgram, Fulcher & Dinella, 2014). Although, from now on, people become more aware of the gendered toys and their limitations on children's development, the gendered market is still there and children are still exposed to gendered toys. Anyone who enters a toy store, can notice at first sight, the girls' and boys' aisle in the toy store. Labels on toys like color, type and other design features have affect on

children's toy preferences (Weisgram, Fulcher & Dinella, 2014). Similarly Rommes, Bos and Geerdink (2011) state that when the toys are marketed to a sex, they clearly send the message of which toys are for girls and which toys are for boys, and how children can behave appropriately for their gender. Although toys around children are important effect on this differentiation between being a girl and boy, the truth is different. As Grinberg (2015) mentions, although being a female or male brings biological differences from birth, there are much more similarities between women and men, as well as there are in girls and boys.

This thesis suggests that the reasons behind the diversification between the play experiences and toy preferences of girls and boys have become one of the important research topics in the area of child development and learning. It is clear that the culture, where the child grows up in has an important effect on gender-related differences in children's experiences and preferences. However there is still another question to be answered to understand the effects of design features of toys on this diversification between girls' and boys' plays. Recognizing whether the design features of toys affect girls' and boys' play experiences and toy preferences will help the designers to take care of design features in order to make toys address both girls and boys. At that point this effort is devoted to understanding the effects of gender-based design features on girls' and boys' gender-related categorizations by observing preschool children, who are between 3-6 years of age as they demonstrate increasing abilities and understanding in all developmental areas, and interviewing with them during play.

1.2. Aim of the Study

The aim of this study is to understand the effects of the design features of toys on preschool children's gender-related categorizations. Furthermore it is expected to reveal girls' and boys' reasons behind gender-related categorizations of toys and identify the design features that have a role in this. It is hoped that practitioners can benefit from the findings in developing toys that can address the interest of both boys and girls and offer enriching play experiences for both genders.

1.3. Research Questions

In order to fulfill the aim of study, the design features of toys with gender implications will be investigated through the following main research question:

– In which ways do the design features of toys affect the gender-related categorizations of preschool children?

While searching for answers to the main research question, multiple sub-questions will be answered to understand the relation between toys and children's play. The sub-questions related to the main question of the research are:

– What are the developmental characteristics of children between 3-6 years of age?
– How does gender develop in children at this age group?
– What is the importance of play and toys as play materials for this age group?
– What are the types of toys in the market for this age group of children?
– What are the design features that make a toy girl-specific, boy-specific, gender-neutral, or ambiguous?

1.4. Structure of the Thesis

This thesis will focus on the effects of the features of toys on children's gender-based categorizations, as their play is one of the most important activities in their life. Introduction chapter presents the main aim, research questions and gives a brief introduction to the topic.

In Chapter 2, the development and learning of children is the focal point. The theories regarding child development of learning, the milestones of children between 3-6 years of age in different areas of development and learning, the concepts of gender identity and gender roles, the development of gender identity and gender roles, and related theories are the main issues that are covered in this chapter.

In Chapter 3, children and their play is the focal point. Definitions of play, theories regarding play, types of play, the effects of play on children's development and learning in different areas, characteristics of play of children between 3-6 years of age and the differences in girls' and boys' play are the leading topics in this chapter.

In Chapter 4, the focal point is toys of children as they are one the most important things affecting children's play. Importance of toys for children's play, characteristics of toys, types of toys, toys that are for children between 3-6 years of age, gender differences in toy preferences and gender research conducted on children with toys are the major topics that are mentioned in this chapter.

In Chapter 5, conducting research with children is the focal point. Methods appropriate to use in research with children, ethical issues to bear in mind in childhood researches and researches about children's use of play materials are the main issues that are discussed in this chapter.

In Chapter 6, details of a product investigation conducted in toy stores are given. The product investigation is carried out within this study in order to identify the main features of toys found in the market for 3-6 year-old children. This chapter presents the investigation, compares the types of toys and identifies their design features. As a result of this investigation, it has been possible to identify the toys used in the main study.

In Chapter 7, details of the pilot study conducted with a child is explained. The findings and the evaluation of the pilot study are also described. Based on the pilot study, the details of the main study conducted with ten children in a public preschool are explained. The participants, settings, research materials, methodology, procedure, schedule, durations and data collection method are all taken into hand.

In Chapter 8, the results of the analysis of the raw data obtained from the main study are presented. Gender-related categorizations of the participants, their distribution of the accessories to the toy sets, their primary preferences among toy sets to play with,

and the design features affecting the gender of the toy sets and accessories that they mentioned are taken into hand in this chapter.

Finally, in Chapter 9, the outcomes of the literature research and the main study conducted with children are assessed, and the research questions stated at the beginning of the thesis are answered. Furthermore, some implications for the practitioners, evaluation of the methodology, limitations of the study and reccomendations for further studies are described in this chapter.

CHAPTER 2

CHILD DEVELOPMENT AND LEARNING

The field of child development is devoted to understanding the development and learning of children from pre-birth to adolescence in the physical, cognitive, social, emotional and language domains, and is a part of developmental psychology (Berk, 2006). Child development is taken in hand under the broader discipline called developmental psychology, which deals with the changes that people experience throughout their lives (Berk, 2006). Throughout this chapter, theories of child development and learning, the developmental and learning milestones of 3-6 years old children, and issues related to gender identity and gender roles are discussed in depth.

2.1 Theories of Development and Learning

There are many ideas and theories trying to explain systematically how children develop and learn (Puckett *et al.*, 2008). While some of these theories try to explain only one facet of development, other theories are more extensively focused (Puckett *et al*., 2008). In the following sections of this chapter, theories about children's learning and development are taken in hand one-by-one, by explaining their significant characteristics.

2.1.1   Freud's Psychoanalytic Theory

Psychoanalytic theory tries to clarify humans' conscious and subconscious inner thoughts and feelings affecting humans' behavior (Freud, 1938; as cited in Puckett *et al.*, 2008). According to Freud's psychoanalytic theory, the personality of human is made up of the *id*, *ego* and *superego* (Levine & Munsch, 2011). The human is born

with an id, which is the primitive part of the personality and just consists of needs (Bee & Boyd, 2007). When children reach two to four or five years of age, the ego begins to develop, which is the more conscious and managerial part of the personality (Bee & Boyd, 2007). And finally before children start schooling, the superego begins to develop, which is the conscious and moral part of the personality (Bee & Boyd, 2007). Furthermore, Freud thinks that sex drive is the most fundamental drive of the human and brings up the five stages of development, which are called the psychosexual stages (Levine & Munsch, 2011). Psychosexual stages include *oral, anal, phallic, latency* and *genital* stages (Levine & Munsch, 2011). Children between ages three to six are in the *phallic stage*, which is characterized by children's focus on their genital organs (Levine & Munsch, 2011). In this stage boys face with *Oedipus* and girls face with *Electra* complexes which are defined as the pleasure for the opposite and aversion for the same sex parents (Levine & Munsch, 2011).

2.1.2 Erikson's Psychosocial Theory

Erikson (1950) proposes eight psychosocial stages, each of which are characterized by a psychosocial conflict that is needed to be resolved for a healthy development (as cited in Berk, 2006). These stages include *trust versus mistrust*, *autonomy versus shame and doubt*, *initiative versus guilt*, *industry versus inferiority, identity versus role confusion, intimacy versus isolation, generativity versus stagnation* and *integrity versus despair* (Levine & Munsch, 2011). Psychosocial stages of development cover the entire life and signify that development continues throughout the lifespan (Berk, 2006). Children between ages of three to six are in the stage of *initiative versus guilt* in which children are expected to achieve the responsibilities that their parents give and take the initiatives of their actions (Berk, 2006). In this stage, much more control on children's actions by the parents may result in the feeling of quilt.

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2.1.3 Piaget's Cognitive Developmental Theory

According to cognitive developmental theory, children are the builders of their own knowledge by interacting with and exploring the environment around them (Berk, 2006). The concept of *adaptation* constitutes the main focus of the cognitive developmental theory (Piaget, 1971; as cited in Berk, 2006). According to Piaget, children develop their understanding of the environment around themselves by adopting or changing what they come across (Puckett *et al*., 2008). The concepts or categories in children's mind are defined as *schemata*, children's effort in fitting new concepts or ideas into existing schemata is defined as *assimilation* and children's effort in converting existing schemata to learn new concepts or ideas is defined as *accommodation* (Puckett *et al*., 2008). When children achieve the balance between assimilation and accommodation, they reach a comfortable cognitive state, which is defined as *equilibration* (Bee & Boyd, 2007). Furthermore, cognitive developmental theory explains cognitive development in four stages, which are listed as *sensorimotor*, *preoperational*, *concrete operations* and *formal operations* stages (Levine & Munsch, 2011). Children between two to seven years of age are in the *preoperational stage*, which is characterized with children's magical and egocentric thought (Levine & Munsch, 2011).

2.1.4 Vygotsky's Sociocultural Theory

According to Vygotsky (1978b), children's cognitive development is developed by the social world and culture they live in (as cited in Levine & Munsch, 2011). Likewise Puckett *et al*. (2008) mention the importance of cognitive development, which is promoted by social interactions not just by the mind based on sociocultural theory. Vygotsky believes that children's learning begins with their interactions with the people around them (Levine & Munsch, 2011). Vygotsky emphasizes important concepts in his sociocultural theory, which are *zone of proximal development* (Bee & Boyd, 2007) and *private speech* (Levine & Munsch, 2011). *Zone of proximal development* is defined as the gap between what a child can do by himself and with the assistance of a more skilled or knowledgeable person (Levine & Munsch, 2011).

According to Vygotsky, zone of proximal development is expanded and involves more difficult skills as the child continues to develop (Bee & Boyd, 2007). *Private speech* is defined as children's talk with themselves, generally loudly, to transform external interactions into internal thoughts (Levine & Munsch, 2011). According to the study by Berk, Mann and Ogan (2006), children who talk to themselves demonstrate more success in the completion of the given tasks than children who do not talk to themselves (as cited in Levine & Munsch, 2011). Private speech continues with inner form and then it transforms into thoughts, as the child gets older (Levine & Munsch, 2011).

2.1.5   Information Processing Theory

Klahr (1992) states the aim of the information processing theory as explaining the mind's functioning for management of information (as cited in Bee & Boyd, 2007). Theorists explained different models of information processing, which are *store model* and *connectionism* (Berk, 2006). Each of the models tries to explain how the information is taken, how it is stored, how it is remembered, how it is thought and the system that controls and coordinates these tasks (Levine & Munsch, 2011).

Information processing theorists of store model think that the mind resembles a computer, which has three structures functioning different from each other (Levine & Munsch, 2011). In store model, *sensory memory* gets the information coming from the senses of the human for a specific period of time; the information which is not lost, is then sent to *working memory,* in which it is kept for a brief time and then sent to the *long-term memory* where it is kept permanently (Berk, 2006). Information in long-term memory is archived based on contents and can be retrieved by using the web of bundles that are used to store it (Berk, 2006).

In connectionism, there are thousands of simple processing units organized into layers, which together form an artificial neural network (Berk, 2006). A distinctive network consists of three types of layers, which are the *input layer* encoding the task,

hidden layers projecting the information required for the task and the *output layer* bringing a response (Berk, 2006).

2.1.6   Watson's Classical Conditioning Theory

According to the classical conditioning theory, children's behaviors can be shaped by meticulously monitoring the relations between *stimulus* and *responses* (Berk, 2006). As children get older, the number and the strength of these associations increase, which is defined as the continuous development of the human (Berk, 2006). According to classical conditioning theory, the personality, abilities, etc., are mostly determined by the environment the child lives in (Levine & Munsch, 2011). In classical conditioning, an *unconditioned stimulus*, which brings an *unconditioned response*, is paired repeatedly with a *neutral stimulus* and after a while the neutral stimulus itself brings the *conditioned response* (Levine & Munsch, 2011). With this theory of classical conditioning, it is thought that the behaviors of children can be revealed, eliminated and modified.

2.1.7   Skinner's Operant Conditioning Theory

In operant conditioning, the consequences that behaviors bring are used to increase or decrease the frequency of that behavior (Bee & Boyd, 2007). According to operant conditioning theory, the consequences of behaviors are *positive reinforcement*, *negative reinforcement* and *punishment* (Levine & Munsch, 2011). Reinforcements strengthen the occurrences of behaviors; while *positive reinforcement* is defined as presenting a pleasant or satisfying consequence after the behavior takes place, *negative reinforcement* is defined as taking away the unpleasant or threatening impulse after the behavior takes place (Puckett *et al*., 2008). On the other hand, *punishment* decreases the occurrences of the behavior, which is defined as the removal of a pleasant impulse or presenting an unpleasant consequence after the behavior takes place (Bee & Boyd, 2007). According to Skinner (1979), reinforcements are more powerful to shape behaviors than punishments (as cited in Puckett *et al*., 2008). Skinner states the crucial importance

of operant conditioning in influencing human development (as cited in Bee & Boyd, 2007).

2.1.8 Bandura's Social Cognitive Theory

According to Bandura (1986), instead of being reinforced from the environment, behaviors are learned by people's observation of the others (as cited in Levine & Munsch, 2011). While observing constitutes the social part of his theory, the process of learning makes up the cognitive part (Levine & Munsch, 2011). Based on social cognitive theory, *imitation of others* is the central source of development (Berk, 2006). According to Bandura, children make more fastidious selection of behaviors to imitate as they become older (Berk, 2006). Bandura also emphasizes a different kind of reinforcement, *intrinsic reinforcement*, which is defined as the children's own inner feelings after they present a behavior (Bee & Boyd, 2007). Bandura, Caprara, Barbaranelli, Pastorelli and Regalia (2001) mention the importance of *self-efficacy* in shaping children's functioning, which is a concept defined as children's belief of their own power in affecting their life (as cited in Levine & Munsch, 2011).

2.2 Development and Learning between Ages 3-6

Children between ages three to six demonstrate increasing abilities and understanding in physical, cognitive, social, emotional and language development. In the following sections, children at these ages will be taken in hand in each area of development by explaining their specific abilities.

2.2.1 Physical Development between Ages 3-6

Physical development includes children's abilities to perform gross and fine motor skills (Bee & Boyd, 2007). According to Frost, Wortham and Reifel (2008) children between ages two or three to six or seven are in the *fundamental movement phase*, in which they demonstrate increasing control over gross and fine motor skills. On the other hand, although children's gross and fine motor skills continue to develop at every age, gross motor skills develop earlier than fine motor skills (Bee & Boyd,

2007). Puckett *et al.* (2008) state that when muscles needed for gross motor skills are coordinated, then muscles of extremities become more sufficient to operate and children gain the ability to perform skills requiring fine motors. As Bee and Boyd (2007) mention, while children who have reached six years of age are not fully able to use a pencil or scissors, they are good at running, hopping, skipping, jumping and climbing. According to Frost, Wortham and Reifel (2008) children at these ages firstly learn and use these skills isolated from other skills, then combine them with each other and move from *initial* and *elementary stages* of development in skills into *mature stage*. According to Puckett *et al.* (2008), children need to be mature in *prehension*, which is the children's ability to grasp and leave off an object, and *dexterity*, which is the children's ability to move and coordinate their hands and fingers precisely and quickly, to achieve fine motor skills. Bee and Boyd (2007) state that when children start elementary school, they demonstrate increasing abilities in fine motor skills like writing, cutting, and playing instruments.

2.2.2 Cognitive Development between Ages 3-6

Children between ages two and four years demonstrate success in categorizing similar objects based on certain characteristics (Berk, 2006). Children between four and seven years become able to understand that appearance can be different from reality (Berk, 2006). According to Feldman (2012) children between these years of age begin to show an increasing attention period, think symbolically and intuitively, develop memory, and so on. Moreover children between three to six years of age show egocentric thought and are able to think from only one point of view (Feldman, 2012).

2.2.3 Social Development between Ages 3-6

According to Frost, Wortham and Reifel (2008), children between three to six years of age begin to understand that they are individuals and parts of a social world. They begin to demonstrate more autonomy in their relationships with parents and friends (Frost, Wortham & Reifel, 2007). Bee and Boyd (2007) mention that children

between three to four years of age begin to engage in play activities with their peers rather than playing alone. Similarly, Puckett *et al*. (2007) state that children at ages four and five demonstrate an ascending ability in associative and cooperative play, which are characterized by preference of children to engage in activities and collaboration with their peers. As a result, when children reach age three, they begin to prefer particular peers as playmates and friendships flourish (Levine & Munsch, 2011). According to Dunn (2004), although children at this age are instable, their friendships may survive several months or years (as cited in Levine & Munsch, 2011). Likewise Dunn (1993) and Howes (1996) state that the majority of friendships of these ages last six months or longer (as cited in Bee & Boyd, 2007). The friendship of these years old children are based on, as Epstein (1989) states, the closeness to each other, the activities and toys they share and physical appearances, moreover as Dietrich (2005) states, congruent style of play, knowledge and interests (as cited in Puckett *et al*., 2008).

2.2.4 Emotional Development between Ages 3-6

Being able to feel or experience happiness, anger, fear, sadness, excitement constitutes emotional development of children (Hoorn, Nourot, Scales & Alward, 2007). Their emotional development also includes their ability to control and adjust their emotions and how they express their emotions to others (Hoorn, Nourot, Scales & Alward, 2007). Puckett *et al.* (2008) mention that there are some important emotional milestones that children of early ages need to achieve including labeling, understanding and modulating emotions. Similarly, Frost, Wortham and Reifel (2008) mention that children between three to six years of age become aware of their emotions and begin to regulate them. Equally, according to Puckett *et al.* (2008), when children reach four to five years of age, they become aware of others' emotions, besides their own. Children between four and five years of age continue to keep a transitional object like a blanket or stuffed animal with them (Puckett *et al*., 2008). This object helps children to feel in comfort in early months and years of life (Hobara, 2003). Children who have a transitional object usually become emotionally

attached to it and by hugging it they fall asleep and cope with despair (Hobara, 2003).

2.2.5   Language Development between Ages 3-6

There are various factors affecting children's development of language, however the most important factor may be children's interactions with their parents and caregivers (Puckett *et al*., 2008). Puckett *et al*. (2008) mention that there are some studies demonstrating the importance of quality and quantity of interaction of children with their parents for their language development. When children reach three years of age, they become able to form sentences including multiword (Levine & Munsch, 2011). Moreover, Levine and Munsch (2011) state that children at these ages begin to use tenses in their sentences. Children of around four years of age begin to use conjunctions in their sentences (Puckett *et al*., 2008). Similarly, Berk (2006) mentions that children between three-and-a-half to six years of age use more complex forms of sentences and use various rules in sentences. Likewise Bloom *et al*. (1980) state that children use general and more specific conjunctions in their sentences at these years of age (as cited in Berk, 2006). The use of passive forms in speeches also begins between four to five years of age (Puckett *et al*., 2008). When children are six to seven years old, their vocabulary includes nearly 14.000 words (Clark, 1983; Templin, 1957; as cited in Puckett *et al*., 2008).

Although children present great improvement in language development, they continue to use egocentric speech between three to six years of age (Levine & Munsch, 2011). Piaget (1973) explains egocentric speech as the children's inability to take care of others' perspective and position in their speeches (as cited in Levine & Munsch, 2011). Children at three years of age continue to use private speech, which is talking to oneself, however this speech is more silent than before (Levine & Munsch, 2011).

2.3 Gender Identity and Gender Roles

Children's understanding of gender requires many tasks that children need to achieve (Bee & Boyd, 2007). Starting from very early stages of development children begin to deal with and understand gender issues including understanding what gender is, how gender is identified, whether gender is constant and what the gender roles are.

2.3.1   The Development of Gender Identity

Bee and Boyd (2007) state that children's understanding of gender is called *gender concept*, which is the cognitive side of gender development. There are many researches showing that children begin to differ males and females from the very early stages of life (Bee & Boyd, 2007). Shirley and Campell (2000) state that children are able to categorize people as male and female from photos from three months of age (as cited in Bee & Boyd, 2007). Children become aware of gender and categorize themselves and others as being a boy or girl, however they still do not understand that gender is constant when they reach three years of age (Puckett *et al*., 2008). Similarly, by using the cues of clothing and hair length, Ruble and Martin (1998) signify that children between two to three years of age are able to label the pictures as boy and girl (as cited in Bee & Boyd, 2007).

Kohlberg (1966) mentions that children between five to seven years of age become aware that gender does not change although changes take place physically, emotionally and so on (as cited in Puckett *et al*., 2008). As Eaton and Von Bargen (1981) state *gender constancy* development follows a pattern (as cited in Puckett *et al*., 2008). The child firstly understands that his/her gender is constant, then s/he attributes gender constancy to same-sex others and then to people of the opposite sex (Puckett *et al*., 2008). Children are able to grasp the understanding of gender constancy when they become aware that there are some genital differences and these differences indentify people as being a boy and girl (Bem 1989; as cited in Bee & Boyd, 2007). Berk (2006) mentions that children's understanding of gender constancy is related to their ability to differ *appearance* from *reality*, which is

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defined as, that an object may look like a way but may be something else for example a candle in the form of a crayon. According to Trauther, Gervai, and Nemeth (2003) children need to distinguish what a person looks like from what really s/he is, to solve the appearance-reality problem of gender (as cited in Berk, 2006).

2.3.2 The Development of Gender Roles

Children's understanding of the appropriate behaviors attributed to each gender is called *gender role,* which is the social side of gender development (Bee & Boyd, 2007). Studies show that children of ages three to four are able to attribute different occupations, toys and activities to males and females (Ruble & Martin, 1989; Signorella, Bigler & Liben, 1993; as cited in Bee & Boyd, 2007). Berk (2006) states that when children become able to label people as boys and girls, they begin to explain them in terms of specific behaviors and activities, which leads to development of gender stereotypes. According to Martin (1993), and Serbin, Powlishta and Gulko (1993), when children reach five years of age, they start to pair certain personality characteristics to males and females, and when they reach eight to nine years of age, this ability is well developed (as cited in Bee & Boyd, 2007). Children of these years of age are faithful about their gender-stereotyped beliefs so that they think these are definite rules and cannot be changed (Berk, 2006).

2.3.3 Theories of Gender Development

There are different explanations for children's development of gender roles. These theories include *psychoanalytic theory*, *social learning theories*, *cognitive developmental theory* and *gender schema theory*.

2.3.3.1 Psychoanalytic Theory

According to the *psychoanalytic theory*, children at age six leave the *phallic stage* of development and start to develop gender identity (Levine & Munsch, 2011). According to Freud, in the phallic stage, boys experience *Oedipus* crisis and girls

experience *Electra* crisis (Levine & Munsch, 2011). These crises are explained as children's competition with same-sex parents and possession of opposite-sex parents (Levine & Munsch, 2011).

2.3.3.2 Social Learning Theories

According to the *social learning theory*, children are exposed to gender-role stereotypes from their parents, adults and media (Bee & Boyd, 2007). Levine and Munsch (2011) mention the significance of the concept of imitation for the social learning theory. Imitation is defined as children's display of various gender roles and activities to imitate every day life (Levine & Munsch, 2011). Bandura (1977) and Mischel (1966) state that children's gender role behaviors and attitudes are directly reinforced (as cited in Bee & Boyd, 2007). Similarly, Levine and Munsch (2011) mention that behaviorists believe that gender identity is shaped by direct and indirect reinforcement. Parents reinforce their children's gender roles by both buying gender stereotyped toys for boys and girls and by demonstrating positive attitude towards the children when they play with gender stereotyped toys (Bussey & Bandura, 2004; Fagot & Hagan, 1991; Lytton & Romney, 1991; as cited in Bee & Boyd, 2007). The social learning theory fails to explain why children of parents who seem to behave highly similar to both boys and girls, are still aware of gender labels and present gender stereotyped behaviors (Bee & Boyd, 2007).

2.3.3.3 Cognitive Developmental Theory

Kohlberg (1966) states that children's understanding of gender develops through stages as they develop cognitively (as cited in Levine and Munsch, 2011). According to Kohlberg, the stages of gender development include *gender identity*, *gender stability* and *gender constancy* (as cited in Berk, 2006). In the stage of gender identity, the children categorize themselves and others as a boy or a girl (Berk, 2006). In the gender stability stage, children understand that gender is stable over time however it can be changed by the style of clothing, hair and stereotyped activities (Fagot, 1985b; Slably & Frey, 1975; as cited in Berk, 2006). Finally, in the

stage of gender constancy, children understand the biological facets of gender and become aware that gender remains the same although there may be changes in clothing and hairstyle (Emmerich, 1981; McConaghy, 1979; as cited in Berk, 2006). According to Kohlberg, children start to imitate same-sex adults only after their understanding of gender constancy is developed (Bee & Boyd, 2007).

2.3.3.4 Gender Schema Theory

The *gender schema theory* explains gender development with an information-processing approach where social learning and cognitive developmental features are shuffled (Berk, 2006). As Levine and Munsch (2011) explain, besides the understanding of being a boy and girl, a gender schema nestles gender related behaviors, roles, abilities and occupations. According to Bee and Boyd (2007), children who have reached 18 months of age start to develop the gender schema when they become able to differ male and female. Moreover when children reach two to three years of age the gender schema is usually well developed (Bee & Boyd, 2007). Levine and Munsch (2011) mention that, based on their own understanding of gender, adults make a contribution to the children's development of gender schema through their interactions with children and interpretation of children's behaviors. Likewise Bee and Boyd (2007) explain that, by buying different toys or clothes to children, or by calling children as boys and girls, adults reflect the significance of being a boy and girl to the children and this leads to the very early form of gender schema. According to Martin and Little (1990), when the *early schema* is established, children assimilate various experiences to this schema, as they prefer same-sex peers and gender-stereotyped activities (as cited in Bee & Boyd, 2007).

2.4 Discussion

As discussed in this chapter, there are numerous theorists of child development and learning bringing explanations on how children learn and develop with different perspectives. While some of the theorists explain intrinsic motivations behind the development of children, others emphasize the importance of the social world. In

summary, when the development and learning of children between three to six years old are analyzed, it is seen that they have enhanced gross and fine motor skills, they are able to focus for longer durations, they can think symbolically, they become more social beings, they are more able to regulate their emotions and they present important perfection in language development. About gender development, children between three to six years of age are aware of their and others gender however through the end of this period they are able to understand that the gender is constant and will not change. The development of gender identity brings along the understading of specific gender roles belonging to specific gender. Children at about three to four, develop some gender-stereotypic thoughts about occupations, toys and activities.

CHAPTER 3

CHILDREN AND PLAY

Play is the business of children. Children may engage in play activities any time, anywhere and with anything or nothing but just themselves. Bock and Tudge *et al.* state that children in almost all parts of the world engage in play as their routine everyday activity (as cited in Roopnarine, 2011). Throughout this chapter, definitions of play, theories of play, types of play, the relationship between each developmental domain and play, and gender differences in play will be taken into hand in detail.

3.1 Definitions of Play

Else (2009) states that it is really difficult to define play, because of its nature that nestles various characteristics and facets. Similarly, Hughes (2009) mentions that not a single definition can be enough to explain play and distinguish play from other activities such as work. According to Else (2009) play is an activity determined to engage in by the individual for its pleasure. Similarly, according to Rubin, Fein and Vandenberg (1983) an activity can be defined as play if the child is intrinsically motivated and actively engaged in and if the activity is freely chosen, pleasurable and nonliteral (as cited in Hughes, 2009), which define the essential characteristics of play. Burghardt (2005) mentions that play must be a behavior that is voluntary, repeated, different from serious behaviors, requires readiness, health and feeling of safety, and does not need to be functional (as cited in Pellegrini, 2009). Similarly, Sherwood and Reifel (2010: 17) list the characteristics of play as being child-determined, creative and imaginative, fun, less serious, physically active, socially interactive, less academic, uncertain, affective, viewed as a reward, passive learning, not driven by externally driven rules, relaxing, positive, valuable and based on the

child's perspective (as cited in Fleer, 2013). Moreover instead of the end, the process is seen more important in play (Martin & Caro, 1985; Rubin, Fein & Vandenberg, 1983; Pellegrini & Bjorklund, 2004; Pellegrini *et al*., 2007; Power, 2000; as cited in Bjorklund & Gardiner, 2011). Therefore it is clear that there is no specific definition for play, instead many different characteristics and requirements are attributed to children's play.

3.2 Theories of Play

There is a wide variety of theories about children's play. Some early theorists explain play in terms of its physical benefits. According to Spencer (1873) all living things have a certain amount of energy to survive and this energy needs to be discharged (as cited in Hughes, 2009). Spencer (1873), in his *surplus energy* theory of play, states that children play because they need to get rid of the excess amount of energy they have and without having any aim, play helps them to release this energy (as cited in Fleer, 2013). Lazarus (1883), in the *relaxation and recreation* theory of play, explains play as an activity to help children relax, refill their energy and become ready to work again (as cited in Fleer, 2013). Similarly, Patrick (1916) in his theory of *renewal of energy,* explains play as an activity to help children get fun and restore their energy (as cited in Hughes, 2009).

On the other hand, there are many contemporary theorists including Vygotsky, Piaget, Bruner and Parten, who state the importance of play for enhancing children's development and learning (Scarlett *et al*., 2005). According to Vygotsky (1978), play helps children to take part in combined activities, interact with each other, use language and symbols, harness the power of own interest, create problems and solve them, all of which are the elements of the theory of *Zone of Proximal Development* (as cited in Olusoga, 2008). Vygotsky explains his theory as the gap between what the children succeed alone and what the children succeed with the assistance of an adult (Howard & McInnes, 2013). For Vygotsky (1978), play helps children to go beyond their current abilities of thinking and to take one more step up (Howard & McInnes, 2013). Moreover Vygotsky states that while engaging in imaginative play,

children get out of the limitations of reality and try out new roles and ideas (Howard & McInnes, 2013).

According to Piaget (1962, 1983) all living things need to adapt to their environment in order to survive and this can be succeeded through *assimilation* and *adaptation* (as cited in Hughes, 2009). For Piaget, without both of those, children will not be able to develop, neither physically nor intellectually (Hughes, 2009). Piaget states that while playing assimilation governs accommodation, that is, the things children recently learn are united with existing ones (Hughes, 2009). For Piaget, first-hand experiences provide best opportunities for children to learn and develop (Howard & McInnes, 2013). Furthermore Piaget (1951) suggests three stages of play, which are *practice play*, *symbolic play* and *games with rules* (as cited in Sheridan, Howard & Alderson, 2011). Children between birth to two years of age are in *practice play* stage, where they discover themselves and the world around them by using their senses and they repeat their play regularly (Sheridan, Howard & Alderson, 2011). Children between two to seven years of age are in *symbolic play,* where pretend play and make believe play begin to develop (Sheridan, Howard & Alderson, 2011). Finally children between seven to eleven years of age are in *games with rules* stage, where they begin to play according to certain rules (Sheridan, Howard & Alderson, 2011).

According to Bruner (1982), the development of play, therefore the development of children, can be succeeded with the support of more skilled partners such as adults for children to take part in play (as cited in Scarlett *et al*., 2005). Bruner explains this view with his theory of *scaffolding* (Scarlett *et al*., 2005).

According to Parten (1932), as children become older their play involves more social aspects (as cited in Sheridan, Howard & Alderson, 2011). She proposes six stages of play as *unoccupied play*, *solitary play*, *onlooker play*, *parallel play, associative play* and *co-operative play* (as cited in Sheridan, Howard & Alderson, 2011). In *unoccupied play*, children are not really playing but just observing and exploring anything happening around; in *onlooker play*, children observe other children in playing, sometimes talk with them but do not attend their play; in *solitary play*,

children play alone and do not attend the plays of others; in *parallel play*, children play near other children but do not play with them; in *associative play*, children play with each other but there may not be sharing of purposes of play; in *cooperative play*, children play with each other and they share play purposes and roles (Frost, Wortham & Reifel, 2008). Frost, Wortham and Reifel (2008) state that these stages of play by Parten, helps in understanding children's progress from playing alone to playing socially as they develop.

3.3 Types of Play

There are many different types of play, some of which requiring physical skills, some of which requiring social skills, and so on. It is required to identify different types of play to examine and define different behaviors children present while playing (Else, 2009). Although there are various categorizations of play, in this section, a basic categorization, in which leading types of play that 3 to 6 years old children engage, including pretend play, locomotor play, and rough and tumble play, will be presented.

3.3.1   Pretend Play

According to Else (2009) pretend play is children's personating of someone else with its personal, social, domestic and interpersonal nature. Likewise Pellegrini (2009) defines pretend play as children's acting out behaviors of someone else and assuming his roles. According to Cohen *et al*. (2008), while engaging in pretend play, children have a chance to try out what they wish for, imagine, aspire and worry about. There are some other terms referring to pretend play including dramatic play, make-believe play and symbolic play (Pellegrini, 2009). When children start to engage in dramatic play with other children or adults then it is defined as socio-dramatic play ("Learning and Developing Through Play", n.d.). Socio-dramatic play allows children to make friends and practice their language skills ("Learning and Developing Through Play", n.d.).

3.3.2 Locomotor Play

Else (2009) explains locomotor play as children's moving in any and every direction for its own sake. Children running around, chasing each other and climbing are seen as engaging in locomotor play (Pellegrini, 2009). Locomotor play is sometimes referred to as physical activity play because of the fact that it nestles many physical components (Pellegrini & Smith, 1998; as cited in Pellegrini, 2009). While engaging in locomotor play, children use their legs, arms, hands and feet, which will help them to practice gross and fine motor skills.

3.3.3 Rough and Tumble Play

Rough and tumble play is a play type including two or more players harmlessly physically touching and tickling each other (Else, 2009). Similarly, Jarvis (2008) explains this play type as nestling physical behaviors like chasing, jumping and fighting, where children have no negative feelings against each other. Children fighting playfully, chasing each other or wrestling are engaging in rough and tumble play (Else, 2009).

3.3.4 Constructive Play

Constructive play is defined as play where children reveal something by using small pieces which can be bricks, blocks and so on. (McCleaf Nespeca, 2012). It is an organized play where children thoughtfully progress and reach a goal at the end (Burman, 2012). Constructive play helps children develop many skills. According to McCleaf Nespeca (2012), this type of play allows children to freely express themselves, practice large and fine motor skills, help them create coordination between their eyes and hands, and engage in teamwork and collaboration.

3.3.5 Games with Rules

Games with rules include plays where children have to follow some particular rules to take part in. In such games language becomes an important element so that

children can determine the rules with the help of explanations and negotiations ("Learning and Developing Through Play", n.d.). While children engage in this type of games, they practice skills in following rules, taking turns and push some egocentric needs ("Games with Rules", n.d.).

3.4 Play and Child Development

Levine and Munsch (2011) state that play serves various benefits for the development of children as a whole. According to Else (2009) play helps children to develop and learn in longer periods of time and enhances children's feeling of self, health, amusement, and relations with others. Play starts to nestle thoughts, feelings, physical activeness, creativeness and friendships, while children are growing, and those will help children to develop socially, emotionally and physically (Else, 2009). Throughout this section, the effects of play on each of the five areas of development will be taken in hand.

3.4.1   Play and Cognitive Development

According to Ellis (1973) and Piaget (1962), children develop and learn cognitively as they play (as cited in Frost, Wortham & Reifel, 2008). Similarly, Else (2009) states that when children play more, their brain becomes bigger and they can make more connections. Moreover, Else (2009) mentions that when children reach around 5 years of age, this capacity of brain decelerates. According to some researches, children rather spend time in sociodramatic play demonstrating improved development in the intellect (Frost, Wortham & Reifel, 2008). There are many researchers studying the relationship between play and problem solving abilities of children (Hughes, 2009). Likewise Power (2000) states that while children are engaging in play, they improve their creativity, memory, attention, perception, problem-solving skills, logical operations and so on (as cited in Scarlett *et al*., 2005). Furthermore, researches demonstrate that more participation in pretend play results in higher scores on tests about imagination and creativity (Frost, Wortham & Reifel, 2008). According to Sheridan, Howard and Alderson (2011), while children are

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playing, they have a chance to learn about objects, concepts and ideas. Moreover they improve their problem-solving abilities and they use an object to stand for something else, leading to more complicated ways of thinking (Sheridan, Howard & Alderson, 2011).

3.4.2   Play and Social Development

Levine and Munsch (2011) state that the relationship between children and their parents during play activities, positively affects children's endowment in interactions with other children. Instead of playing alone, children engage in more social play activities with their peers as they become older (Hughes, 2009). Similarly, Else (2009) states that although children like to play solitary when they start to walk and talk, they want to play with other children. Haight and Miller (1992) mention that when children reach 3 years of age, they begin to play with their peers instead of playing with their parents (as cited in Levine & Munsch, 2011). Moreover interactions with their peers take place mostly while children are playing with each other (Hughes, 2009). According to Fein and Kinney (1994), make-believe play has positive effects on children's friendliness, popularity, expressiveness, cooperativeness, and creativity, and children demonstrate less aggressive and impulsive behaviors (as cited in Scarlett *et al.*, 2005). Levine and Munsch (2011) state that for young children a friend is someone who likes to play with them, therefore friendships are formed through play.

3.4.3   Play and Physical Development

According to Levine and Munsch (2011), physical development of children is directly influenced by play in various ways. While playing children practice their gross and fine motor skills as they jump, run, grab, and so on. According to Frost, Wortham, and Reifel (2008), it is especially outdoor play, which is reconciled with physical exercise. Both free play and adult directed play, and sports activities, contribute to children's physical development (Frost, Wortham & Reifel, 2008). On the other hand Myers (1985) states that children demonstrate more motor behaviors

in free play when compared to structured physical activities (as cited in Frost, Wortham & Reifel, 2008). Else (2009) states that children explore their bodies and find out operations of their bodies through playing. Play supports children's muscular development, stretches their tendons and enhances their understanding of the body (Else, 2009).

3.4.4 Play and Language Development

According to Frost, Wortham and Reifel (2008), two different points should be considered when the relationship between play and language development is being examined; children's play with language, and children's use of language in play. Playing with language is explained as infants' play with sound and toddlers' and preschoolers' play with speech (Frost, Wortham & Reifel, 2008). Pellegrini (1984) states that children's discovery and manipulation of various facets of language system are defined as they play with speech (as cited in Frost, Wortham & Reifel, 2008). According to Cazden (1974) by playing with language, children understand the rules that the language nestles and discover the elements of the language (as cited in Frost, Wortham & Reifel, 2008).

As it is mentioned earlier, besides children's play with language, children's use of language during play is another topic of language development and play. Frost, Wortham and Reifel (2008) mention that cooperation in play is succeeded by language as telling jokes, singing songs and using rhymes. Children frame play activities, fulfill roles in play and talk about play with the help of language, which makes the play itself a social activity (Frost, Wortham and Reifel, 2008).

3.4.5 Play and Emotional Development

Hoorn, Nourot, Scales and Alward (2007) mention that when children are playing they perceive joy and sense of affection, which will affect their emotional development. According to Hughes (2009), with the help of play, children's attachment with their parents gain strength and the attachment process is facilitated

during the first year of life. While children are playing in fantasy, they solve out the conflicts of real life that make them feel helpless (Levine & Munsch, 2011). Furthermore, while playing, children express emotions like anger, which may be unthinkable in real life (Levine & Munsch, 2011). Lindsey and Colwell (2003) mention that children who engage in fantasy play frequently have an improved understanding of emotions of self and others (as cited in Levine & Munsch, 2011). Furthermore Haight *et al*. (2006) state that children can express their emotions and deal with them through playing, however when having severe emotional difficulties, they may not be able to play (as cited in Levine & Munsch, 2011).

3.5 Play Characteristics of Children between Ages 3-6

Children between 3 and 5 years of age engage in more social play but they are still practicing managements in waiting for turns, discussing, respecting group rules and they are willing social acceptance (Howard & McInnes, 2013). Likewise those children demonstrate behaviors like sharing, waiting for their turns, and cooperation, which make them interact more with others (Hughes, 2009). Children between 3 and 5 years of age, engage in a wide variety of sensory, physical, role-playing, drawing and art activities (Howard & McInnes, 2013). Similarly, according to Scarlett *et al*. (2005), role-playing is the dominant activity in early childhood years. Likewise, Hughes (2009) states that children become much more imaginative by 3 years of age and they demonstrate more interest in the things that adults do. As a result, children of that age often engage in role-playing, during which they have a chance to behave like adults (Hughes, 2009). According to Howard and McInnes (2013), children pay more interest in the process of the play rather than the final product of the play.

When children reach 4 years of age, they become more self-confident and mature in many physical activities (Hughes, 2009). With this self-confidence and maturity, they engage in more complicated play activities and demonstrate some risky and dangerous behaviors in their plays (Hughes, 2009). Moreover children of 4 years of age are more product-oriented in their plays than are children of 3 years of age (Hughes, 2009).

When children reach 5 years of age, they begin to have more realistic thinking, which also affects their play activities (Hughes, 2009). In dramatic play activities, children want to use the whole costume to pretend to be someone else; ordinary objects do not satisfy children of these years (Hughes, 2009). Furthermore Hughes (2009) states that beginning from 5 years of age, children begin to give up engaging in make-believe play activities.

In the play of children between 3 to 6 years of age, although there may be some rules that govern what they do at that time in play, the rules may change in another episode of play (Smith, Cowie & Blades, 2003). When children reach six or seven years of age, they begin to take part in more games that are governed by particular rules like hopscotch, hide-and-seek and basketball (Smith, Cowie & Blades, 2003). Likewise Howard and McInnes (2013) mention that children between 5 to 7 years of age like to engage in board games and structured group games as they begin to understand and follow rules; however they still sometimes bend the rules of the game. Similarly, according to Smith, Cowie and Blades (2003), the rules of the games of these years of age are not versatile to change as in the plays of children of younger ages. Children between 5 to 7 years of age demonstrate preferences in attending new sport games as they now understand their own physical capabilities and like to take risks and challenge (Howard & McInnes, 2013).

3.6 Gender Differences in Play

There are many researches demonstrating differences between boys' and girls' play all around the world (Frost, Wortham, & Reifel, 2008). According to Mayes, Carter and Stubbe (1993) and O'Brien and Huston (1985), it is known that while playing with specific toys behaviors of girls differ from behaviors of boys as early as 18 months of age, which will continue throughout childhood (as cited in Cherney *et al.*, 2003). There are many issues that researchers study, about children's play differences including the roles in children's play, their playmates, play patterns, toys preferences, parents' responses to play of children and so on (Frost, Wortham, & Reifel, 2008). Similarly, Cherney *et al.* (2003) refer that exploratory behaviors, type

of pretend play engaged in, and the level of complexity in play, differ in the play of girls and boys.

According to the study by Hines and Kaufman (1994), when children have the possibility to choose toys to play, they repeatedly select toys associated with their gender (as cited in Sheridan, Howard & Alderson, 2011). Boys and girls begin to demonstrate different behaviors from very early years of age. Children between 18 months and 3 years of age are able to categorize themselves and others as being a boy or a girl, and once they categorize, they reflect their understanding of sex into their activities and behaviors (Berk, 2006). According to Scarlett *et al*. (2005), play is extremely affected by the gender of children. According to Olusoga (2008), children understand the concept of gender and roles of gender in the community and mirror their understanding into their play.

The reason behind boys' and girls' different preferences of play materials and activities are still not clearly understood (Hughes, 2009). According to Miller, Trautner and Ruble (2006), *learning theory*, *cognitive-developmental theory* and *biological theory* explain boys' and girls' different preferences of play materials and activities from different points of view (as cited in Hughes, 2009). While boys prefer to engage in play with trucks and engage in war play, rough-and-tumble play and physically active games that are competitive (Meany & Beatty, 1985; Rubin, Fein & Vandenberg, 1983; as cited in Scarlett *et al*., 2005), girls prefer to play with crafts and engage in role-playing with domestic props and physical games that are not competitive (Scarlett *et al*., 2005). Likewise Campbell and Eaton (1999) and Eaton and Enns (1986) mention that boys engage in more physical play than girls and show more active behaviors (as cited in Alexander & Hines, 2002).

According to Martin, Fabes and Hanish (2011) children have a tendency to choose same sex peers to interact with. Similarly, Maccoby (1998), and Pitcher and Hickey-Schults (1983) mention that 3,5 years-old children play with their same sex peers (as cited in Scarlett *et al*. 2005). Likewise according to Berk (2006) children at 4 years of age engage in activities with their same sex peers three times more when

compared with other sex peers. When children reach 6 years of age, this ratio becomes 11 times more with the same sex peers than with the other sex peers (Maccoby & Jacklin, 1987; Martin & Fabes, 2001; as cited in Berk, 2006). On the other hand Levine and Munsch (2011) mention that children prefer same sex peers to play with, mostly in areas where there are many children they can play with such as at schools. Thorne (1994) states that children may engage in groups of mixed gender if they play in the neighborhood or at home (Levine & Munsch, 2011). Martin and Fabes *et al*. (2003), Howes (1988) and Synder *et al*. (1996) state that children rather follow directions in play, spend longer periods of time and use more positive reinforcement while playing with same sex peers than with opposite sex peers (as cited in Martin, Fabes & Hanish, 2011).

According to Else (2009), while girls prefer to play in smaller groups less actively, boys engage in games with balls or games in which they chase each other and run around. Likewise, while boys engage in more outside play and run around, girls prefer to play in pairs or smaller groups and play in house, school or near house (Benenson, 1994; Gottman, 1986; as cited in Bee & Boyd, 2007). According to Maccoby (2002), while children playing in large groups cooperate and compete with each other; children in smaller groups interact intimately with each other and pay attention to the needs and feelings of each other (Levine & Munsch, 2011). Moreover, while boys enter into girls' space without permission, they occasionally take part in games of girls; whereas girls do not enter into boys' space, and they take part in boys' games more often (Else, 2009). However it is stated by Scarlett *et al*. (2005) that children do not present greatly different levels of development as they both show creativeness and playfulness.

Furthermore there are some studies that display differences in the interaction of mothers and fathers with their children. Sun and Roopnarine (1996) state differences between mothers' and fathers' interactions with their children; while mothers' interaction nestles mostly intimate communications, fathers mostly interact with their children physically (as cited in Sheridan, Howard & Alderson, 2011). Moreover,

Sheridan, Howard and Alderson (2011) highlight the effect of the gender of child on interaction style of parents. Likewise Jacklin, DiePie and Maccoby (1984), and MacDonald and Parke (1986) mention that more physical play experiences occur between fathers and sons than between fathers and daughters (as cited in Lindsey & Mize, 2001). Langois and Downs (1980) state that pretend play is mostly engaged between mothers and children and Tamis-LeMonda and Bornstein (1991) state that this child is generally the daughter (as cited in Lindsey & Mize, 2001).

3.7 Discussion

It is clear that play has important effects on children's development and learning in different areas. Play helps children to enhance their creativity, perception, attention and other cognitive skills; to practice friendship, taking part in social world and other social skills; to improve skills that require gross and fine motor development; to discover and use language; and to understand both their and others' emotions. Children between 3 to 6 years of age engage in various types of physical, social and cognitive play experiences like pretend play, locomotor play, rough and tumble play, construction play and games with rules. Moreover it is understood that there are some differences between girls' and boys' plays in terms of their experiences, preference of play materials, degree of complexity in play and their choice of playmates.

CHAPTER 4

TOYS AS PLAY MATERIALS

4.1. Importance of Toys for Children's Play

Goldstein (2003) states that it is play that immediately helps children to learn and develop and it is toys that trigger and progress the play. Blakemore and Centers (2005) mention that toys present significant functions in young children's lives. Toys foster children to engage in pretend play and play activities with other children as well as to improve their cognitive skills (Blakemore & Centers, 2005). Likewise Hoorn, Nourot, Scales and Alward (2007) mention that toys are materials helping children to improve their imagination and skills with communication. Moreover, according to Hughes (2009) children's toys should encourage their creativeness, sociability and interest in role-playing, for instance, clothes, dramatic play props, toy trucks, and dolls.

4.2. Characteristics of Toys

Toys have various characteristics to be analyzed, including size and shape, number of parts, interlocking parts, material, motor skills required, color, cause and effect, sensory elements, level of detail, and smart and educational features (Therrell, 2002). While size and shape of the toy covers both size and shape of the toy and its parts, interlocking parts define the interaction between the parts of the toy (Therrell, 2002). The characteristics related to cause and effect are defined by Therrell (2002) as ways in which toys' respond to the child's actions with sound, light, movement, etc. Fine and gross motor skills that are required to interact with a specific toy forms its characteristics related to motor skills required (Therrell, 2002). There are some characteristics that make toys good for children. These characteristics can be

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classified as having multiple ways of use, being able to direct children to think, do or feel, supporting children's development in all areas, being fascinating with its shape, color, texture and sound, being entertaining and appropriate for children's abilities and interests, being free of potential risks, being responsive to the knowledge, appreciation and budget ("What Makes a Good Toy?", n.d.).

4.3. Types of Toys

According to Hoorn, Nourot, Scales and Alward (2007), there is a wide variety of types of toys incorporating many subcategories. However in this study, a basic category of toys is featured based on 3 to 6 years-old children's preferences of toys. The utilized category of toys in this part includes construction toys, dramatic play toys, arts and craft toys, and physical play toys and equipment.

4.3.1. Construction Toys

Construction toys include small pieces of toys that can be used to build larger toys (Eisenberg, Buechley & Elumeze, 2004). This type of toys allows children to constitute a geometric, architectural and engineering structure by using their own hands (Eisenberg, Buechley & Elumeze, 2004). Brotherson (2009) states that construction toys help children practice fine muscles and hand-eye coordination. Moreover Hewitt (2001) mentions that construction toys provide an unreserved play and learning experience. Hewitt (2001) states that while some construction sets come with instructions about structures that can be done by using the pieces, the real play experience seems construction itself. This category of toys includes blocks, bricks, cubes, gears, tubes, pipes and so on (Figure 4.1).

Figure 4. 1 An example of a construction toy of Lego pieces for building a scene of knights. Reprinted from Lego, In Wikipedia, n.d., Retrieved August 20, 2015, from https://en.wikipedia.org/wiki/Lego. Copyright 2013 by □.

4.3.2. Dramatic Play Toys

Dramatic play toys include many toys and equipment that help children to play act as someone else, to use an object for something else and act out experience of daily life (Brotherson, 2009). This category of toy includes dolls, stuffed animals, action figures, puppets, dress up clothes, role-play props, transportation toys and such (Figure 4.2).

Figure 4. 2 An example of dramatic play props representing a work bench and related tools. Reprinted from Build Dramatic Play and Fine Motor Skills with a Wooden Workbench, In Modern Parents Messy Kids, 2011, Retrieved August 20, 2015, from http://www.modernparentsmessykids.com/2011/05/top-5-wooden-play-workbenches.html

4.3.3. Arts and Craft Toys

Arts and craft materials help children to emotionally express themselves and support their creativeness (Brotherson, 2009). Moreover, while engaging with arts and craft toys, children have the chance to practice fine muscles, which will later help them succeed in fine motor skills (Brotherson, 2009). This category of toys includes paints and brushes, play dough and accessories, crayons, scissors, papers, clay, stickers and such crafts materials and tools (Figure 4.3).

Figure 4. 3 An example of arts and crafts toy of play dough with form-giving tools and moulds. Reprinted from Play-Doh, In Hasbro, n.d., Retrieved August 20, 2015, from http://www.hasbro.com/playdoh/tr_TR/shop/details.cfm?R= FC6FDBB0-5056-9047-F530-A6AAFF7E6279:tr_TR#

4.3.4. Physical Play Toys and Equipment

Physical play toys and equipments help children to practice their skills where they need to use their large muscles. Frost (1992) mentions that toys in playgrounds help children to move in eye-hand-foot coordination and to practice balance of their body and locomotor skills (as cited in Büyükgüral, 2003). Furthermore Brotherson (2009) mentions that while playing outdoors, children have a chance to meet with the world around them and to play socially. This category of toys and equipment take place both indoors and outdoors. This category includes toys and equipment such as balls,

bicycles, climbing steps, swings, slides, seesaws, crawling tunnels and gymnastic equipment (Figure 4.4).

Figure 4. 4 An example of physical play toy and equipment including a swing and a slide. Reprinted from Little Tikes Swing Along Castle, In Amazon, n.d., Retrieved August 24, 2015, from http://www.amazon.com/little-tikes-swing-along-castle/dp/b001oc5yl8?tag=indifash06-20

4.4. Gender-Stereotyped Toys

According to Campenni (1999) and Miller (1987), children present an inclination to prefer to play with gender-stereotyped toys and their toys are resumed to differ in terms of gender (as cited in Cherney *et al*., 2003). As mention by Cherney *et al.* (2003) toys categorized as girl-specific are differentiated from toys categorized as boy-specific in various facets. While toys categorized as girl-specific include domestic-themed and stuffed toys, toys categorized as boy-specific include vehicles, balls, guns and construction toys (Cherney *et al.,* 2003). Similarly Jadva, Hines and Golombok (2010) mention the differences of girls' and boys' toys in color and shape. It is mentioned by Pennell (1994) that while toys for girls generally have tones of pastel color like pink and lavender, boys' toys have intense colors like red, blue and black (as cited in Jadva *et al.,* 2010). Moreover when the shapes of the toys for girls and boys are examined, it is seen that while cars and other vehicles have more angular shapes, dolls have rounded shapes (Jadva *et al.,* 2010).

4.5. Gender-Neutral Toys

Gender-neutral toys can be defined as toys not having any characteristics that addresses one gender or the other (Cherney & Dempsey, 2010). One of the most important characteristics is the color of the toy. Gender-neutral toys neither have soft colors like pink, purple and lilac and nor have dark colors like black and brown. They mainly have basic colors, which cannot be attributed to any gender directly. As Auster and Mansbach (2012) mention that toys in which the dominant color palette is red and blue can be categorized as gender-neutral.

4.6. Ambiguous Toys

Cherney and Dempsey (2010) state that ambiguous toys can be defined as toys having certain characteristics that address both girls and boys. For example, an action figure wearing pink clothes can be categorized as an ambiguous toy. In this example, while the action figure, a figure of power generally seen as a boy-specific toy, sends the message that it is a boy-specific toy, the color palette of this toy sends the message that it is a girl-specific toy because of the fact that pink color is generally associated with girl-specific toys. Therefore it can be said that ambiguous toys send a confused message to children about its category (Cherney & Dempsey, 2010). Moreover according to Cherney and Dempsey (2010) children may focus on one characteristic of an ambiguous toy and ignore the other characteristic; as girls may focus on the girl-specific characteristic and boys may focus on the boy-specific characteristic.

4.7. Gender Differences in Toy Preferences

Caldera, Huston and O'Brien (1989), Campbell, Shirley and Caygill (2002), Fagot (1978), Huston (1983), O'Brien and Huston (1985), and Perry, White and Perry (1984) state that there are many studies concluding that even boys and girls between 18-24 months of age demonstrate different preferences of toys (as cited in Hughes 2009). Moreover, Alexander and Hines (1994), Pasterski *et al.* (2005), and Serbin *et al.* (2001) mention that the difference in girls' and boys' preference of gender-

stereotyped toys is so clear that while dolls are preferred mostly by girls, vehicles are mostly preferred by boys (as cited in Jadva *et al.,* 2010). Similarly, Connor and Serbin (1977) and Liss (1981) mention that while construction and transportation toys are mostly preferred by boys, dolls are mostly preferred by girls (as cited in Alexander & Hines, 2002). Likewise Goldstein (2011) mentions that even boys and girls at eight months of age prefer different toys (as cited in Pellegrini, 2011). In a study conducted by Alexander, Wilcox and Woods (2009), three to eight months old 30 infants are observed for their interest towards either a toy truck or a doll; the results show that while girls demonstrate visual preference for the doll over the truck, boys demonstrate preference for the truck over the doll. According to Freeman (2007), it is extensively assented that most of the children between two to three years of age prefer gender-appropriate toys and which toys are for boys and girls and which toys are seen appropriate or not by parents can be clearly distinguished by three years of age (as cited in Hughes, 2009). When children reach three years of age, boys' and girls' different preferences of toys are well established (Goldstein, 2011; as cited in Pellegrini, 2011).

Campbell *et al*. (2002) mention that toys must have some characteristics attracting boys' and girls' interest, however those are not still clearly identified (cited in Hughes, 2009). Bates and Bentley (1973) make a categorization in which playing with stuffed animals, playing house, doctor and sewing are seen as girls' games, and playing guns, trains, and telescopes are seen as games for boys (as cited in Cohen, 2006).

There are some studies showing that boys and girls have different playing styles with certain toys. Erikson (1977) states that while engaging with blocks, boys demonstrate tendency to make tall and long shapes, and girls show tendency to make enclosed spaces to form dumpier buildings (as cited in Cohen, 2006). According to him, biological differences between girls and boys play a role in these tendencies (as cited in Cohen, 2006). Moreover, Pitcher and Schultz (1983) mention that boys' doll play styles are different than the styles of girls (as cited in Cohen, 2006). Boys do not play

with dolls as they are the parents of the dolls, instead, they use dolls to explore, try to fit in a car, etc. (Pitcher & Schultz, 1983; as cited in Cohen, 2006).

4.8. Discussion

Toys, which are play materials that help children to easily plunge into play, are generally categorized as construction toys, dramatic play toys, physical play toys and equipment, and arts and crafts toys. It is known that boys and girls show disposition to play with specific types of toys from very early years of life. For example while boys prefer to play with vehicles, girls prefer to play with dolls. Moreover it is clear that many design features come together to label a toy as girl-specific or boy specific which may affect girls' and boys' preferences.

CHAPTER 5

CONDUCTING RESEARCH WITH CHILDREN

Children constitute a special group of the society with their own needs, desires and expectations. Therefore, taking care of their speciality, understanding their needs, desires and expectations and responding appropriately is important to carry out research with children. The researcher needs to understand the children and childhood in order to discover how to conduct a research with children and the ethical issues that should be pursued throughout the research (Grodin & Glantz, 1994; James *et al*., 1998; James & James, 2004; James *et al*., 1988; as cited in Farrell, 2005).

Because of the fact that children are so strange in life, they may not have encountered with any researcher before or they may not know what a research or a university is, therefore the researcher needs to explain those concepts clearly and shortly at the beginning (Sargeant & Harcourt, 2012). It may be helpful to set up a secure relationship with the children in the research.

Punch (2002) states that doing research with children is a controversial issue and is different than doing research with adults (as cited in Tisdall, Davis & Gallagher, 2009). According to Mandell (1991), the researcher needs to take care of the entire adult-like characteristics except physical size, while being aware of the differences between adults and children (as cited in Tisdall, Davis & Gallagher, 2009). The adult's role in researches with children is another topic of controversy (Tisdall, Davis & Gallagher, 2009).

According to Sargeant and Harcourt (2012), while preparing a research about children, it is critically significant and functional at all parts of the research to

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include children's own perspectives. However it is stated that the researchers do not still pay enough attention to conducting a research with the involvement of children (Sargeant & Harcourt, 2012).

Furthermore, according to Tisdall, Davis and Gallagher (2009), nestling both qualitative and quantitative data from children, parents and experts will make the research more supported and then data from different sources can be combined.

5.1. Methods for Conducting Research with Children

There are a wide variety of approaches that are being used in researches with children (Gallagher, 2009). Similarly, Cohen *et al.* (2008) state that based on the aim and the circumstances, the researcher can use different ways of keeping record of children's behaviors. Throughout this part of the chapter, some of the methods used in researches with children will be discussed.

5.1.1 Observations

Observational methods are appropriate to use to understand both children's behaviors and sayings (Gallagher, 2009). Moreover, children are more likely to continue engaging in their everyday activities such as playing while they are being observed when compared to other methods (Gallagher, 2009). Observations can be carried out in different formats. In narrative descriptions, the researcher writes down whatever is seen without making children realize that their behaviors and sayings are being recorded (Sharman, Cross & Vennis, 2004). In checklists, the researcher fills in a table of behaviors that is prepared formerly; in time sampling descriptions, the researcher observes and records behaviours of children between specific intervals (Sharman, Cross & Vennis, 2004). In tracking descriptions, the behaviors and the movements of children throughout an area are recorded in written or diagrammatic form (Sharman, Cross & Vennis, 2004). Hobart and Frankel (1999) mention movement and flow charts as a shorthand form of presenting information about a child in observational methods, in which children's movements around a place are shown with arrows.

5.1.2   Interviews

Interviews can provide rich and detailed data about the topic that is being investigated. It can be possible to get various data like how the user perceives, how he reacts and so on by conducting different types of interviews including structured, semi-structured and unstructured (Stanton *et al.*, 2005). According to Gallagher (2009), while conducting interviews, the researcher can clearly understand the requirements of individual children, and interviews provide the chance to attempt various generative techniques and games to find a working one. Furthermore, while conducting interviews the researcher has a chance to check hints showing whether the child is uncomfortable or desiring something (Gallagher, 2009). However it is important to bear in mind that there are also some disadvantages of interviewing with children. The past negative interview experiences of children with their teachers and other adults around them may result in discomfort or parents may feel indisposed about letting their children with a stranger (Gallagher, 2009). To avoid disparity between child-adult relationship during an interview, the researcher can find different ways to make the child have a control over interview (Gallagher, 2009). As a concern, Minichiello (1999) and Burns (2000) state that it may not be possible to provide entire anonymity for some children in interviews (as cited in Sargeant & Harcourt, 2012).

5.2 Ethical Issues in Researches with Children

Like in any other researches, conducting research with children requires some ethical issues to be recognized including consent, anonymity and confidentiality; however these issues are more specified for researches with children (Gallagher, 2009), because of the fact that children are a special group of the society with their own characteristics, needs and expectations.

According to Langston *et al.* (2004), for the researches with young children, it is crucially important to get the assent of the people caring for the children in any circumstances. The researcher must inform the parents of the children that will

participate in the research, on the expectations from the children, the necessary time for the research and the anticipated inferences of the research (Sargeant & Harcourt, 2012). Moreover children may not be clearly able to express their feelings about attending the research verbally therefore the researcher should carefully observe non-verbal cues about children's feelings and opinions about participation (Langston *et al*., 2004).

Anonimity is another point that researchers need to be careful about when conducting research with children. Anonymity, similar to other researches, is refraining from presenting identifiable information of the children in the research results (Gallagher, 2009) to protect children from any harm because of the research conducted. According to Sargeant and Harcourt (2012), researches with children that are conducted in school settings often fail to address the issue of anonymity. The researcher needs to be careful about not to share the identifiable information of children with someone else without consent to show loyalty to confidentiality issues (Gallagher, 2009).

According to Alderson (2005) there are three different levels of involvement of children in researches, which are defined as *children as unknowing objects*, *children as aware subjects* and *children as active participants*. In the researches where children are seen as unknowing objects, the researcher does not get the consent of children but just researches them although children may not know it (Alderson, 2005). In the researches where children are seen as aware subjects, children are aware of the research but their role is just to pursuit the research designed by the researcher (Alderson, 2005). Lastly, in the researches where children are seen as active participants, the researcher gets the consent of the children and the children are actively involved in the whole process of the research (Alderson, 2005). According to Gallagher (2009), the power relations between the researcher and the children are also crucial for ethics in researches with children. It is significant to give out equal power to both the researcher and the participants. Baker and Weller (2003) and Nieuwenhuys (2004) state that to provide more balanced power between

the researcher and the participants in researches with children, participatory methods can be worthwhile (as cited in Gallagher, 2009). Likewise Alderson (2005) mentions that when children are actively involved in the research, they may present more enjoyment during the process and the findings may reflect their opinions more accurately. Similarly, Sargeant and Harcourt (2012) mention that to constitute an effective and secure relationship and to provide balance between the researcher and the children, although their ages and power may be different, the researcher can make an effort to include children at all stages of the research.

5.3 Researching Children's Play and Use of Play Materials

Cherney *et al.* (2003) mention that assessing children's play helps researchers to obtain functional data about any particular domains of development of children. Researchers prefer to use play assessment instead of traditional standardized tests just because of some advantages including; providing a naturalistic environment, releasing optimum level of children's performance and allowing flexible formats (Cherney *et al.,* 2003). Similarly, Kelly-Vance and Ryalls (2008) mentioned that because of the fact that play assessment are done in natural environment, they help children to function at maximum levels. Children's use of play materials helps researchers to understand how they transform what they learn from outside into the form that they can understand (Cohen *et al*., 2008). Moreover Cohen *et al.* (2008) state that children express their feelings through the use of materials, especially play materials. Based on the actions of children while engaging in specific materials and the forms they create by using specific materials such as contruction toys, the researchers can understand their feelings, ideas, impressions and so on (Cohen *et al*., 2008). According to Cohen *et al*. (2008), the researcher needs to observe the setting while the children are engaging with materials, how the children respond to those materials and the length of time children engage with the materials. This time interval can give clues about children's interest, concentration, distractibility, challenges, etc. (Cohen *et al*., 2008). Furthermore what sounds children create, what they say, how they move, and what facial expressions they represent while engaging

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with the materials are also important clues to understand children's feelings and ideas (Cohen *et al.*, 2008).

5.4 Discussion

There are many different research methods that can be used while conducting research with children including observations, interviews, questionnaires, focus groups and other creative methods. However because of the fact that children nestle different characteristics, needs and desires when compared with adults, while conducting research with and about children, there are some critically important issues that require precision when deciding the method that will be used in the research and implementing the decided method. There are some ethical issues that the researcher should be careful about, including getting the consent of the people responsible from the child, sticking to anonymity and balancing the involvement of the child and power given to the child in the research.

CHAPTER 6

PRODUCT INVESTIGATION IN TOY STORES

A product investigation was conducted to get detailed information on toys in the current market. Based on the information gathered from this investigation, it is aimed to identify different toys and accessories, which are categorized as boy-specific, girl-specific, gender-neutral and ambiguous, to use in the further parts of this study.

6.1 Methodology of the Product Investigation

To conduct the product investigation, four toy stores in the city of Ankara were visited in a total of eight times in August, 2015. Those four toy stores were chosen for the investigation because of the fact that all they are the biggest stores in the city and they nestle very wide range of toys. Therefore they provided detailed data about the current toy market. Each toy store visit lasted around one hour. Some of the toy stores featured in the product investigation were visited more than once because they are so large and contain various toys for different age groups of children, even adults, from very early months of babyhood to later years of childhood. Toys in these stores were reviewed based on many features that will be discussed in this chapter. These features were related to the physical characteristics of the toys that are determined through design decisions that help them be identified as girl-specific, boy-specific or gender-neutral. While reviewing, the features observed and tried were promptly written down on sheets. The features determined in each visit were then transferred to computer, and merged in order to obtain a pool of features. The final document was reviewed with a thematical analysis in order to identify categories and subcategories. Then, based on these categories and subcategories, a detailed table was prepared.

Table 6. 1 Toy stores visited during product investigation and total duration of the visits

	Times visited	Total Duration of the Visits
Toy Store A	4 times	4 hour
Toy Store B	2 times	2 hour
Toy Store C	1 time	1 hour
Toy Store D	1 time	1 hour

6.2 Types of Toys and Their Design Features

Based on the product investigation carried out in toy stores, firstly, toys were categorized based on their types, as 'dolls', 'vehicles', 'toy sets', 'dramatic play props', 'construction toys' and 'arts and crafts toys'. Then to make it more reflective, subcategories were constituted for dolls as 'baby dolls', 'character dolls', and 'animal dolls'. The subcategory of character dolls was divided into the further subcategories of 'barbie-type dolls' and 'action figures'. The vehicles category was divided into the subcategories of 'toy vehicles' and 'model vehicles'. Furthermore the toy sets category was divided into the subcategories of 'vehicle sets', 'baby doll and barbie-type doll sets' and 'other toy sets'.

Each of these toys were assessed according to their design features, which were identified as a result of the analysis of the investigation findings, as 'theme', 'size', 'color', 'light', 'sound', 'graphic applications', 'figure', 'figure accessories', and 'other accessories related to the theme'. The resulting toy categories and their design features are given in Table 6.2 in Appendix A. The following sections describe these features in reference to toy categories.

6.2.1 Theme

There is a wide range of themes used in toys; however themes in specific types of toys are similar to each other. While nurturing activities like feeding, lulling, toilet training, dressing up are dominant themes in baby dolls, the themes including being

princess, mermaid, fairies, ballerina, fashion model, pop star, and other alternative imaginary figures such as witches, have dominancy in barbie-type dolls (Figure 6.1). Animal dolls also have some themes similar to barbie-type dolls, which are being princess, pop star, baby, fairies, and so on. Themes in action figures, the other type in the subcategory of character dolls, include adventure, combat, robots and super heroes.

Figure 6. 1 An example of barbie-type doll with a theme of mermaid. Reprinted from Barbie Prenses Denizkızı Lumina, In Joker, n.d. Retrieved August 28, 2015, from https://www.joker.com.tr/urun/barbie-prenses-denizkizi-lumina-13537.

While for toy vehicles the theme is defined by the type of vehicle such as train, lorry, truck, tractor, race car and helicopter, model vehicle themes are defined by the brand and model of the vehicle as luxury, antique, race and off-road automobiles.

In baby doll and barbie-type doll sets, themes include manor house, princess house, villa, kitchen and so on. Vehicles and surrounding accessories and places in vehicle sets play role in defining the overall themes including tiring wheels, repairing cars, racing, controlling traffic, constructing and rescuing. When other toy sets are assessed according to theme, a few themes arise among others, which are home life experiences, adventure experiences and experiences in nature. The home life theme

includes examples of princess house, manor house, and forest creatures house. The adventure theme includes examples of knights, pirates, soldiers, policemen and spaceships. The nature theme includes examples of safari park and farm.

Dramatic play prop themes are mainly classified as adventure, fairytales, social life and home life. Similar to toy sets, the adventure theme includes being soldier, policeman and knight. The social life includes some occupational experiences like being doctor, repairman, having restaurant, market or shop. The home life theme includes experiences like cleaning up, dressing, cooking, doing the laundry, etc.

In construction toys, like toy sets and dramatic play props, a wide range of themes is observed. Themes like beverage shop, café, house, manor house are among home and social life experiences, whereas themes like war, rescue, defense, and racing are among adventure experiences, and themes like mountain hut, zoo and farm are among nature experiences.

For arts and crafts toys, themes like ice-cream shop, barber, hair design, princess house, dentist, movie snacks, burger builder and dressing are among home and social life experiences. Themes like construction, super heroes and digging rigs are among adventure experiences.

6.2.2   Size

When the size of toys is assessed, it is observed that both different toy categories and toys in a specific category show differences in size. While small sized toys are easy to manipulate, large toys are difficult to carry and handle, and seem not transportable. While baby dolls have the largest range of size variety in dolls, character dolls and animal dolls are similar to each other in size. Although vehicles also vary highly in size, almost all vehicles are easy to handle (Figure 6.2, Left and Right). Toy sets, dramatic play props, construction toys and arts and crafts toys also differ in size. While some of these toys include few and small pieces that are easy to manipulate, others have large and many pieces making them not transportable. Particularly, in construction toys, differences in size of pieces depend on the age

group that they are marketed for. Pieces for children under 3 years of age are larger and as the age increases the pieces become smaller.

Figure 6. 2 Examples of toy vehicles. An example of a large wireless-controlled toy vehicle (Left). Reprinted from E.Z Drive 4 Fonksiyonlu Uzaktan Kumandalı Araba, In Joker, n.d. Retrieved August 28, 2015, from https://www.joker.com.tr/urun/ez-drive-4-fonksiyonlu-uzaktan-kumandali-araba-4261 An example of vehicle set with small toy vehicles (Right). Reprinted from Hot Wheels 10'lu Araba Seti, In Joker, n.d. Retrieved August 28, 2015, from https://www.joker.com.tr/urun/hot-wheels-10-lu-araba-seti-944

6.2.3   Color

For some types of toys there are some dominant colors; however for some other types of toys the color dominancy depends upon the theme of the toys. All types of dolls, except action figures, use mainly light and soft pastel color tones including pink, purple, white, blue, yellow, orange and green. Action figures and alternative female character dolls use saturated warm and darker color tones including red, blue, white, green, orange, black and purple.

All types of vehicles including toy vehicles and model vehicles have similar color palettes. They are mostly saturated warm and darker color tones including red, black, white, green, blue, gray, beige and silver.

For toy sets, dominant colors differ based on the theme of the toys. While vehicle sets are mostly saturated warm and darker color tones like gray, yellow, blue and brown, baby doll and barbie-type doll sets are mostly light and soft pastel color tones like pink, purple, white and blue. Moreover, while toy sets with themes of adventure or warfare experiences include saturated warm and darker color tones like beige,

gray, brown and black, toy sets with themes of home life experiences have light and soft pastel color tones like pink, purple, white and yellow. Toy sets that present experiences in nature, on the other hand, mainly have basic vivid color tones including red, blue, yellow, and green (Figure 6.3).

Figure 6. 3 An example of toy set about farm life. Reprinted from İlk Çiftliğim, In Joker, n.d. Retrieved August 28, 2015, from https://www.joker.com.tr/urun/ilk-ciftligim-1528

Like toy sets, dramatic play props have also different dominant colors based on the theme of toys. While dramatic play props of adventure and warfare theme have saturated warm and darker color tones like brown, black, dark blue and dark green, dramatic play props with social life experiences include basic vivid color tones like red, blue, green, gray and orange. On the other hand, dramatic play props with home life experiences have soft and light pastel color tones like pink, purple, lilac, white and gray.

Similar to toy sets and dramatic play props, construction toys have similar color palettes depending on their themes. While themes including rescue, war and racing have saturated warm and darker color tones like dark blue, black, gray and brown, themes including mountain hut, farm and zoo have basic vivid color tones like red, yellow, green, orange and blue, and themes including beverage shop, café, house and manor house have light and soft pastel color tones like pink, lilac, light blue, light green and white.

Although there are some minor differences in the color palettes of various themes of arts and crafts toys, they include mainly vivid, saturated and basic color tones like red, yellow, green, orange and blue. However, some arts and crafts toys with themes like manor house, princess house and dressing have soft and light pastel color tones like pink, lilac, white, light blue and so on.

6.2.4   Use of Light

Uses of light in toys have different purposes in different categories of toys. For baby dolls, the light is used to symbolize that something went wrong with the baby. For example lights on cheeks means that the baby has fever or lights on feeding bib means that it has become dirty. In character dolls, lights are used as decorative and effective meaning. For all types of vehicle toys light is used for headlights and signal lights like in an ambulance and police car. In toy sets, light is used for a wide variety of purposes based on the theme of the toy. The light is used in different parts of the structures and figures, for example in baby doll and barbie-type doll sets, lights are used as signals for machines and tools and as house lights. Like toy sets, in dramatic play props light is used for a variety of purposes to reflect real usages of machines, tools and structures based on the theme of the toy. For example lights on a toy microwave oven show that the machine is working. In construction toys and arts and crafts toys, there is no use of light observed throughout the product investigation.

6.2.5   Use of Sound

Uses of sound in toys have many different purposes. Moreover different sounds are used in one toy. For baby dolls use of sound is highly common. In this type of toys sound is used for the talking, singing, crying and laughing of the doll. In character dolls, while for barbie-type dolls, use of sound was not observed, for action figures sound is commonly used for talking and creating effects, such as weapon sounds. Similar to baby dolls, for animal dolls the sound is used for talking, singing, making animal sounds and laughing. There is an obvious difference in types of sound used in

action figures and the other types of dolls. While the sounds of action figures are mechanic and rigorous, the sounds of other dolls are humanely and smooth.

In all types of vehicles the sound is generally used for creating effects like speed, engine sound and alerts; however some of these toys also talk and play music.

For toy sets, sound is used for playing music and creating effects like nature and animal sounds. In dramatic play props sound is used to create effects of real machine and tools like drill, vacuum cleaner and cash register. In construction toys and arts and crafts toys, no usage of any sound was observed during the investigation.

6.2.6 Movement

Different types of toys have different parts that are able to move. Some of these movements can be carried out electronically; others are done mechanically and still others are done by manipulation. However all of these movements help to support the theme, purpose and practice. Examples of electronic movements in baby dolls include dancing, bouncing and walking. Examples of mechanical movements include blinking eyelids when doll changes position. Examples of movements by manipulation include turning head, moving arms and bending legs. Almost all barbie-type dolls have parts that can be moved by manipulation, for example, pliable knees and elbows, turning heads, moving and turning arms. Some female character dolls have removable body parts to help them dress and undress. And some barbie-type dolls have some mechanical movements like twinkling tail and flapping wings. On the other hand mechanical movements in action figures are more common, for example, for throwing weapons and transforming shapes (Figure 6.4).

Figure 6. 4 An example of action figure changing shape with mechanical movement. Reprinted from Transformers Prime Büyük Figür, In Joker, n.d. Retrieved August 28, 2015, from https://www.joker.com.tr/urun/transformers-prime-buyuk-figur-861

All types of vehicles have similar movements, like rotating wheels, moving hinged doors, rear deck and hood, moreover, some vehicles change shape, and have parts like moving and lifting tools. On the other hand, both movements by manipulation and mechanic movements in toy sets differ widely for specific purposes. For example, moving and triggering weapons, hinged doors, moving windows, moving animals, and features like elevators can be found. Similarly, in dramatic play props, based on the theme there are many moving structures to reflect real usages of machines, furniture and tools. For example hinged kitchen cabinet caps, drawers, folding cash register, and triggering weapons can be seen.

In construction toys, there are moving parts of the structures, vehicles, machines and figures which can be manipulated by hand, like moving windows, hinged doors, moving vehicle parts, moving arms and turning heads of the figures.

In arts and crafts toys, both mechanic movements and movements by manipulation are generally used. For example, moving handles to create a shape, hinged moulds and roller pins can be found.

6.2.7 Graphic Application

There are some graphic applications on surfaces of toys that support the usage, and theme. Graphic applications seem similar in toys; however there are some differences in the style of these applications in different types of toys.

For dolls, graphic applications are generally used as patterns on the clothes and accessories. These graphic applications include different shapes, animals, flowers, letters and numbers. For dolls the graphic applications on clothes are generally decorative. Moreover, some dolls have some graphics on their body and face including symbols like diamonds, stars and flowers.

For vehicles graphic applications are implemented to signify brand logos, patterns, flags, and symbols such as flames that represent meanings like speed, race and power (Figure 6.5, Left and Right).

For toy sets, dramatic play props, construction toys, and arts and crafts toys, there is a wide variety of graphic applications on both the structures and the figures of the specific toy based on the theme.

Figure 6. 5 Examples of graphic applications. An example of a toy vehicle with numbers and flags as graphic applications (Left). Reprinted from Bruder Toys Loader Backhoe, In Amazon, n.d. Retrieved August 28, 2015, from http://www.amazon.com/Bruder-Toys-02428-Loader-Backhoe/dp/B00009XNRU. An example of an animal doll with shapes on body as graphic applications (Right). Reprinted from My Little Pony Prenses Cadance, In Hasbro, n.d. Retrieved September 1, 2015, from http://www.hasbro.com/tr-tr/product/my-little-pony-cutie-mark-magic-glowing-hearts-princess-cadance-figure:2BD9C11C-5056-9047-F5DC-0209FFAB8243

6.2.8 Figure

Figure in toys is another feature that is reviewed based on their gender and age in this investigation. Although some types of toys mainly include a specific gender, others include both genders. Interestingly some types of toys include figures, which cannot be categorized as either male or female. Moreover simply some types of toys have no figures at all. Baby dolls are generally female or in a figure that seems neither female nor male, in other words, genders for baby dolls sometimes cannot be distinguished, they are unspecified. Furthermore for baby dolls, figures are generally babies but sometimes there are child-aged figures. For character dolls, while action figures are almost always male and adult, barbie-type dolls can be female or male and baby, child or adult. Like baby dolls, figures of animal dolls are generally female but sometimes there are unspecified figures.

For all types of vehicle toys, figures are male and adult. No female figure was observed for vehicle toys. Moreover some vehicle toys do not include any figures.

In toy sets, figures are female or male and child or adult. Baby doll and barbie-type doll sets also include female or male figures as a baby, child or adult. However some baby doll and barbie-type doll sets do not include any figure. On the other hand vehicle sets include male and adult figures or they do not include any figure.

Dramatic play props do not have any figures because of the fact that while playing with those types of toys, children are the real characters of the play. For construction toys, female or male figures are included and those figures can be children as well as adults (Figure 6.6). Moreover some construction toys do not include any figures. Arts and crafts toys rarely include figures; some arts and crafts toys include female or male adult figures, on which the arts and crafts material can be applied.

Figure 6. 6 An example of construction toy with two male figures. Reprinted from Lego City Police Prisoner Transport, In Amazon, n.d. Retrieved August 28, 2015, from http://www.amazon.ca/LEGO-City-Police-Prisoner-Transport/dp/B004478GJM

6.2.9   Figure Accessories

Based on the theme of the toy and the gender of the figure, the type, number and size of the figure accessories differ. While female figures have accessories like clothes, shoes, bags, jewelry and make up accessories, male figures have weapons, binoculars, masks and shields (Figure 6.7). As observed, accessories of female figures are more in numbers and smaller in size compared to those for males; however accessories of male figures have more complex features, for example buttons to reshape or trigger the weapons.

Figure 6. 7 An example of action figure with different weapons as figure accessories. Reprinted from G.I. Joe The Rise of Cobra, In Amazon, n.d. Retrieved August 28, 2015, from http://www.amazon.ca/Joe-Action-Figure-Weapons-Specialist/dp/B00WVG0HYA/ref=sr_1_65?s=toys&ie=UTF8&qid=1441042899&sr=1-65&keywords=action+figure+with+weapons

6.2.10 Other Accessories Related to the Theme

Like figure accessories, other accessories related to theme also differ based on the theme of the toy and the figure in the toy. While accessories of baby dolls, barbie-type dolls and animal dolls generally include accessories like house furniture and grooming products, action figures include accessories like vehicles. Similarly the accessories in toy sets differ according to the theme of the toy. While vehicle sets include roads, bridges and platforms, baby doll and barbie-type doll sets include furniture, animals and household goods (Figure 6.8).

Figure 6. 8 An example of toy set with various accessories related to the theme. Reprinted from Tangda Happy Villa House Model Lovely Home, In Amazon, n.d. Retrieved August 28, 2015, from http://www.amazon.ca/Tangda-Happy-Villa-House-Lovely/dp/B00O9XOVUO/ref=sr_1_8?s=toys&ie=UTF8&qid=1441042551&sr=1-8&keywords=princess+house+toy+set

6.3 General Discussion about Types of Toys, Design Features and Gender

Based on the information gathered from the product investigation, some insights were gained concerning toys for girls and toys for boys. Overall it is clear that some types of toys can be categorized as being either for girls or for boys. It is also observed that for some types of toys, although being the same type, the design features play a role in reference to gender, as being a boys' or girls' toy. It is also understood that many design features come together to create a gender-specific toy.

Theme and related color palette: It is noticeable that together with the color, the theme is one of the most apparent factors in determining toys' reference to gender. For example, as observed in the product investigation, while a home based kitchen and its accessories are designed with light and soft pastel color tones referring to a girl-specific toy, a repairman worktable and its accessories are designed with saturated warm and darker color tones referring to a boy-specific toy, whereas a restaurant kitchen and its accessories (a kitchen having a cash register) are designed with basic vivid color tones seeming to be a gender-neutral toy. There are many examples of different themes that seem to be referring only to girls or boys (Figure 6.9 Left and Right).

Figure 6. 9 Examples of construction toys. An example of construction toy with theme of summer life (Left). Reprinted from Heartlake Lighthouse, In Amazon, n.d. Retrieved August 28, 2015, from http://shop.lego.com/en-GB/Heartlake-Lighthouse-41094?fromListing=listing. An example of construction toy with theme of pirates (Right). Reprinted from The Brick Bounty, In Amazon, n.d. Retrieved August 28, 2015, from http://shop.lego.com/en-GB/The-Brick-Bounty-70413?fromListing=listing

Accessories and level of detailing: As observed throughout the product investigation, there are some differences that appear between both gender's toys in terms of the accessories and their level of detailing. Girl-specific toys have many and smaller accessories and both the accessories and the structures are simpler. On the other hand boy specific toys have lesser and bigger accessories however they are more complex in structure, for example, they are able to move mechanically.

Usage of form and physical features: After analyzing the toys and their design features in the current market, it is recognized that the form of the toy and its physical features add a meaning of being a girl- or boy-specific toy. While toys that seem to be girl-specific have forms that have more curved and smooth edges and corners, toys for boys have more fine and distinct forms.

6.4 Features of Girl- and Boy- Specific and Gender-Neutral Toys

As a result of this investigation and the evaluation of the various toy examples, it has become possible to make some comments on the features of these toys based on the gender they address.

6.4.1 Features of Girl-Specific Toys

Based on the product investigation, some particular features are identified in girl specific toys. One of those is color palette used in girl-specific toys, which can be noticed at first glance. The color palette of these toys includes soft and pastel tones such as pink, lilac, yellow and light blue. Themes of such toys are generally about home life experiences, nurturing activities and fairytales. Use of sound in girl-specific toys is generally for laughing, talking, crying, singing, ringing of doorbells and sound effects for home appliances, and the sound is smooth. Figures in girl-specific toys are often female adult, teenage or child. Sometimes male and unspecified figures can be observed in girl-specific toys. The graphic applications used in girl-specific toys are usually patterns like flowers, diamonds and stars. In girl-specific toys, there are many small pieces of accessories like pets, perfumes, combs, clothes and make up accessories.

6.4.2 Features of Boy-Specific Toys

The results of the product investigation present that the color palette used in boy-specific toys include saturated warm and dark color tones like black, brown, gray, beige and dark blue. In boy-specific toys themes generally used are war, race, rescue and adventure. The sound is used for shouting, imitating some machines and

weapons and the sound is generally mechanic and rigorous in such toys. Figures in boy-specific toys are almost always male and adult. In boy-specific toys flags, logos and symbols are used that express speed and power. The accessories in boy-specific toys usually are weapons and machines and those are not as small as the accessories in girl-specific toys. These toys and their accessories generally contain mechanically moving parts.

6.4.3   Features of Gender-Neutral Toys

As observed throughout the product investigation, the color palette used in gender-neutral toys includes basic and vivid color tones like red, green, blue and yellow. The themes in such toys include nature, adventure and social life. The usage of sound in gender-neutral toys is generally to imitate different machines and animals. Moreover both male and female figures are used in gender-neutral toys.

6.5 Identification of the Toy Sets for the Main Study

Based on the information gathered through the product investigation, the design features that are used mostly in girl-specific, boy-specific or gender-neutral toys were identified. With the help of the identification of these design features of toys, it is believed that a toy set that includes toys with girl-specific, boy-specific and neutral elements can be constituted. Hence it is decided that toy sets can be a good preference to use in the study because of the fact that each toy set includes many elements. For the study, a toy set constituted of various elements was devised, such that the components of the toy set were selected to display examples of various design features that could be observed.

CHAPTER 7

EMPIRICAL STUDY SET-UP AND DATA COLLECTION

In the main research of this study, the gender-based categorizaitons of toys by preschool children are investigated while they are playing. Based on the product investigation, four different toy sets were constituted. Toy sets constituted are attributed as girl-specific, boy-specific, gender-neutral and ambiguous with different accessories, which are small pieces of toys, determined based on gender-related design features identified in the product investigation. The study is carried out in Çankaya Merkez Anaokulu located in Ankara, Çankaya district, which is a public preschool for children between 3 to 6 years of age.

7.1 Aim of the Study

The research aims to find out how children categorize the toys based on their gender-related design features and which design features are more distinctive for girls and boys. The researcher assumes at this stage that girls and boys will have different expectations, preferences and approaches to the gender-specific features of the toy components in the toy sets. While girls might prefer playing with toy components with girl-specific features, boys might prefer mainly playing with the toy components that have boy-specific features. It is hoped to understand which features of the toys will lead to children to put them into a category of girl-specific, boy-specific, gender-neutral and ambiguous.

7.2 Expected Outcomes

As a result of this research it is hoped to obtain information about children's gender-based categorizations of toys having certain design features. This information will lead which design features play role in children's categorizations of toys as being girl-specific, boy-specific, gender-neutral and ambiguous so that there will be outcomes that practitioners can benefit to provide toys for all children.

7.3 Pilot Study

A pilot study is carried out at the private home of the participant (Summer 2016). The aim of the study is to find out the convenience of the toy sets and accessories constituted for the main study. Moreover it is aimed that the findings of the pilot study will help to revise the overall process of the main study from setting, methodology, materials etc.

7.3.1 Participant

The participant of the pilot study was a 5-year-old female child who is attending a preschool program.

7.3.2 Setting and Research Materials

The study was conducted at the participant's home. The toy sets were placed beside each other on the floor and the accessories put altogether on the floor. Because of the fact that the setting is familiar to the participant, she was comfortable during the study.

Figure 7. 1 Setting and research materials of the pilot study.

Four different toy sets were used in the pilot study. Each toy set has a scene, figures and accessories. The toy set 1 (TS1) was a knight castle in dark colors including gray and brown (Figure 7.1). The toy set 2 (TS2) was a farm in mainly green. The toy set 3 (TS3) was a princess chateau in soft colors including light pink and lilac. Lastly the toy set 4 (TS4) was an airport in mainly gray, green and blue. There were also too many accessories used in the pilot study. These include a horse carriage, two horses for horse carriage, a bed with mosquito net, a chest, a cabinet, a suitcase, a princess without moving parts, a princess with moving arms and legs, a prince without moving parts, two food containers, an arrosoir, a chateau flag, a brown horse with moving legs and neck, a gray horse with moving legs and neck, a black knight with moving arms and legs, a gray knight with moving arms and legs, a stepladder, a cannon carriage, a cannon ball, a tractor with a trailer, a big horse, a small horse, a cow, a rooster, ducks, rabbits, a sheep, a paddle, a pitchfork, a tree, a girl with moving arms and legs, a boy with moving arms and legs, a worker with moving arms and legs, a farmer with moving arms and legs, a cat, two different airport traffic signs, a fire engine, a police car, a purple car, a plane and a helicopter. While some of these accessories were directly related to specific toy sets, the others seem uncertain about which toy set it is related to.

Figure 7. 2 Toy sets and accessories used in the pilot study. The knight castle (Top left), the farm (Top right), the princess chateau (Bottom left) and the airport (Bottom right).

7.3.3   Methodology of the Pilot Study

In the pilot study, participant observation technique was used. While the participant of the pilot study was engaging with the toy sets and accessories, the researcher talked with the participant about the toys, her preferences and categorizations both to trigger her to play with them and to learn more about her opinions. Moreover while observing, a semi-structured interview technique was also used. The researcher asked some questions about the participant' preferences and behaviors based on the progress of the session.

7.3.4   Duration of the Pilot Study

The pilot study lasted approximately half an hour, which was somewhat ideal for a study carried out with a child of this age. It was observed that by the end of the

study, the participant's attention was distracted and she started to play with the toys in the way she wanted.

7.3.5 Data Collection Method

A digital camera, Panasonic Lumix DMC-FS41, was used to record the participant's behaviors, speeches and choices of toys to play with. The camera was placed behind the participant by using a tripod therefore it was possible to record the process while avoiding the participant's identity for confidentiality.

Moreover, two different checklists were filled by the researcher during the sessions. One checklist was about the toys sets and accessories' relation with genders. The other checklist was about the relation between the accessories and toy sets.

7.3.6 Findings of the Pilot Study

Table 7.1 demonstrates replacement of the accessories to the toy sets by the participant of the pilot study. Five of the accessories were placed to the knight castle, thirteen of the accessories were placed to the farm, the other thirteen of the accessories were placed to the princess chateau and the last nine of them were placed to the airport. The farm and the princess chateau were the toy sets which most of the accessories were related to. From these toy sets, the participant primarily preferred to play with the princess chateau. However she mentioned that she liked the plane most out of these toys because of the fact that it can move and has sound and lights. She also mentioned that it is a girl-specific toy because of its pink color.

Table 7. 1 Accessories replaced to each toy set

	Accessories replaced
TS1 Knight Castle	gray horse, gray knight, stepladder, cannon carriage, cannon ball.
TS2 Farm	Big horse, ducks, rabbits, tractor with trailer, girl, boy, farmer, worker, rooster, paddle, pitchfork, tree, cow, sheep.
TS3 Princess Chateau	bed, chest, cabinet, princess, flag, horse carriage, two horses, black knight, suitcase, arrosoir, prince, princess, food containers.
TS4 Airport	police car, car, helicopter, plane, traffic signs, fire engine, cat, tree.

7.3.7   Evaluation of the Pilot Study

In the pilot study, the toy sets and all the accessories were placed on the floor before the session started. This situation led the attention of the participant to be distracted and she experienced difficulty in focusing on each accessory one by one and on what the researcher was talking about. Therefore for the main study, it is planned that only the four toy sets will be on floor before each session and all other accessories will be brought out on floor one by one throughout the session. This may help the participant to focus on each accessory and explain his/her opinions about each.

In the pilot study the video camera was placed behind the researcher and the participant to prevent the identity of the participant to come to light. However this positioning of the video camera resulted in poor focus on toy sets and accessories. Moreover, while watching the video records, sometimes it was hard to understand which accessory the participant and the researcher were talking about. Therefore, for the main study the video camera is planned to be placed in front of the participants and the researcher while adjusting it to just focus on the toys and hand movements of the participants and the researcher. Furthermore the video camera used in the pilot

study is just able to record fifteen minutes videos, which interrupted the session and broke the continuity. Hence it is planned to use different video recording equipment for the main study.

The setting of the pilot study was too comfortable for the participant because the pilot study was conducted in her home. Hence during the pilot study sometimes she felt free herself to play in the way she wanted with the toy sets and accessories. It is believed that when the main study will be conducted in a preschool classroom setting, the process will be much more controlled by the researcher.

While watching the video records, it is observed that during the pilot study session, the researcher sometimes failed to learn about the ¨Whys?¨ of the opinions of the participant to get detailed data. Therefore for the main study it is believed that all the sayings of the participant must be questioned to learn more about his/her opinions. Furthermore, it is also observed that the relations of gender issue with both toy sets and accessories, which is the main focus of this study, were not sufficiently inquired during the session. For the main study, the process will be constructed to learn more about the gender labeling of the participants for the toy sets and accessories.

Lastly, there were many accessories for toy sets used in the pilot study. This case resulted in confusion. For the main study it is planned revise the toy sets and to restrict specific number and types of accessories for each toy sets.

7.4 Main Study

Based on the findings of the pilot study, the main study including the research materials, setting and methodology was revised. Sessions for the main study were held in a public preschool, Çankaya Merkez Anaokulu, in March 2017.

7.4.1 Participants

The participants of the main study are preschool students, from a public preschool in a center district of Ankara, who are between 5 to 6 years of age and continue their last year of preschool education. The reason behind choosing children between those years of age is that they present more complex forms of play experiences and they are more capable of verbally expressing the reasons behind their actions and opinions. It is believed that children between those years of age can meet the requirements of the study in an appropriate way.

Before the study, it was expected to obtain written consent from the parents of fifteen students of the preschool for their child to take part in the study. However only twelve students' parents gave written consent. One student did not attend school on the day of the study, leaving 11 students, six of whom were girls and five were boys. One girl student was excluded from the study for an equal distribution of gender. Therefore ten out those eleven preschool students are included in the main study.

While five of the participants out of ten are female, the other five are male (Table 7.2). Because of the fact that the study is mainly focused on gender issues, it is important to provide a balance between females and males.

Table 7. 2 Information about the Participants

Participants	Gender	Age	Year in Education
P1	Male	6 years 5 months	Second year
P2	Female	5 years 6 months	Third year
P3	Female	5 years 4 months	Third year
P4	Female	5 years 7 months	Third year
P5	Female	5 years 7 months	First year
P6	Male	5 years 6 months	Second year
P7	Male	5 years 6 months	Third year
P8	Female	5 years 5 months	Third year
P9	Male	6 years 2 months	Second year
P10	Male	5 years 4 months	Second year

7.4.2 Setting and Research Materials

Sessions for each child were carried out in the same room in the public preschool. The researcher, the participant and a trainee preschool teacher were in the room to make the child feel relaxed and free. The room was a meeting room; therefore there was a large table and chairs. To prepare it for the study, an empty area was arranged in the middle of the room. The toy sets constituted for the study were placed on floor to make the children freely play around with the toy sets. Two cushions were also placed on floor. The researcher and the participant sat on the cushions and engaged with the toy sets.

The toy sets of the study include many girl-specific, boy-specific and gender-neutral accessories, which may trigger children to use most of them to form a play. The accessories of each toy set include a scene with spatial features (houses, rock, trees, etc.), figures, accessories of these figures, and various other accessories related to the theme.

Figure 7. 3 The knight castle

First toy set of the study includes a knight castle and its six accessories (Figure 7.3 & Figure 7.4). The gray knight castle has a mechanically folding door. As demonstrated in the table below (Table 7.3), this toy set includes two figures; one knight in black color with shield and one knight in gray color with a flag, which have moveable arms and legs. Moreover, both of the figures are male. The toy set also includes a brown cannon carriage, which is able to fire its cannon mechanically, and a gray cannon ball for the carriage as two other accessories. The toy set also includes a brown stepladder and a brown horse that is able to move its legs and neck.
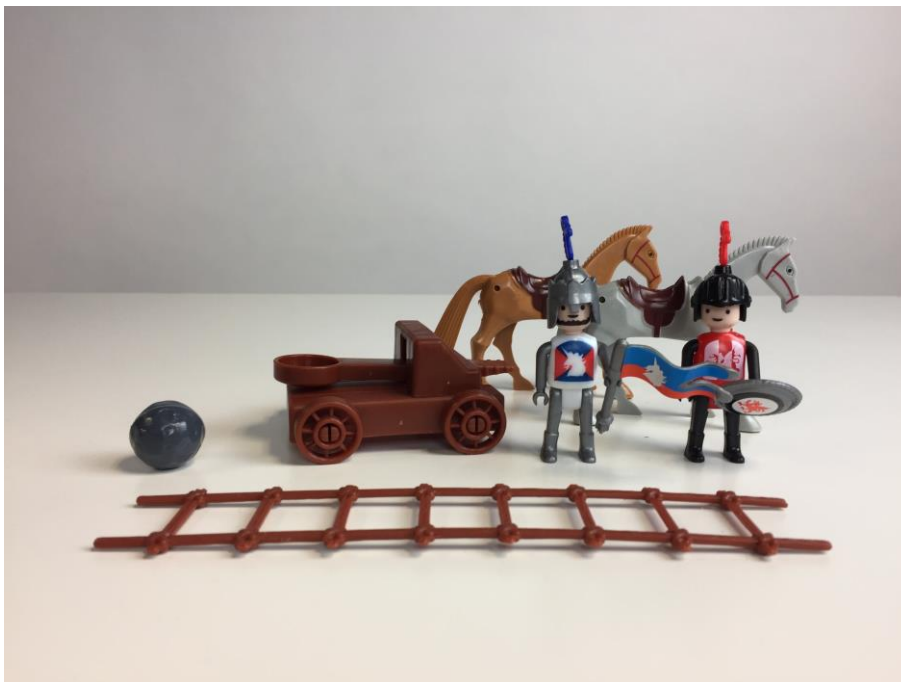
Figure 7. 4 Accessories of the knight castle

Figure 7. 5 The farm

Second toy set of the study includes a farm and its six accessories (Figure 7.5 &
Figure 7.6). The farm has a house, fences and mechanically folding door. This toy set
includes two figures; one of them is a female farmer holding a paddle and the other is
a male farmer holding a pickaxe as shown in the table below (Table 7.3). Both of
them have moveable arms and legs. The toy set also includes a cow, a sheep and a
tree. Lastly it includes a tractor with trailer.

Figure 7. 6 Accessories of the farm

Figure 7. 7 The princess chateau

Third toy set used in this study includes a princess chateau and its six accessories (Figure 7.7 & Figure 7.8). The pink princess chateau has a folding door. As demonstrated in the table below (Table 7.3), it includes two figures; one of which is a princess in light blue dress holding a mirror and the other one is a prince wearing pink clothes. Both of them have moveable arms and legs. This toy set also includes a light blue bed with mosquito net, a pink chest that can be opened. It also includes two connected white horses and a pink horse carriage that can be attached to the horses.

Figure 7. 8 Accessories of the princess chateau

Figure 7. 9 The airport

The fourth toy set used in this study includes an airport and its six accessories (Figure 7.9 & Figure 7.10). The airport has a terminal, an aircraft hangar and a traffic control tower. The toy set includes two figures, one of which is a female police wearing black and holding a radio, the other figure is a fireman in red (Table 7.3). It also includes a pink plane, which is able to make sounds and light while moving, a fire engine, which has a folding stepladder and a purple coach. The toy set also includes an airport traffic sign.

Figure 7. 10 Accessories of the airport

Table 7. 3 Accessories of each toy set.

	Accessories					
Knight Castle	Black male knight	Gray male knight	Stepladder	Cannon carriage	Cannon ball	Knight horse
Farm	Female farmer	Male farmer	Tree	Tractor with trailer	Cow	Sheep
Princess Chateau	Princess	Prince	Bed	Pink chest	Horse carriage	Horses of carriage
Airport	Female police	Male fire fighter	Airport traffic sign	Pink plane	Purple coach	Fire engine

In the table below (Table 7.4), all the accessories used in the study are shown with their codes. The codes are given to the accessories based on their sequence of demonstration to the participants during main study sessions. The sequence is constituted by putting the much more similar accessories of each toy set right after each other to make the participants get a chance to think about and compare the similar ones. The sequence of demonstration of the accessories help the participants

to categorize them as girl-specific, boy-specific, gender-neutral and ambiguous and replace them to each toy set more reasonably.

Table 7. 4 Accessory list with their codes.
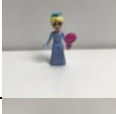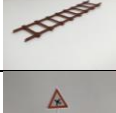
A1		Horses of carriage
A2		Pink plane
A3		Cow
A4		Knight horse
A5		Princess
A6		Male fire fighter
A7		Female farmer
A8		Gray male knight
A9		Bed
A10		Tree
A11		Stepladder
A12		Airport traffic sign

Table 7.4 (Continued)

A13		Cannon carriage
A14		Horse carriage
A15		Fire engine
A16		Tractor with trailer
A17		Black male knight
A18		Prince
A19		Female police
A20		Male farmer
A21		Pink chest
A22		Cannon ball
A23		Purple coach
A24		Sheep

7.4.3 Methodology of the Study and Procedure

Participant observation technique was used in sessions with each participant. While the participant was engaging in play, the researcher tried to trigger his/her play experiences by taking part in the play, asking questions, etc. A semi-structured interview was conducted with the participants based on their opinions about the toy sets and accessories and gender-based categorizations while they were engaging with the toy sets.

Before each session, an introduction was performed to make children become familiar with the researcher. Furthermore the aim of the study was explained to the children and it was stated that they are free to play with whatever they want and however they want, also that they are free to leave the session when they wish. To begin with, the participant was asked to categorize each toy set as girl-specific, boy-specific, gender-neutral or ambiguous. Afterwards the participant was asked to place each accessory to the toy set it belongs to while categorizing it as girl-specific, boy-specific, gender-neutral or ambiguous. Moreover during the play, the participant was asked why s/he was carrying out certain behaviors with the toy sets and accessories. When all the accessories were placed to certain toy sets, the participant was asked to play with the toy set s/he wanted most and there took place a discussion about his/her opinions, preferences and gender-based categorizations. The aim of the interviews was to get detailed information about 'Whys?' of the play of the participants.

To learn more about the ″Whys?″ of preferences, opinions and gender-based categorizations, laddering as interviewing technique was used. Whenever the participant made a choice or presented his/her opinion about any toy set or accessories, the researcher dug in depth by asking ″Why?″. ″Why do you think that this is a girl-specific toy?″, ″Why do you think that this accessory belongs to this toy set?″ were among the sample of questions directed to the participants throughout the sessions. Zaman and Abeele (2010) argue that laddering technique can provide a

large scope of data including the reasons behind why a participant likes or dislikes a product.

7.4.4 Schedule

Sessions were planned to be carried out on the morning in free playtime not to prevent the daily education program that the child attends. However based on the proposal of the preschool staff, the sessions were carried out in one day from morning after breakfast till the end of the school time (Table 7.5). Based on the daily program of the school, during the lunchtime, the activity time (inflatable planetarium activity) and the mid-afternoon snack time no sessions were held therefore the session schedule includes three free time intervals.

Table 7. 5 Schedule of the sessions

	Date	Time interval
P1	23.03.2017	10:00 – 10:25
P2	23.03.2017	10:25 – 10:50
P3	23.03.2017	10:50 – 11:15
P4	23.03.2017	11:45 – 12:10
P5	23.03.2017	12:10 – 12:35
P6	23.03.2017	12:35 – 13:00
P7	23.03.2017	13:25 – 13:50
P8	23.03.2017	13:50 – 14:15
P9	23.03.2017	14:15 – 14:40
P10	23.03.2017	15:00 – 15:25

7.4.5 Durations

Twenty-five minutes were reserved for each session. However the lengths of sessions were between fourteen to twenty minutes (Table 7.6). The average of session duration was 16.5 minutes. Therefore the reserved time interval for each session was enough to both session period itself and the preparations for the next session. The session periods were appropriate in length since children between those years of age

have limited time of concentration and may get bored to continue play with the toy set for a longer period of time.

Table 7. 6 Duration of each session

	Duration of the session
P1	19 minutes
P2	14 minutes
P3	17 minutes
P4	15 minutes
P5	14 minutes
P6	16 minutes
P7	17 minutes
P8	17 minutes
P9	15 minutes
P10	20 minutes

7.4.6   Data Collection Method

Sessions were recorded with a video camera, Canon Legria HFG30, which was placed in front of the participant and the researcher with the help of a tripod. It mainly focused from above the toy sets, the participant and the researcher therefore only the toy sets, accessories and the hand movements of the participant and the researcher were in the frame of the video camera (Figure 7.2). This positioning of the camera gave a chance to focus only on what the study requires without making the identity of the participant visible.

Figure 7. 11 Positioning of the video camera and the setting during the sessions.

Moreover while observing the participant, checklists about toy sets and accessories were filled by the researcher. Two different checklists were filled during sessions based on participants' preferences and opinions. One checklist is about the comparison of toy sets and accessories as being girl-specific, boy-specific, gender-neutral or ambiguous (Appendix C). And the other checklist is about the accessories relations with toy sets (Appendix D). The checklists gave a chance to get more accurate, neat and organized data about the preferences and opinions of the participants.

The semi-structured interviews were not recorded with an extra tape but just with the camera monitoring the session. Besides important parts of the speeches were recorded manually by taking notes.

CHAPTER 8

EMPIRICAL STUDY DATA ANALYSIS AND RESULTS

As a result of the study, the raw data of 164 minutes video recording and twenty checklists, including two checklists for each participant, were obtained by the researcher. The researcher watched the video records of the participants four times. In the first and second rounds, the missing parts of the checklists were filled. In the third round, the researcher took notes about the gender-related design features that each participant raised as the reasons for his/her preferences and opinions. In the last round, the important parts of the speeches of participants were noted. After this process of organizing the raw data obtained from the main study sessions, many different analyses were carried out by generating tables.

The first analysis consists of two tables generated to see the overall opinions of the participants about the gender-related design features of the toy sets and accessories separately. Furthermore, for each table, the issue of gender about the toy sets was taken into hand by generating another table that demonstrates the opinions of the male and female participants separately.

The second analysis is on the preferences and opinions of the participants about the relationship between toy sets and accessories. This issue was also analyzed with the help of the tables generated both for overall participants and male and female participants separately.

The third analysis is on the participants' primary preferences among toy sets to play with, which was analyzed by generating both a table with all participants included and a table with male and female participants separately.

The last analysis includes gender-related design features that were raised by the participants as reasons for their preferences and opinions about gender-related categorizations. These were investigated based on all participants' frequency of saying of each design feature. Similar to the other analyses, the gender of the participants was also kept in mind in this analysis.

8.1 Gender-Related Categorizations of the Participants

This part is taken in hand in two sections. The first section is about the gender-related categorizations of the participants among the toy sets used in the study. The second section is about the gender-related categorizations of the participants among the accessories used in the study.

8.1.1 Gender-Related Categorizations of the Participants among the Toy Sets

Table 8.1, generated from the opinions of the participants, demonstrates the number of participants categorizing each toy set as girl-specific, boy-specific, gender-neutral and ambiguous.

Table 8. 1 Number of times toy sets are categorized as girl-specific, boy-specific, gender-neutral and ambiguous.

Toy Sets		Girl-specific	Boy-specific	Gender-neutral	Ambiguous
TS1 Knight Castle			7	3	
TS2 Farm		1	1	8	
TS3 Princess Chateau		9		1	
TS4 Airport			6	4	

The findings indicate that the knight castle is mostly considered as a boy-specific toy as seven out of ten participants categorized the knight castle as boy-specific. The other three participants specified the knight castle as gender-neutral. The airport is another toy set that is categorized as boy-specific by the majority (n=6) of the participants. Four of the participants emphasized that the airport is gender-neutral. On the other hand, the only toy set that is categorized as girl-specific, is the princess chateau. However, the princess chateau is ranked as girl-specific by the great majority (n=9) of the participants of the study. Just one participant noted the princess chateau as gender-neutral. Furthermore, the farm is the only toy set categorized as gender-neutral by the majority (n=8) of the participants of the study. While the other one participant emphasized it as girl-specific, the last participant emphasized it as boy-specific. Moreover no participant categorized any of the toy sets as ambiguous in this study.

The following table (Table 8.2) shows the number of male and female participants' categorization of the toy sets as girl-specific, boy-specific, gender-neutral and ambiguous separately. The table lays out that the knight castle is categorized as boy-specific more by female participants (n=4) than male participants (n=3) and as gender-neutral more by male participants (n=2) than female participants (n=1). Moreover, while all male participants (n=5) classified the princess chateau as girl-specific, majority (n=4) of the female participants classified the princess chateau as girl-specific. The only participant who categorized the princess chateau as gender-neutral is female. Furthermore, while more male participants (n=4) than female participants (n=2) categorized the airport as boy-specific, more female participants (n=3) than male participants (n=1) categorized the airport as gender-neutral. On the other hand, the same number of female and male participants categorized the farm as gender-neutral in the study. Additionally, while one male participant categorized the farm as boy-specific, one female participant categorized it as girl-specific.

Table 8. 2 Number of times toy sets categorized as girl-specific, boy-specific, gender-neutral and ambiguous by male and female participants separately.

Toy Sets		Girl-specific		Boy-specific		Gender-neutral		Ambiguous	
		Female	Male	Female	Male	Female	Male	Female	Male
TS1 Knight Castle				4	3	1	2		
TS2 Farm		1			1	4	4		
TS3 Princess Chateau		4	5			1			
TS4 Airport				2	4	3	1		

8.1.2 Gender-Related Categorizations of the Participants among the Accessories

The following table (Table 8.3) demonstrates the participants' categorization of the accessories as girl-specific, boy-specific, gender-neutral and ambiguous.

The categorization of the participants among accessories shows that the accessories in the study were mostly categorized as girl-specific (n=4), boy-specific (n=7) or gender-neutral (n=6). Only the airport traffic sign was categorized as ambiguous by just one participant in the study. The accessories that were categorized as girl-specific by most of the participants were the horses of carriage, the female farmer, the bed and the prince. The accessories that were categorized as boy-specific by most of the participants were the knight horse, the male fire fighter, the gray male knight, the cannon carriage, the fire engine, the black male knight and the cannon ball. On the other hand, most of the participants in the study categorized the pink plane, the tree, the stepladder, the airport traffic sign, the purple coach and the sheep as gender-neutral.

Table 8. 3 Number of times accessories categorized as girl-specific, boy-specific, gender-neutral and ambiguous.

Accessories		Girl-specific	Boy-specific	Gender-neutral	Ambiguous
A1 Horses of carriage		6	1	3	
A2 Pink plane		1	3	6	
A3 Cow		2	3	5	
A4 Knight horse		1	6	3	
A5 Princess		10			
A6 Male fire fighter			9	1	
A7 Female farmer		6		4	
A8 Grey male knight			7	3	
A9 Bed		8		2	
A10 Tree			1	9	
A11 Stepladder			4	6	

Table 8.3 (Continued)

A12 Airport traffic sign			3	6	1
A13 Cannon carriage			9	1	
A14 Horse carriage		10			
A15 Fire engine			9	1	
A16 Tractor with trailer			5	5	
A17 Black male knight		1	7	2	
A18 Prince		8		2	
A19 Female police		2	3	5	
A20 Male farmer		1	4	5	
A21 Pink chest		5		5	
A22 Cannon ball			6	4	
A23 Purple coach		1	2	7	
A24 Sheep			2	8	

The princess and the horse carriage are the only two accessories in the study that were categorized as girl-specific by all the participants of the study. Furthermore there is not any accessory in the study that was categorized as boy-specific or gender-neutral by all the participants of the study. Moreover while the male fire fighter, the tree, the stepladder, the airport traffic sign, the cannon carriage, the fire engine, the tractor with trailer, the cannon ball and the sheep were never categorized as girl-specific, the bed, the prince and the pink chest were never categorized as boy-specific. Five out of ten participants categorized the cow, the female police and the male farmer as gender-neutral in the study.

Table 8. 4 Number of times accessories are categorized as girl-specific, boy-specific, gender-neutral and ambiguous by male and female participants separately.

Accessories		Girl-specific		Boy-specific		Gender-neutral		Ambiguous	
		Female	Male	Female	Male	Female	Male	Female	Male
A1 Horses of carriage		3	3	1		1	2		
A2 Pink plane			1	1	2	4	2		
A3 Cow		1	1	1	2	3	2		
A4 Knight horse			1	2	4	3			
A5 Princess		5	5						
A6 Male fire fighter				5	4		1		
A7 Female farmer		2	4			3	1		
A8 Grey male knight				3	4	2	1		
A9 Bed		4	4			1	1		
A10 Tree					1	5	4		
A11 Stepladder				1	3	4	2		
A12 Airport traffic sign				2	1	3	3		1

Table 8.4 (Continued)

A13 Cannon carriage				5	4		1		
A14 Horse carriage		5	5						
A15 Fire engine				4	5	1			
A16 Tractor with trailer				2	3	3	2		
A17 Black male knight		1		3	4	1	1		
A18 Prince		3	5			2			
A19 Female police			2	1	2	4	1		
A20 Male farmer		1		1	3	3	2		
A21 Pink chest		2	3			3	2		
A22 Cannon ball				1	5	4			
A23 Purple coach			1	1	1	4	3		
A24 Sheep					2	5	3		

When we examine the categorization of the accessories as girl-specific, boy specific, gender-neutral and ambiguous by male and female participants separately as shown

in Table 8.4, it is seen that the only participant who categorized the airport traffic sign as ambiguous is male. While the female farmer (n=4, 2), the prince (n=5, 3) and the pink chest (n=3, 2) were categorized as girl-specific more by male participants than female participants, the pink plane (n=1), the knight horse (n=1), the female police (n=2) and the purple coach (n=1) were categorized as girl-specific only by male participants. On the other hand, the black male knight (n=1) and the male farmer (n=1) were classified as girl-specific only by female participants. Moreover, the same number of female and male participants categorized the horses of carriage (n=3), the cow (n=1) and the bed (n=4) as girl-specific.

While the male fire fighter (n=5, 4), the airport traffic sign (n=2, 1) and the cannon carriage (n=5, 4) were categorized as boy-specific more by female participants than male participants, only female participants categorized the horses of carriage (n=1) as boy-specific. On the other hand while the pink plane (n=2, 1), the cow (n=2, 1), the knight horse (n=4, 2), the grey male knight (n=4, 3), the stepladder (n=3, 1), the fire engine (n=5, 4), the tractor with trailer (n=3, 2), the black male knight (n=4, 3), the female police (n=2, 1), the male farmer (n=3, 1) and the cannon ball (n=5, 1) were categorized as boy-specific by more male participants than female participants, only male participants in the study categorized the tree (n=1) and the sheep (n=2) as boy-specific. Furthermore the same number of female and male participants categorized the purple coach (n=1) as boy-specific.

Lastly, while more male participants than female participants categorized horses of carriage (n=2, 1) as gender-neutral, the male fire fighter (n=1) and the cannon carriage (n=1) were categorized as gender-neutral only by male participants. On the other hand, while more female participants than male participants categorized the pink plane (n=4, 2), the cow (n=3, 2), the female farmer (n=3, 1), the grey male knight (n=2, 1), the tree (n=5, 4), the stepladder (n=4, 2), the tractor with trailer (n=3, 2), the female police (n=4, 1), the male farmer (n=3, 2), the pink chest (n=3, 2), the purple coach (n=4, 3) and the sheep (n=5, 3) as gender-neutral, the knight horse (n=3), the fire engine (n=1), the prince (n=2) and the cannon ball (n=4) were

categorized as gender-neutral only by female participants. Additionally the same number of female and male participants categorized the bed (n=1), the airport traffic sign (n=3) and the black male knight (n=1) as gender-neutral.

8.2 Replacement of the Accessories to the Toy Sets

Table 8.5 demonstrates the number of participants that replace each of the accessories to the toy sets. To analyze this table a two-step process was followed. Firstly, the toy sets were taken into hand and which toy sets include which accessories were examined. Next the accessories were taken into hand and how the participants replaced each of them into the certain toy sets was examined.

8.2.1 From the Point of the Toy Sets

According to Table 8.5, participants replaced 15 accessories to the knight castle in total and 9 accessories were not associated with the knight castle. The horses of carriage (n=1), the knight castle (n=6), the princess (n=1), the female farmer (n=1), the grey male knight (n=7), the bed (n=1), the tree (n=1), the stepladder (n=4), the cannon carriage (n=8), the fire engine (n=1), the black male knight (n=7), the female police (n=4), the male farmer (n=2), the pink chest (n=1) and the cannon ball (n=7) were the accessories replaced to the knight castle. The pink plane, the cow, the male fire fighter, the airport traffic sign, the horse carriage, the tractor with trailer, the prince, the purple coach and the sheep were not thought as accessories of the knight castle by the participants.

On the other hand, while 18 accessories were related to the farm, 6 accessories were not related to this toy set by the participants. The related accessories by participants are the horses of carriage (n=1), the cow (n=10), the knight horse (n=2), the male fire fighter (n=3), the female farmer (n=9), the bed (n=1), the tree (n=9), the stepladder (n=6), the cannon carriage (n=2), the fire engine (n=5), the tractor with trailer (n=7), the prince (n=2), the female police (n=1), the male farmer (n=8), the pink chest (n=1), the cannon ball (n=3), the purple coach (n=1) and the sheep (n=10). The

accessories that were not related to the farm are the pink plane, the princess, the grey male knight, the airport traffic sign, the horse carriage and the black male knight.

As for the princess chateau, while participants replaced 10 accessories to the princess chateau, 14 accessories were not replaced to the princess chateau by any participants. The horses of carriage (n=8), the knight horse (n=2), the princess (n=9), the grey male knight (n=3), the bed (n=8), the horse carriage (n=9), the black male knight (n=3), the prince (n=6), the pink chest (n=8) and the purple coach (n=2) were the accessories replaced to the princess chateau. The pink plane, the cow, the male fire fighter, the female farmer, the tree, the stepladder, the airport traffic sign, the cannon carriage, the fire engine, the tractor with trailer, the female police, the male farmer, the cannon ball and the sheep were the accessories that were not related to the princess chateau.

Lastly, while 9 accessories were related to the airport, 15 accessories were not related. Whereas the pink plane (n=10), the male fire fighter (n=7), the airport traffic sign (n=10), the horse carriage (n=1), the fire engine (n=4), the tractor with trailer (n=3), the prince (n=2), the female police (n=5) and the purple coach (n=7) were related; the horses of carriage, the cow, the knight horse, the princess, the female farmer, the grey male knight, the bed, the tree, the stepladder, the cannon carriage, the black male knight, the male farmer, the pink chest, the cannon ball and the sheep were not related to the airport by the participants.

Table 8. 5 Toy set-accessory relationship.
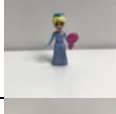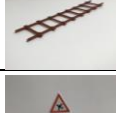
Accessories		TS1	TS2	TS3	TS4
A1 Horses of carriage		1	1	8	
A2 Pink plane					10
A3 Cow			10		
A4 Knight horse		6	2	2	
A5 Princess		1		9	
A6 Male fire fighter			3		7
A7 Female farmer		1	9		
A8 Grey male knight		7		3	
A9 Bed		1	1	8	
A10 Tree		1	9		
A11 Stepladder		4	6		
A12 Airport traffic sign					10
A13 Cannon carriage		8	2		

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Table 8.5 (Continued)

A14 Horse carriage				9	1
A15 Fire engine		1	5		4
A16 Tractor with trailer			7		3
A17 Black male knight		7		3	
A18 Prince			2	6	2
A19 Female police		4	1		5
A20 Male farmer		2	8		
A21 Pink chest		1	1	8	
A22 Cannon ball		7	3		
A23 Purple coach			1	2	7
A24 Sheep			10		

8.2.2 From the Point of the Accessories

When Table 8.5 is examined in terms of the accessories, it is seen that while the horses of carriage (n=8) was thought as the accessory of the princess chateau by most of the participants, one participant replaced it to the knight castle and one replaced it

to the farm. The knight horse was replaced to knight castle by most of the participants (n=6). The other two participants considered the knight horse as the accessory of the farm and the last two participants considered it as the accessory of the princess chateau. For the princess, the great majority of the participants (n=9) thought that it is the accessory of the princess chateau. On the other hand only one participant replaced the princess to knight castle. While seven out of ten participants replaced the male fire fighter to the farm, the rest three replaced it to the farm. The female farmer was thought to be the accessory of the farm by the great majority of the participants (n=9). There was just one participant who replaced the female farmer to knight castle. Furthermore, while seven participants considered the grey male knight as the accessory of knight castle, three participants considered that it belongs to the princess chateau. The bed was thought to belong to the princess chateau by the great majority of the participants (n=8). From among the rest, one participant thought that it belongs to knight castle and the final one thought that it belongs to the farm.

There were nine participants replacing the tree to the farm and just one participant replacing it to knight castle. Moreover, while four participants thought the stepladder as the accessory of knight castle, the remaining six participants thought it as the accessory of the farm. Majority of the participants (n=8) replaced the cannon carriage to knight castle. The other two participants replaced the cannon carriage to the farm. While the horse carriage was replaced to the princess chateau by the great majority of the participants (n=9), there was just one participant replacing it to the airport. While there were five participants considering the fire engine as the accessory of the farm, four participants considered it as the accessory of the airport and one participant considered it as the accessory of knight castle. Next, while seven out ten participants replaced the tractor with trailer to the farm, the remaining three participants replaced it to the airport. The majority of the participants (n=7) considered the black male knight to belong to knight castle and the remaining three participants considered it to belong to the princess chateau. There were two participants who replaced the prince to the farm, two participants who replaced it to the airport and six participants who replaced it to the princess chateau. Additionally,

the female police was replaced to knight castle by four participants, to the farm by one participant and to the airport by five participants. While the majority of the participants (n=8) replaced the male farmer to the princess chateau, the remaining two participants replaced it to knight castle. The pink chest was considered to belong to knight castle by one participant, to the farm by one participant and to the princess chateau by eight participants. While seven participants thought the cannon ball as the accessory of knight castle, three participants thought it as the accessory of the farm. There was one participant who replaced the purple coach to the farm, two participants who replaced it to the princess chateau and seven participants who replaced it to the airport.

There were not any accessories that were replaced to all of the toy sets by different participants, however there were a few accessories replaced to just one toy set by all of the participants. The pink plane and the airport traffic sign were thought as the accessory of the airport, and the cow and the sheep were thought as the accessory of the farm by all the participants in the study.

Table 8.6 demonstrates the replacement of accessories to the toy sets by male and female participants separately. According to this table, while all the female participants put the horses of carriage to the princess chateau, three of the male participants thought the horses of carriage as the accessory of the princess chateau. While one of the remaining male participants put it to knight castle, the last one put it to the farm.

Table 8. 6 Toy set-accessory relationship by male and female participants separately.

Accessories		TS1		TS2		TS3		TS4	
		Female	Male	Female	Male	Female	Male	Female	Male
A1 Horses of carriage			1		1	5	3		
A2 Pink plane								5	5
A3 Cow				5	5				
A4 Knight horse		3	3	1	1	1	1		
A5 Princess			1			5	4		
A6 Male fire fighter				1	2			4	3
A7 Female farmer			1	5	4				
A8 Grey male knight		3	4			2	1		
A9 Bed			1		1	5	3		
A10 Tree			1	5	4				
A11 Stepladder		1	3	4	2				
A12 Airport traffic sign								5	5

Table 8.6 (Continued)

Item		1	2	3	4	5	6	7	8
A13 Cannon carriage		4	4	1	1				
A14 Horse carriage						5	4		1
A15 Fire engine		1		2	3			2	2
A16 Tractor with trailer				3	4			2	1
A17 Black male knight		3	4			2	1		
A18 Prince				1	1	2	4	2	
A19 Female police		3	1		1			2	3
A20 Male farmer			2	5	3				
A21 Pink chest		1			1	4	4		
A22 Cannon ball		4	4	1	1				
A23 Purple coach					1		2	5	2
A24 Sheep				5	5				

Same number of male and female participants thought the knight horse as the accessory of the knight castle (n=3, 3), as the accessory of the farm (n=1, 1) and as the accessory of the princess chateau (n=1, 1). No male or female participants

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replaced the knight horse to the airport. Female participants thought more than male participants that the princess was the accessory of the princess chateau (n=5, 4). Only one male participant replaced the princess to the knight castle. Moreover, while more female participants than male participants considered the male fire fighter as the accessory of the airport (n=4, 3), more male participants than female participants considered it as the accessory of the farm (n=2, 1). More female participants than male participants replaced the female farmer to the farm (n=5, 4). The only one participant replacing the female farmer to the knight castle was male. The accessory the grey male knight was replaced to the knight castle (n=4, 3) by more male participants than female participants and replaced to the princess chateau (n=2, 1) by more female participants than male participants.

Next, while all the female participants considered the bed as the accessory of the princess chateau, three of the male participants thought so. One male participant thought the bed as the accessory of the knight castle, whereas the last male participant thought it as the accessory of the farm. While all the female participants replaced the tree to the farm, four male participants replaced it to the farm and one male participant replaced it to the knight castle. More female participants than male participants thought the stepladder as the accessory of the farm (n=4, 2), and more male participants than female participants thought it as the accessory of the knight castle (n=3, 1). Same number of male and female participants considered the cannon carriage as the accessory of the knight castle (n=4, 4) and the farm (n=1, 1). While all the female participants replaced the horse carriage to the princess chateau, four male participants replaced it to the princess chateau and one male participant replaced it to the airport. The fire engine was replaced to the farm by three male participants and two female participants, and it was replaced to the airport by two male and two female participants. Only one female participant replaced the fire engine to the knight castle.

While the tractor with trailer was considered as the accessory of the farm by three female participants and four male participants, it was considered as the accessory of

the airport by two female and one male participants. Three female participants and four male participants thought the black male knight as the accessory of the knight castle. On the other hand, two female participants and one male participant thought it as the accessory of the princess chateau. The same number of female and male participants replaced the prince to the farm (n=1, 1). More male participants than female participants replaced the prince to the princess chateau (n=4, 2). In spite of these, the last two female participants replaced the prince to the airport. When the female police is examined, it can be seen that more female participants than male participants considered it as the accessory of the knight castle (n=3, 1) and more male participants than female participants considered it as the accessory of the airport (n=3, 2). On the other hand, one male participant thought it as the accessory of the farm.

While all the female participants in the study thought the male farmer as the accessory of the farm, three male participants also thought so. And the other two male participants thought the male farmer as the accessory of the knight castle. The pink chest was replaced to the princess chateau by the same number of female and male participants (n=4, 4). However while the last female participant replaced the pink chest to the knight castle, the last male participant replaced it to the farm. The same number of female and male participants thought the cannon ball as the accessory of the knight castle (n=4, 4) and the farm (n=1, 1). Furthermore, while all the female participants considered the purple coach as the accessory of the airport, two male participants also considered it so. The other two male participants replaced the purple coach to the princess chateau and the last male participant replaced it to the farm.

8.3 Participants' Primary Preferences to Play with among the Toy Sets

All the participants in the study were expected to prefer a toy set and play with it for a while through the end of the session. In the table below (Table 8.7), primary preferences of the participants among toy sets are demonstrated.

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When the table is examined, it can be understood that the airport was not preferred to play with by any of the participants in the study. On the other hand the knight castle is the toy set that was most preferred by the participants (n=5). The next mostly preferred toy set was the princess chateau (n=4). Lastly, the farm was the toy set which is in the primary preferences of only one participant.

Table 8. 7 Participants' primary preferences among toy sets.

Toy Sets		Number of Participants (n=10)
TS1 Knight Castle		5
TS2 Farm		1
TS3 Princess Chateau		4
TS4 Airport		

The table below (Table 8.8) demonstrates the primary preferences of the male and female participants separately. When the preferences of male and female participants are examined separately, it can be seen that the only participant preferring the farm as the toy set to play with was male. Furthermore the other four male participants preferred to play with the knight castle. On the other hand, while the all four participants preferring the princess chateau to play with were female, just one female participant preferred to play with the knight castle.

Table 8. 8 Participants' primary preferences among toy sets by male and female participants separately.

Toy Sets		Number of Participants (n=10)	
TS1 Knight Castle		Male	4
		Female	1
TS2 Farm		Male	1
		Female	
TS3 Princess Chateau		Male	
		Female	4
TS4 Airport		Male	
		Female	

8.4 Design Features Affecting the Gender of the Toy Sets and the Accessories Mentioned by the Participants

During sessions, with the help of the laddering technique, the design features affecting the participants' gender related categorizations of the toy sets and the accessories were found out. In order of frequency of mention, these design features were theme, color, figure, graphic application and figure accessories. These design features are similar with the design features determined with the help of the product investigation carried out in toy stores (Chapter 6, Section 6.2).

8.4.1 Theme (f=46)

Theme of the toy sets and accessories was mentioned forty-six times by all participants (n=10) in the study as their reason behind their gender-related categorizations.

Participants made gender-related categorizations based on theme for the knight castle for three times (P1, P7 and P9) in this study. Two participants considered the knight castle as a boy-specific toy because of the fact that it is a castle and has a theme of

war, which is not a play that girls like. On the other hand one participant considered the knight castle as gender-neutral because of the fact that in castles there were some people like kings and queens. And this play can catch the interest of both boys and girls.

The farm was categorized as girl-specific, boy-specific, gender-neutral or ambiguous based on its theme for two times (P1 and P7). While one participant thought that the theme of farm having old people inside is a theme that just boys like to play with, the other participant categorized the farm as gender-neutral because of the fact that the theme of farm does not bare wars which is a theme that girls do not like.

For the princess chateau, participants mentioned its theme as reason for their gender-related categorizations for five times (P1, P4, P5, P7 and P9). All of these five participants thought the princess chateau is a girl-specific toy because of the fact that its theme is about princesses and princess is what girls want to play with.

For the last toy set the airport, participants made gender-related categorizations based on theme for four times (P1, P5, P7 and P10). All four participants mentioned that the farm, which is an airport where there many vehicles can be found, is a toy for boys because of the fact that girls do not want to play with vehicles.

When the reasons behind gender-related categorizations of accessories were examined, it can be seen that the horses of carriage, the female farmer, the tree, the female police, the male farmer, the pink chest and the sheep were not categorized as girl-specific, boy-specific, gender-neutral or ambiguous based on their theme by any of the participants.

The pink plane was categorized as gender-neutral because of its theme and color by two of the participants (P1 and P3). These participants mentioned the theme and color of the pink plane as reasons for being both for girls and boys. The cow was categorized as girl-specific based on its theme by just one participant in the study (P10). The participant mentioned that girls like to play with animals. Similarly, the knight horse was categorized as boy-specific based on its theme by only one

participant (P7). The participant mentioned reason of this categorization as a horse is used in wars. The princess was categorized based on its theme three times by the participants (P1, P5 and P8). All these three participants categorized the princess as girl-specific because of the fact that the princesses were for girls and girls like to play with them. For the male fire fighter, only one participant (P6) made a gender-related categorization based on its theme. This participant categorized the male fire fighter as boy-specific and mentioned that in fire stations there are no women, which makes the theme for boys only. The grey male knight was categorized based on its theme by four participants (P1, P2, P6 and P7). All four participants categorized the grey male knight as a boy-specific toy because of the fact that it is a knight, knights make war and live in castles. Participants mentioned that these are the themes that boys like and girls do not like.

The bed was categorized as girl-specific based on its theme by two participants (P5 and P9). These two participants mentioned that the bed is a bed with ornaments that makes it a princess bed used in chateaus therefore girls like to play with it. For the stepladder, only one participant (P1) made a gender-related categorization based on its theme. The participant categorized the stepladder as boy-specific because of the fact that it is used mostly by older people who are found in farms. Similarly, the airport traffic sign was categorized as boy-specific based on its theme by one participant (P3). The participant mentioned that the airport traffic sign is a toy about traffic and boys like to play with toys related to traffic like signs, vehicles, etc. On the other hand, two participants (P1 and P7) categorized the cannon carriage as boy-specific based on its theme. These two participants mentioned that the cannon carriage is used in wars to destroy and this type of play is liked by boys and is not liked by girls. Moreover, the horse carriage was categorized based on its theme by five participants in the study (P3, P6, P7, P8 and P9). All five participants categorized the horse carriage as girl-specific because of the fact that it is a horse carriage used in chateaus for princesses. The fire engine was categorized based on its theme by three participants (P7, P9 and P10). All three participants categorized it as boy-specific because of the fact that they thought that girls do not like to play with

vehicles. Similar to the fire engine, one participant (P10) made a gender-related categorization for the tractor with trailer based on its theme. The participant mentioned that the tractor with trailer is a vehicle, and so girls do not like to play with them. Furthermore, one participant (P1) categorized the black male knight as boy-specific based on its theme. The participant told that knights make war and girls do not like war-themed toys.

Similarly, one participant (P8) categorized the prince as girl-specific based on its theme. It is mentioned that the prince is a prince who lives in chateaus with princesses. For the cannon ball, gender-related categorization was made by two participants (P1 and P6) based on its theme. Both of the participants categorized the cannon ball as boy-specific because of the fact that cannon balls are related to wars and girls do not play with toys, which have war theme. Lastly two participants (P1 and P10) categorized the purple coach based on its theme. One participant mentioned that the purple coach is gender-neutral because of the fact that while its color can be liked by girls, boys like to play with vehicles since they relate to traffic. The other participant mentioned that the purple coach is just a boy-specific toy because of the fact that it is a vehicle and relates to traffic no matter what color it is.

8.4.2 Color (f=31)

Color of the toy sets and accessories was mentioned thirty-one times by eight participants (P1, P2, P3, P5, P6, P8, P9 and P10) in the study as their reason behind their gender-related categorizations.

The knight castle, the farm and the airport were not categorized as girl-specific, boy specific, gender-neutral or ambiguous based on its color by any of the participants. Only the color of the princess chateau was related to a gender-related categorization. Four out of eight participants (P1, P2, P6 and P10) categorized the princess chateau as girl-specific based on its pink color. These participants mentioned that toys in pink color are not for boys because boys do not like pink, but girls do really like it.

When the opinions of the participants about accessories is examined, it can be seen that the cow, the male fire fighter, the grey male knight, the tree, the airport traffic sign, the fire engine, the tractor trailer, the black male knight, the female police, the male farmer, the cannon ball, the purple coach and the sheep were not categorized as girl-specific, boy-specific, gender-neutral or ambiguous based on their colors.

However the horses of carriage was categorized based on its color by five of the eight participants (P2, P5, P8, P9 and P10). All these five participants categorized the horses of carriage as girl-specific because of the fact that the colors of the horses are white, blue and yellow and these colors are liked by girls, not by boys. For the pink plane, gender-related categorization based on its color was made by four participants (P1, P3, P9 and P10). While two of them (P1 and P3) mentioned that as the pink plane is a pink airplane, it is gender-neutral, one participant (P9) mentioned that pink toys are for girls, and interestingly the last participant (P10) mentioned that although the pink plane is a pink airplane, boys would like to play with it and it is for boys. P2, P6 and P10 made a gender-related categorization for the knight horse based on its color. All of these participants categorized the knight horse as a toy for boys because of its brown color. Similarly one of them mentioned that girls do not like brown color and boys do, therefore it is for boys.

Only one participant out of eight (P10) categorized the princess as a toy for girls because of its pink color and said that boys do not play with pink princesses. Similarly, P10 is the only participant who made a gender-related categorization for the female farmer based on its color. He mentioned that yellow and green colors are for girls therefore the female farmer is a toy for girls. For the bed, P10 made a gender-related categorization based on its color. He said that the bed is in light blue color and it is a color that is liked by girls but not boys. Again only P10 categorized the stepladder based on its color and mentioned that brown is a color that boys like therefore the stepladder is a toy for boys. P10 is the only participant who made gender-related categorization for the cannon carriage based on its color and said that because of its brown color, girls do not like the cannon carriage and it is a toy for

boys. Likewise the horse carriage was categorized based on its color only by one participant out of eight (P10). He mentioned that because of its pink and light blue color, boys do not like the horse carriage and it is a toy for girls. Four out of seven participants (P1, P6, P9 and P10) made a gender-related categorization for the prince based on its color. All of them mentioned that because of its pink color, the prince is a toy for girls. Lastly, for the pink chest, five participants (P1, P2, P3, P6 and P8) made a gender-based categorization based on its color. Two of them categorized the pink chest as a toy for girls because of its pink color and the other three participants categorized it as gender-neutral. They mentioned that it is a treasure chest for boys and it is pink that makes it a toy for girls.

8.4.3 Figure (f=15)

Figure of the toy sets and accessories was mentioned fifteen times by seven participants (P1, P5, P6, P7, P8, P9 and P10) in the study as their reason behind their gender-related categorizations.

The toy sets were never categorized as girl-specific, boy-specific, gender-neutral or ambiguous based on the features of figures that may be related. Furthermore, the horses of carriage, the pink plane, the cow, the knight horse, the male fire fighter, the bed, the tree, the stepladder, the airport traffic sign, the cannon carriage, the horse carriage, the fire engine, the tractor with trailer, the black male knight, the pink chest, the cannon ball, the purple coach and the sheep were never categorized as girl-specific, boy-specific, gender-neutral or ambiguous based on the features of the figures by any of the participants.

However the princess was categorized based on its gender features by two of the seven participants (P6 and P10). Both of these participants categorized the princess as girl-specific because of the fact that the figure is female. Only one participant out seven (P6) made categorization for the male fire fighter based on it is figure and mentioned that it is male and in fire stations there cannot be females therefore it is for boys. For the female farmer, gender-related categorization based on its figure was

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made by four participants (P1, P6, P7 and P10). All of these participants categorized the female farmer as girl-specific because of the gender of the figure, which is female. While three of them mentioned that the female farmer is for girls because it is female, one participant mentioned that boys do not like the female farmer because it is female. Four out of seven participants (P1, P5, P6 and P9) made gender related categorizations for the grey male knight based on its figure. All of these participants mentioned that the grey male knight is for boys because of the fact that the figure is male. For the prince, only P8 made a categorization based on its figure and mentioned that it is for girls because of the fact that it is a male figure and a prince and husband of a princess. Only two of the seven participants (P7 and P9) made gender-related categorization for the female police based on the features of the figure. Both of them categorized the female police as a girl-specific toy. One of them reasoned that it is a girl toy because of the fact that the police is a female, and the other reasoned that he did not like it because it is female and mentioned that it is for girls. For the male farmer, only P5 made a gender-related categorization based on the features of the figure and mentioned that it is for boys because of the fact that it is male.

8.4.4   Graphic Application (f=7)

Graphic applications of the toy sets and accessories were mentioned seven times by five participants (P1, P2, P5, P8 and P10) in the study as their reason behind their gender-related categorizations.

There were not any toy sets that were categorized as girl-specific, boy-specific, gender-neutral or ambiguous based on their graphic applications. Moreover, participants made a gender-related categorization for only the horse carriage and the pink chest based on their graphic applications. No other accessories used in this study were categorized based on their graphic applications.

For the horse carriage only one participant (P8) made a gender-related categorization based on its graphic applications and she mentioned that because of the fact that

there is a heart on the horse carriage, it is a toy for girls. Furthermore for the pink chest, all of the five participants (P1, P2, P5, P8 and P10) made a gender-related categorization based on its graphic applications. They all mentioned that it is a toy for girls because of the fact that there is a heart on the pink chest.

8.4.5 Figure Accessories (f=1)

Figure accessories of the toy sets and accessories were mentioned one time by one participant (P10) in the study as his reason behind their gender-related categorizations.

There were not any toy sets that were categorized as girl-specific, boy-specific, gender-neutral or ambiguous based on their figure accessories. Moreover, the participant made a gender-related categorization for only the male farmer based on its figure accessories. No other accessories used in this study were categorized based on their figure accessories. For the male farmer, P10 made a gender-related categorization based on figure accessories and mentioned that because of the fact that the hat of P10 is a boy's hat; it is a toy for boys.

CHAPTER 9

CONCLUSION

This study aims to find out how design features of toys affect preferences and opinions of children between 3-6 years old about gender-related categorizations and their reasons behind their preferences and opinions about these design features. With the help of the analysis on the data derived from participant observations and semi-structured interviews done with ten children, including five girls and five boys, preferences and opinions of the children about toys characterized as girl-specific, boy-specific, gender-neutral and ambiguous were tried to be understood. Four toy sets were composed for this main study, using various toys and accessoried that were identified as girl-specific, boy-specific, gender-neutral and ambiguous.

In this last chapter of the thesis, the results obtained from the main study are revisited by responding to the research questions spotlighted earlier in this thesis. Furthermore, in this chapter, some implications for practice are discussed, methodology of the study is reevaluated, limitations of the study are taken into hand and reccomendations for further studies are raised.

9.1 Sub-Questions Revisited

Several sub-questions to help find answer to the main research question were asked in the first chapter of this thesis. In this section, they are revisited and how the study found answers to these sub-questions are discussed.

9.1.1 What are the developmental characteristics of children between 3-6 years of age?

This sub-question was tried to be answered with the help of the review of the literature conducted for this study. According to the literature review, children between 3-6 years of age demonstrate high levels of efficiency in all areas of development, including physical, cognitive, social, emotional and language. To begin with physical development, it can be asserted that they begin to capably control fine and gross motor skills. Although they still have difficulty in using scissors and pencils which are activities requiring fine motor skills, they are candidates of masters of gross motor skills like running, hopping, jumping, etc. Through the end of this period and when they begin elementary school, they demonstrate impetuous development in writing, cutting and other fine motor skills.

For about cognition, children between these years of age show increasing abilities. They are now able to make categorizations based on similarities and differences. They demonstrate increasing thinking abilities, attention and memory. However they are still in limits of egocentric thinking and experience difficulties in thinking from others' point of view.

When the social development of children at this age group is taken into hand, it can be seen that children are now able to feel themselves as part of a social group and begin to engage in play activities with others around them. Thus they begin to form friendships, which nestles playing together, sharing toys and physical appearances.

Children between 3-6 years of age also demonstrate various emotions including happiness, anger, fear and sadness. They are able to control and appropriately express their emotions. They may show attachment to certain objects and feel comfortable with them.

Lastly, for language development, children at this age group show increasing abilities in various language skills with the help of interactions with the people around them. They are now able to form sentences, use tenses and conjunctions,

follow rules and so on. Their vocabulary includes thousands of words. However they still use egocentric speech.

9.1.2 How does gender develop in children at this age group?

The development of gender is the next issue that is examined through the literature review. Based on the review of the literature, it is understood that gender develops very early in life. Babies begin to categorize people around themselves as female or male and when children reach around age three, they are able to categorize themselves as being female or male. And later around five to seven, they start to understand that gender is constant and does not change. Children's learning of the specific roles of their gender is another topic needed to bear in mind while understanding the gender development of children. Furthermore, while some theorists explain the development of gender as a psychoanalytical process, others explain it as a social process, whereas others explain it as cognitive process and still others explain it with the help of the information processing approach.

9.1.3 What is the importance of play and toys as play materials for this age group?

Based on the literature review, it is understood that play has an important effect on children's learning and development, and toys are an important part of play experiences as they trigger and progress play. Play helps children develop their thinking abilities, practice fine and gross motor skills, form friendships, use their language skills, express their emotions and so on. And toys are instruments to help children practice those skills and demonstrate development in all areas of child development.

9.1.4 What are the types of toys in the market for this age group of children?

This sub-question is tried to be answered with the help of a product investigation conducted in different toys stores in the city of Ankara. In Chapter 6, details of this product investigation are given. According to the results of the investigation, a

detailed table (Appendix A), demonstrating types of toys and their characteristics, was generated. Accordingly, toys in the market for this age group were separated into the six main categories of dolls, vehicles, toy sets, dramatic play toys, constructive toys and arts and crafts toys. While dolls were subcategorized as baby dolls, character dolls and animal dolls, character dolls were again subcategorized into action figures and barbie-type dolls. On the other hand, vehicles were subcategorized as toy vehicles and model vehicles; toy sets were subcategorized as vehicle sets, baby doll and barbie-type sets, other toy sets; and dramatic play toys were subcategorized as dramatic play areas and dramatic play props. Moreover constructive toys were subcategorized as those with attachable and those with non-attachable parts, and arts and crafts toys were subcategorized as materials and tools.

9.1.5 What are the design features that make a toy girl-specific, boy-specific, or gender-neutral?

Based on the product investigation, several design features making a toy girl-specific, boy-specific or gender-neutral were identified. With reference to it, girl-specific toys are mainly in soft and pastel colors like pink, lilac, yellow and light blue. Moreover girl-specific toys include themes of home life experiences, activities that nestle nurturing and themes from fairytales. In general, they have use of smooth sounds including laughing, talking, crying, and singing. The figures used in such toys are mainly female adult, teenage or child and toys including many small pieces of accessories. In girl-specific toys, there are many graphic applications including flowers, and some shapes like hearts and stars.

Boy-specific toys in the market are generally in saturated warm and dark colors including black, brown and gray. They have themes of competition, war, rescue, adventure and so on. They have mainly rough and mechanic sounds including shouting, loud laughter, and weapon effects. The figures used in boy-specific toys are nearly always male and adult. Furthermore the accessories used in such toys are not as small as in those used in toys for girls. These toys have graphic applications

like flags, logos and symbols to express speed and power. Lastly, in boy-specific toys mechanical movements are much more used.

On the other hand, gender-neutral toys are mainly in basic and vivid colors like red, green, blue and yellow and have themes of nature, adventure and social life. The sound usage in these toys includes machinery and animal sounds. Both male and female figures are used in such toys.

9.2   Main Research Question Revisited

In the Introduction chapter, a main research question was asked to fulfill the aim of the study. In this section, the answer for the main research question will be discussed based on the results of the main study. The main research question is answered by evaluating the primary toy preferences of the participants, and their categorizations about the gender-related design features. It is also answered by describing the participants' categorizations about gender-related design features of ambiguous toys and about gender-neutral toys used in this study.

9.2.1   Primary Preferences of the Participants about the Four Toy Sets Composed for the Main Study

When primary preferences of the participants are analyzed, it is seen that not only most of the male participants but also one female participant preferred to play with the boy-specific toy set in this study, the knight castle. This suggests that girls may also prefer to play with toy sets that have boy-specific design features. Those who preferred to play with the knight castle mentioned that the movable parts of the toy set, including the movable door, the cannon ball and horse that have movable legs, are the reasons of their preference. Therefore it can be noticed that movable toys and toys that have movable parts are preferred by both boys and girls.

Furthermore four of the girl participants but not any of the boy participants preferred to play with the princess chateau, the girl-specific toy set in this study. It can be understood that the main reason behind why most of the girl participants and none of

boy participants preferred to play with the princess chateau is the dominant color of the toy set. Participants of the study have a common thought that the toys in pink color are for girls and not for boys. Therefore the preferences of the participants to play with a toy set in this study was affected by the color of the toy set. Furthermore, it can be said that boys are more resistive in playing with toys in pink color. Similar with the results of this study, the results of the study done by Wong and Hines (2015), demonstrated that the color of a toy has more effect on boys' preferences than it does on girls' preferences.

Lastly, there was only one male participant who primarily preferred to play with the farm, the gender-neutral toy set in this study. The preference of this participant was based on that the farm bares many things to play with. The situation of the low preference of gender-neutral toys in this study confirms that both boys and girls are inclined to play with toys that have gendered-related design features. In the study done by Wood, Desmarais and Gugula (2002), girls and boys had equal chance to play with both gendered toys and neutral toys, however according to the results of that study, while girls spent more time in playing with girl-specific toys, boys spent more time in playing with boy-specific toys instead of playing with neutral toys. Consistent with the results of that study, the results of this study demonstrate that children prefer to play with gender-specific toys rather than gender-neutral ones.

From the results of the study, about participants' primary preferences, it is seen that while there was a girl who preferred to play with the boy-specific toy, there is not any boy who preferred to play with the girl-specific toy of this study. This result is similar with the results of the earlier studies. For instance, the results of the study done by Green, Bigler and Catherwood (2004) indicate that toy play of girls display a wider range of play experiences from masculine to feminine, whereas toy play of boys are mainly restricted to masculine. Moreover, Bussey (1983), Bussey and Perry (1982) and O'Brien et al. (1983) presented that boys generally avoid playing with girl-specific toys and are much more strictly gendered (as cited in Green, Bigler & Catherwood, 2004).

Accordingly, to sum up, it can be understood that the gender-related design features have effect on both girls' and boys' preferences of the toy sets to play with. Toy sets that are gender-neutral, meaning having no clear gender-specific design features, are almost never preferred by both girls and boys in this study. As a result of the study it is resurfaced that while boys prefer to play with castles that may provide a play scenario about wars, attack and defence, girls prefer to play with a chateau that may provide a play scenario about fairy tales and luxury life.

9.2.2   Children's Categorizations About Gender-Related Design Features

The main focus of this study is how the gender-related design features of toys are affecting opinions of children about the target group that the toys address. To understand toys having certain gender-specific design features were used in this study and participants' categorizations and opinions about them provide information on this focus.

9.2.2.1   Frequency of Mention of the Design Features

In this study, participants mentioned theme, color, figure, graphic applications and figure accessories as the reasons for their gender-related categorizations for toy sets and accessories. According to the frequency of mention, primary features that children think to assign a toy as girl-specific, boy-specific, gender-neutral or ambiguous are determined.

Theme

The theme of the toys, which was mentioned fourty-six times in this study, was the most frequently mentioned reason for gender-related categorizations by both girl and boy participants. This demonstrates that the theme of the toys have much more critical effect on children's gender-related categorizations.

Color

Color of the toys, which was mentioned thirty-one times in this study, was the second most frequently mentioned reason for gender-related categorizations by both girl and boy participants. Consistent with an earlier study carried out by Cherney and Dempsey (2010), in which children categorize neutral and ambiguous toys as girl-specific or boy-specific based mostly on their color, in this study, color of the toys has critical effect on both girls' and boys' gender-related categorizations.

Figure

The gender of the figure, which was mentioned fifteen times in this study, is another critical design feature affecting participants' gender-related categorizations although its frequency of mentioning was lesser than the others. Because, different than the other features, gender of the figure was only pointed out as a reason when the accessory is a figure. However when the frequency of mentioning is examined among all the figures used in the study, its critical effect on gender-related categorizations becomes apparent. Moreover figure accessories as a design feature was mentioned only one time in this study and that was a stylistic-based reason as the hat of the farmer was thought to be used only by a female.

Graphic Applications

Graphic applications, which was mentioned seven times in this study, is another reason of gender-categorizations. However only hearts on toys as graphic applications were pointed out as a reason in this study for relating to gender. On the hand, graphic applications on the other toy sets and accessories like emblems on knights and fire engine were not raised as a reason for their gender-related categorizations by the participants.

9.2.2.2 Design Features Affecting Gender-Related Categorizations of Toy Sets and Accessories

According to the results of this study, when the gender-related categorization of toy sets used in study is examined, it is understood that there is a clear opinion by most

of the girl and boy participants that pink is a color for girls and only girls like to play with toys in pink color, which is the dominant color palette of the princess chateau. However dark colors like gray, brown and black, which are included in the dominant color palette of the knight castle, are never directly attributed to boys by both girl and boy participants of this study. Instead, the theme of the toy, war theme, is mainly attributed to boys. Therefore pink color and war theme of the toy sets are much more discriminative features than the others for the participants' gender-related categorizations in this study. The gender-neutral toy set of the study, the farm was categorized as gender-neutral by most of the girl and boy participants. This means that because of the fact that the farm has no clear clue with its color and theme to address any of the gender, both girls and boys in this study thought that everyone can play with this toy set.

Color

When the accessories used in this study is examined, color of those, especially the pink color, is also a discriminative feature for gender-related categorizations according to the participants. The pink color has much more effect on gender-related categorizations than any other color in this study. Moreover the colors pink and lilac are much more indicative of girl-specific for boys than girls. Similarly, the colors like black, brown and gray are also much more indicative of boy-specific for boys than girls among the accessories in this study. More girl participants than boy participants demonstrated milder categorizations and assigned toys in these colors also as gender-neutral. For example, for the brown horse and stepladder, while more boy participants categorized it as boy-specific, more girl participants categorized it as gender-neutral. This demonstrated that in this study color of the accessories used in this study had more effect on boys than girls on their gender-related categorizations.

Theme

Furthermore, the results of the study also show that the theme of the toys clearly makes both girl and boy participants in this study do gender-related categorizations.

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For the accessories with themes like war, attack, defence and rescue, including cannon carriage, fire engine and knights, most of the participants, both girls and boys, made a categorization as boy-specific. Next, for the accessories with themes like domestic and luxury life, including bed, horse carriage and princess, most of the participants, both girls and boys, made a categorization as girl-specific.

Figure

Moreover, both girl and boy participants mainly thought that if a toy figure is female, this means that the toy is for girls and if a toy figure is male, this means that the toy is for boys. According to this, participants in this study categorized figures in the toy sets mostly as being a girl-specific or boy-specific toy and leastly as being gender-neutral. However participants who categorized those figures as gender-neutral generally failed to explain their reason behind their categorizations. Only a girl participant explained her reason for gender-neutral categorization and said that because it a police it is for boys and it is a woman, it is for girls. On the other hand many participants categorized a figure as being a girl-specific toy and explained its femininity as their reason and as being boy-specific toy and explained its masculinity as their reason. For example participants who categorized female farmer as being girl-specific mentioned their reason as it is female. This demonstrates that the gender of the toy figures have an important effect on both girls' and boys' gender-related categorizations of toys.

9.2.3 Children's Categorizations about Gender-Related Design Features of Ambiguous Toys

In this study, ambiguous toys uncovered more points about girls' and boys' gender-related categorizations about design features. This is due to the fact that they provided a chance for participants to rethink about the gender of those toys as they address one gender with a design feature and the other gender with another design feature. Therefore ambiguous toys assist to compare which gender-related design feature is more determining for both boys' and girls' gender-related categorizations.

For all ambiguous toys used in this study, more boy participants than girl participants demonstrated gendered categorizations than gender-neutral or ambiguous categorizations.

Accordingly, this study demonstrates that theme and color of the toys have largest effect on gender-related categorizations of children. However in some of the ambiguous toys used in this study, while the color of the toy points at one gender, the theme points at the other gender. Therefore in such situations, participants experienced difficulty in assigning it to a gender-specfic categorization. Even so most of the ambiguous toys were categorized as gender-neutral in this study. However it is also clear that while most of the girl participants categorized those as gender-neutral, boys also demonstrated an inclination to categorize them as boy-specific. For example while most of the girls categorized the pink plane as gender-neutral, most of the boys made a gendered categorization for the pink plane as being girl-specific or boy-specific. Similarly, the number of the girls who categorized purple coach as gender-neutral is more than the number of the boys who categorized it as gender-neutral. In other words, boys again demonstrated more gendered categorizations than girls for the purple coach.

Although gender of a toy figure has important effect on gender-related categorizations of the participants, for toy figures having ambiguous features like pink prince, female police and female farmer, gender-related categorizations differed. While the pink prince was categorized as girl-specific by all of the boys although the prince is male, girls also categorized it as gender-neutral. Therefore this demonstrates that the color of the toy has more effect on boys' gender-related categorizations than the gender of the figure. On the other hand, the female police was categorized as gender-neutral by most of the girls in this study, however, most of the boys did not categorize it as gender-neutral. They mostly categorized it either as girl-specific or boy-specific. Theme and gender of a figure have more effect on boys to make gendered categorizations, but girls are milder and incline to categorize it as gender-neutral. Similarly, for female farmer, while most of the girls in this study

categorized it as gender-neutral, most of the boys categorized it as girl-specific because of its gender. For all of these situations, the gender-related features of the toy figures have more effect on boys than girls.

9.2.4 Children's Categorizations about Gender-Neutral Toys

In this study, some gender-neutral toys were used, which have no clear clue as to being either girl-specific or boy-specific, including cow, tree and sheep. All of these toys were categorized more times as being gender-neutral than girl-specific or boy-specific by most of the participants. However boys more than girls demonstrated a tendency to categorize gender-neutral toys as being specific for their own gender. Moreover, the gender-neutral toy set of the study, the farm, was categorized as gender-neutral by most of the girl and boy participants. The results of this study revealed that gender-neutral toys made both girl and boy participants think that those toys were suitable for them to play with. Similarly Yeung and Wong (2018) suggest that it is important not to make gender-labels to the toys and to eliminate the differentiation in color of toys and to make use of wide range of colors in toys.

9.3 Implications for Practice

There are certain implications of the findings of this study for practice to address toys that serve both girls and boys. These findings will be helpful for designers to take into account while designing a toy addressing both genders, for families to provide their children different play and toy experiences, for educators to carefully plan their preschool classrooms so that all students including girls and boys equally benefit from the toys inside.

First of all, it is clear that gender-related design features make both girls and boys prefer only certain types of toys and toys with certain features, while avoiding the others. Therefore, it is important for the practioners to bear in mind to avoid toys having gender-related design features. Furthermore although ambiguous toys seems that they address one gender with a design feature and the other gender with another

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design feature, this study demonstrated that ambiguous toys often fail to address both genders. Instead children mostly categorize ambiguous toys either girl-specific or boy-specific. Therefore, to make all children benefit from different type of toys designers should avoid gender-based design features and design gender-neutral toys, educators and families should provide gender-neutral toys for their students and children. As this study revealed, gender-neutral toys are toys, which are categorized as a toy for both genders by most of the girls and boys.

Moreover, this study clearly demonstrated that boys make more gendered categorizations than girls for all toys, and girls categorized more as gender-neutral than boys. This finding shows that boys are more inclined to make gender-based categorizations than girls and gender-based design features have more effect on boys' gendered-categorizations than girls. Next, this study demonstrated that boys seem much more consistent in playing with toys having boy-specific design features and they nearly always did not prefer the toys that have girl-specific design features.

Therefore it is important to take care of boys' highly gender-related opinions and categorizations while designing a toy as toy designers and choosing a toy as educators and families.

However, it is also revealed with this study that some design features are more distinctive in addressing any gender than the others. Foremost, color is a very important feature that makes children prefer or avoid to play with a certain toy. In this context, the pink color is much more determining than the other colors and it affects the toy preference of boys more than girls. Moreover girls' toy preference is less affected by colors when compared to boys' preferences. Although girls sometimes demonstrated inclination to categorize toys with dark colors like gray and brown as gender-neutral which are mainly the colors of boy-specific toys, boys almost every time categorized a pink toy as girl-specific. Therefore it is especially important to avoid pink-based color pallettes in toys to make boys also prefer playing with them. As this study revealed, theme is another most determining design feature

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that makes children prefer or avoid to play with a certain toy. Similar with color of toys, this study revealed that theme of the toys has more effect on boys' gender-based categorizations than girls as boys spotlighted themes of toys as a reason for their categorizations more times than girls. Accordingly, in this study especially boys thought that toys that have war and competition themes are for boys and toys that have luxury life themes are for girls. Therefore theme is another important design feature to think about while designing and choosing toys. Furthermore although graphic applications were mentioned few as a reason for gender-based categorizations, all mentions are about the heart figures on toys. Even though there are some other graphic applications on toys like fire, animal figures and flags, those were never mentioned by either girls or boys. Therefore the study demonstrated that the figure of heart is more determining than the other figures. It becomes important to bear in mind the careful usage of heart as graphic application while designing and choosing toys for both girls and boys.

Moreover, moveable parts of the toys attract attention of both girls and boys. This may be because of the fact that moveable parts help users to manipulate the toy and become more active while playing, moveability of the toys affords opportunity of enacting the story of the play and provide flexible play opportunity. Therefore for toys that are liked both genders, it may be significant to nestle movable parts.

9.4 Evaluation of the Methodology

Throughout semi-structured interviews with the participants, laddering technique was used to learn about reasons of their thoughts and categorizations about toys. After each preference or saying, asking the question of 'Why?' helped children to think about their preferences and sayings one more time therefore it was useful to check their decisions. However sometimes children failed to explain their reasons. Therefore to facilitate children to explain their reasons, some other questions could be asked.

In the pilot study all the toy sets and accessories were put on floor and this caused the participant not to focus on each of them one by one. However in the main study, the accessories of toy sets were brought out sequentially therefore this kept the attention of the children focused throughout the sessions. This helped the researcher to learn participants' opinions about each toy separately without making children get bored, or over-whelming them during sessions.

Young children have limited attention span therefore each session must be between those limits. However this study includes many toys and participants' detailed thoughts about every toy is important. More than one session with each participant could be planned.

9.5 Limitations of the Study

This study was carried out with ten participants (five girls and five boys), all from the same school, and from similar backgrounds and socio-economic status. This makes the sample size small and homogenous, keeping it limited in reflecting more substantial results for 5-6 year-old children in larger populations.

As the study was carried out in a public preschool, the schedule of the sessions was arranged by the school administration and was limited to last for only one day. Furthermore on the day of the sessions, there was another activity in the school (inflatable planetarium activity), which was somewhat noisy and affected the sessions slightly. The sessions were carried out in a meeting room where there was a photocopy machine. The teachers sometimes came into the room to use that machine and this could in some cases affect the continuity of sessions.

9.6 Recommendations for Further Studies

Some recommendations for further studies can be made searching for answers about children's thoughts on gendered toys. First of all, because of the fact that the sample size was limited in this study, the results can only be attributed to a certain group. Therefore to get further reflective results of larger populations, the sample size can

be enlarged and constituted from diverse participants including age and socioeconomic status.

Furthermore in this study, only toy sets are used to understand children's gender-related categorizations. Toy sets were chosen for this study because they nestle many accessories and this provides a chance to talk about both the main toy set and each of its pieces separately. However for further studies other types of toys, like dolls, cars, construction toys, dramatic play toys and even arts and crafts toys, can be used to discover how gender-related features of other types of toys affect both girls' and boys' categorizations.

In this study there was a limited amount of ambiguous toys, which bare design features that are related to both girls and boys. However for further studies, it may be useful to understand children's thoughts about gender-related design features by using more ambiguous toys because of the fact that they are able to help children to examine and compare their thoughts about how gender-related design features make gendered toys and therefore such toys may be helpful in providing more detailed information. Similarly, this study also included a limited amount of neutral toys. Therefore for future, a detailed study including only ambiguous and neutral toys can be done to deeply discover the gender-specific categorizations of both girls and boys.

REFERENCES

Alexander, G. M. and Hines, M. (2002) Sex Differences in Response to Children's Toys in Nonhuman Primates (Cercopithecus aethiops sabaeus). *Evolution and Human Behavior, 23,* 467-479. Retrieved on May 2016 from https://www.sciencedirect.com/science/article/pii/S1090513802001071

Alexander , G. M, Wilcox, T. and Woods, R. (2009) Sex Differences in Infants' Visual Interest in Toys. *Archives of Sexual Behavior*, 38, 427-433. Retrieved on May 2016, DOI: 10.1007/s10508-008-9430-1.

Alderson, P. (2005) Designing Ethical Research with Children. In A. Farrell (Ed.) *Ethical Research with Children.* (pp. 27-36) Maidenhead, Berkshire: Open University Press.

Auster, C. J. & Mansbach, C. S. (2012) The gender marketing of toys: an analysis of color and type of toy on the Disney store website. *Sex Roles, 67,* 375-388. Retrieved on June 2017, from https://link.springer.com/content/pdf/10.1007/s11199-012-0177-8.pdf

Bee, H. & Boyd, D. (2007) *The Developing Child* (11th ed.) Boston; London: Pearson/Allyn and Bacon.

Berk, L E. (2006) *Child Development.* (7th ed.) Boston: Pearson/Allyn and Bacon.

Bjorklund, D. F and Gardiner, A. K. (2011) Object Play and Tool Use: Developmental and Evolutionary Perspective. In A. D. Pellegrini (Ed.) *The Oxford Handbook of The Development of Play.* (pp. 153-171) New York: Oxford University Press.

Blakemore, J. E. O. and Centers, R. E. (2005) Characteristics of Boys' and Girls' Toys. *Sex Roles, 53,* 619–633. Retrieved on May 2016, DOI: 10.1007/s11199-005-7729-0.

Brotherson, S. (2009) What young children learn through play. *North Dakota State University (NDSU) Extension Service.* Retrieved on May 2016 from http://www.ag.ndsu.edu/pubs/yf/famsci/fs1430.pdf

Burman, A. (2012). Constructive Play in Early Learning Environments. Retrieved on July 2016 from http://cmascanada.ca/wp-content/uploads/2012/01/Burman-Alka-Constructive-Play-in-Early-Learning-Environments-v1.pdf

Büyükgüral, P. (2003) *The Effect of Traditional Playground Equipment Design in Children's Developmental Needs.* (Master dissertation, Middle East Technical University, Ankara, Turkey). Retrieved on May 2016 from https://etd.lib.metu.edu.tr/upload/1213727/index.pdf

Boyse, K. (2013) Developmental Milestones. Retrieved on May 2016 from http://www.med.umich.edu/yourchild/topics/devmile.htm

Cherney, I. D. and Dempsey, J. (2010) Young children's classification, stereotyping and play behavior for gender neutral and ambiguous toys. *Educational Psychology, 30 (6),* 651-669. Retrieved on June 2016, DOI: 10.1080/01443410.2010.498416.

Cherney, I. D., Kelly-Vance, L., Glover, K. G., Ruane, A. and Ryalls, B. O. (2003) The Effects of Stereotyped Toys and Gender on Play Assessment in Children Aged 18-47 Months. *Educational Psychology. 23 (1),* 95–106. Retrieved on August 2015, DOI: 10.1080/01443410220000229660.

Cohen, D. (2006) *The Development of Play.* (3rd ed.) London; New York: Routledge.

Cohen, D. H., Stern, V., Balaban, N. and Gropper, N. (2008) *Observing and Recording the Behavior of Young Children.* (5th ed.) New York: Teachers College Press.

Dramatic play (n.d) Retrieved on August 2015 from http://laffranchinid.faculty.mjc.edu/Ch11.pdf

Eisenberg, M., Buecheley, L., and Elumeze, N. (2004) Computation and construction kits: Toward the next generation of tangible building media for children. In *Proc. of Cognition and Exploratory Learning in the Digital Age,* 423-426.

Else, P. (2009) *The Value of Play.* New York: Continuum International Pub. Group.

Farrel, A. (2005) Ethic and Research with Children. In A. Farrell (Ed.) *Ethical Research with Children.* (pp. 1-14) Maidenhead, Berkshire: Open University Press.

Feldman, R. S. (2012) Discovering the Life Span (2nd ed.) Upper Saddle River, N.J: Pearson Prentice Hall.

Fleer, M. (2013) *Play in the Early Years.* Port Melbourne: Cambridge University Press.
Frey, J. R. & Kaiser, A. P. (2011). The Use of Play Expansions to Increase the Diversity and Complexity of Object Play in Young Children with Disabilities. *Topic in Early Childhood Special Education*, 31(2), 99-111. Retrieved on June 2017, DOI: 10.1177/0271121410378758.

Frost, J. L., Wortham, S. C. & Reifel, S. (2008) *Play and Child Development.* (3rd ed.) Upper Saddle River, N.J.: Pearson/Merrill Prentice Hall.

Gallagher, M. (2009) Data Collection and Analysis. In E. K. M. Tisdall, J. M. Davis, and M. Gallagher (Eds.) *Researching With Children & Young People: Research Design, Methods and Analysis.* (pp. 65-153) London: Sage Publications.

Gallagher, M. (2009) Ethics. In E. K. M. Tisdall, J. M. Davis, and M. Gallagher (Eds.) *Researching With Children & Young People: Research Design, Methods and Analysis.* (pp. 11-64) London: Sage Publications.

Games with Rules (n.d.). In Playground Professionals. Retrieved on May 2016 http://www.playgroundprofessionals.com/encyclopedia/g/games-rules

Goldstein, J. (2003) Contributions of play and toys to child development. Key Studies. Toy Industries of Europe, Brussels. Retrieved on May 2016 from http://www.tietoy.org/wp-content/uploads/2016/11/contributions_of_play_and_toys_to_child_development-2.pdf

Goldstein, J. (2011) Technology and Play. In A. D. Pellegrini (Ed.) *The Oxford Handbook of The Development of Play.* (pp. 322-337) New York: Oxford University Press.

Green, V. A., Bigler, R. and Catherwood, D. (2004) The Variability and Flexibility of Gender-Typed Toy Play: A Close Look at Children's Behavioral Responses to Counterstereotypic Models. *Sex Roles, 51 (7/8),* 371-386. Retrieved on April 2017 from https://link.springer.com/article/10.1023/B:SERS.0000049227.05170.aa

Grinberg, E. (2015) Let toys be toys: The case for gender-neutral marketing. Retrieved April 2017 from http://edition.cnn.com/2015/09/24/living/gender-neutral-toys-marketing-feat/index.html

Hewitt, K. (2001) Blocks as a Tool for Learning: Historical and Contemporary Perspectives. *Young Children,* 6-13. Retrieved on May 2016 from http://www.naeyc.org/files/yc/file/Hewitt0101.pdf

Hobara, M. (2003) Prevalence of Transitional Objects in Young Children in Tokyo and New York. *Infant Mental Health Journal, 24 (2),* 174-191. Retrieved on June 2017, DOI: 10.1002/imhj.10046

Hobart, C. and Frankel, J. (1999) A Practical Guide to Child Observation and Assessment (2nd ed.) United Kingdom: Nelson Thornes.

Hoorn, J. V., Nourot, P. M., Scales, B. and Alward, K. R. (2007). Play at the Center of the Curriculum (4th ed.) Upper Saddle River, N.J.: Pearson/Merrill Prentice Hall.

Howard, J. and McInnes, K. (2013) *The Essence of Play: A practice companion for professionals working with children and young people.* Abingdon, Oxon: Routledge.

Hughes, F. P. (2009) *Children, Play, and Development.* (4th ed.) Thousand Oaks, California: Sage Publications.

Jadva, V., Hines, M. and Golombok, S. (2010) Infants' Preferences for Toys, Colors and Shapes: Sex Differences and Similarities. *Archives of Sexual Behavior, 39,* 1261-1273. Retrieved on June 2017, DOI: 10.1007/s10508-010-9618-z

Jarvis, P. (2008) Building 'Social Hardiness' for Life: Rough and Tumble Play in the Early Years of Primary School. In A. Brock, S. Dodds, P. Jarvis, and Y. Olusoga (Ed.) *Perspectives on Play: Learning for life.* (pp. 175-189) Harlow, England: N.Y., NY : Pearson Education.

Kelly-Vance, L. and Ryalls B. O. (2008) Best practices in play assessment and intervention. In A. Thomas & J. Grimes (Eds.), *Best practices in school psychology V* (pp. 549-560) Bethesda, MD: National Association of School Psychologists.

Langston, A., Abbott, L., Lewis, V., and Kellet, M. (2004) Early Childhood. In S. Fraser, V. Lewis, S. Ding, M. Kellett, and C. Robinson (Eds), *Doing Research with Children and Young People.* (pp. 147-160) London: Sage Open University.

Learning and Developing Through Play, (n.d.). Retrieved on August 2015 http://www.ncca.biz/Aistear/pdfs/Guidelines_ENG/Play_ENG.pdf

Levine, L. E. & Munsch, J. (2011) *Child Development: An Active Learning Approach.* Los Angeles, CA : SAGE.

Lindon J. (2002) What is Play? Retrieved on June 2015 from http://www.ncb.org.uk/media/124824/no.3_what_is_play.pdf

Lindsey, E. W. & Mize, J. (2001). Contextual Differences in Parent-Child Play: Implications for Children's Gender Role Development - Statistical Data Included. *Sex Roles, 44,* 155-176. Retrieved on June 2015, DOI: 10.1023/A:1010950919451.

Macron, R. A., & Freeman, G. (1996) Linking gender-related toy preferences to social structure: Changes in children's letters to Santa since 1978. *Journal of Psychological Practice, 2,* 1-10. Retrieved on June 2017 from https://files.eric.ed.gov/fulltext/ED383480.pdf

Martin, C. L., Fabes, R. A. and Hanish, L. D. (2011) Gender and Temperament in Young Children's Social Interactions. In A. D. Pellegrini (Ed.) *The Oxford Handbook of The Development of Play.* (pp. 214-230) New York: Oxford University Press.

McCleaf Nespeca, S. (2012) The Importance of Play, Particularly Constructive Play, in Public Library Programming. The Association for Library Service to Children. Retrieved on June 2015 from http://www.ala.org/alsc/sites/ala.org.alsc/files/content/FINAL%20Board%20Approv ed%20White%20Paper%20on%20Play.pdf

McMahon, F. (2014) Toy. Retrieved on June 2015 from http://global.britannica.com/technology/toy

Mustard, J. F. (2006) Experience-based brain development: Scientific underpinnings of the importance of the early child development in a global world. *Paediatrics & Child Health, 11(9),* 571-572. Retrieved on June 2015 from https://www.ncbi.nlm.nih.gov/pmc/articles/PMC2528649/

Nobelius, A. M. (2004) What is the Difference between Sex and Gender? Retrieved on June 2015 from http://www.med.monash.edu.au/gendermed/sexandgender.html

Olusoga, Y. (2008) 'We Don't Play Like That Here': Social, Cultural and Gender Perspectives on Play. In A. Brock, S. Dodds, P. Jarvis, and Y. Olusoga (Ed.) *Perspectives on Play: Learning for life.* (pp. 40-59) Harlow, England: N.Y., NY: Pearson Education.

Pellegrini, A. D. (2009) *The Role of Play in Human Development.* New York: Oxford University Press.

Puckett, M. B., Black, J. K., Wittmer, D. S. and Petersen, S. H. (2008) *The Young Child: Development From Prebirth Through Age Eight.* (5th ed.) Upper Saddle River, N.J.: Pearson/Prentice Hall.

Rommes, E., Bos, M. and Geerdink, J. O. (2011) Design and use of gender specific and gender stereotypical toys. *International Journal of Gender, Science and Technology,* 3(1), 186-204. Retrieved June 2017 from http://genderandset.open.ac.uk/index.php/genderandset/article/view/131

Roopnarine, J. L. (2011) Cultural Variations in Beliefs about Play, Parent-Child Play, and Children's Play: Meaning for Childhood Development. In A. D. Pellegrini (Ed.) *The Oxford Handbook of The Development of Play.* (pp. 19-37) New York: Oxford University Press.

Sargeant, J. and Harcourt, D. (2012) *Doing Ethical Research with Children.* Maidenhead, Berkshire: Open University Press.

Scarlett, W. G., Naudeau, S., Salonius-Pasternak, D. and Ponte, I. (2005) *Children's Play.* Thousand Oaks: Sage Publications.

Sharman, C., Cross, W. and Vennis, D. (2004) *A Practical Guide: Observing Children.* (3rd ed.) New York: London: Continuum.

Sheridan, M. D. (2011) Play in Early Childhood: From Birth to Six Years. (3rd ed., Howard, J. and Alderson, D.) Abingdon, Oxon: Routledge

Smith, P. K., Cowie, H. and Blades, M. (2003) *Understanding Children's Development* (4th ed.) United Kingdom: Blackwell Publishing.

Stanton, N. A., Salmon, P. M., Walker, G. H., Baber, C. and Jenkins, D. P. (2005) *Human Factors Methods: A practical guide for engineering and design.* Aldershot, England; Burlington, VT : Ashgate Puıb. Co.

Therrel, J. A. (2002) Age Determination Guidelines: Relating Children's Ages to Toy Characteristics to Play Behavior. Retrieved on June 2015 from https://www.cpsc.gov//PageFiles/113962/adg.pdf

Tisdall, E. K. M., Davis, J. M. and Gallagher M. (2009) Introduction. In E. K. M. Tisdall, J. M. Davis, and M. Gallagher (Eds.) *Researching With Children & Young People: Research Design, Methods and Analysis.* (pp. 1-10) London: Sage Publications.

Weisgram, E. S., Fulcher, M and Dinella, L. M. (2014) Pink gives girls permission: Exploring the roles of explicit gender labels and gender-typed colors on preschool children's toy preferences. *Journal of Applied Developmental Psychology*, 35, 401-409. Retrieved on June 2017 from https://www.sciencedirect.com/science/article/pii/S0193397314000689

What Makes a Good Toy?, (n.d). In Parent's Choice. Retrieved on June 2015 from http://www.parents-choice.org/article.cfm?CFID=29036293-eba1-45ee-a8ec-99a8f7b3ee6c&CFTOKEN=0&art_id=303&the_page=consider_this

Wong, W. I. and Hines, M (2015) Effects of Gender Color-Coding on Toddler's Gender –Typical Toy Play. *Archives of Sexual Behavior*, 44 (5), 1233-1242. Retrieved on June 2017, DOI: 10.1007/s10508-014-0400-5.

Wood, E., Desmarais, S. and Gugula, S. (2002) The Impact of Parenting Experience on Gender Stereotyped Toy Play of Children. *Sex Roles*, 47 (1/2), 39-47. Retrieved on June 2016 from https://link.springer.com/content/pdf/10.1023%2FA%3A1020679619728.pdf

Yeh, K. and Hutchison, L. (2012) Why Kids Should Play With Baby Dolls (Yes, Even Boys!). Retrieved on June 2015 from http://mamaot.com/why-kids-should-play-with-baby-dolls-yes-even-boys/

Yeung, S. P. & Wong, W. I. (2018) Gender Labels on Gender-Neutral Colors: Do They Affect Children's Color Preferences and Play Performance? *Sex Roles,* 1-13. Retrieved on January 2018 from https://doi.org/10.1007/s11199-017-0875-3

Zaman, B. and Abeele, V. V. (2010) Laddering with Young Children in User Experience Evaluations: Theoretical Groundings and Practical Case. Retrieved on June 2015 from http://dl.acm.org/citation.cfm?id=1810561

APPENDIX A

TOY CATEGORIES AND THEIR DESIGN FEATURES

Table 6.2 Toy categories and their design features

Types of Toys / Design Features	Dolls				Vehicles		Toys Sets			Dramatic Play Toys		Constructive Toys		Arts and Crafts Toys	
		Character Dolls						Baby Doll and Barbie-type Sets							
	Baby Dolls	Action Figures	Barbie-type Dolls	Animal Dolls	Toy Vehicles	Model Vehicles	Vehicle Sets	Baby Doll and Barbie-type Sets	Other Toy Sets	Dramatic Play Areas	Dramatic Play Props	Attachable Toys	Non-attachable Toys	Materials	Tools
Theme	feeding, lulling, toilet trainning, dressing up, medical examination, hairdressing, bathing.	adventure, combat, super heroes.	princess, fashion model, mermaid, ballerina, rider, teacher, veterinary, pop star, shopping.	princess, pet shop, fashion, fairies, home life, veterinary.	luxury automobile, antique automobile, race automobiles, land automobiles.	train, lorry, track, tractor, firefighter car, race car, ship, plane, helicopter, construction equipment, motorcyles, ambulance.	tiring wheels, repairing cars, racing, controlling traffic, constructing, rescuing.	manor house, princess house, villa, kitchen, gardrobe, barbie car, horse.	knights, pirates, soldiers, policeman, farm, safari park, manor house, princess house.	doctor, repairman, restaurant, market, shop, kitchen, laundry room, cafe.	soldier, policeman, knight, doctor, repair, restaurant, market, shop, clean-up, dressing, kitchen, laundry, cafe.	war, rescue, defense, race, mountain hut, farm, zoo, beverage shop, café, house, manor house.	no theme.	no theme.	construction, super heroes, digging rigs, trash tossing, dentist, movie snacks, burger builder, icecream shop, barber, hair design, princess house, dressing.
Size	different in size (10-100 cm), small ones are easy to carry and handle, large ones difficult to carry and handle.	different in size (10-30 cm), easy to carry, handle.	almost same in size (10-30 cm), easy to carry, handle.	different in size (5-30 cm) easy to carry, handle.	different in size (5-60 cm) easy to carry.	different in size (5-60 cm) easy to carry.	different in size. Small, easy to carry ones. Large and untransportable ones.	different in size. Small, easy to carry ones. Large and untransportable ones.	different in size. Small, easy to carry ones. large and untransportable ones.	large and untransportable.	easy to carry and handle	different in size. Easy to handle and carry.	different in size. Easy to handle and carry.	different in size.	different in size.
Color	pink, blue, yellow, white, purple.	red, blue, white, green, brown, orange, black, silver, purple.	pink, purple, blue, yellow, white, orange.	pink, purple, blue, yellow, green, lilac.	gray, yellow, blue, red, beige, orange, white, black, green, silver.	yellow, blue, red, brown, purple, beige, orange, white, black, green, gray.	gray, yellow, blue, red, brown, purple, beige, orange, white, black, green.	pink, white, blue, purple, lilac.	beige, gray, brown, green, white, orange, yellow, blue, black, red, pink, lilac,	brown, green, orange, black, red, blue, pink, purple, lilac, white, gray.	brown, green, orange, black, red, blue, pink, purple, lilac, white, gray.	blue, green, black, white, red, brown, yellow, beige, gray, pink, purple, lilac.	blue, green, black, white, red, brown, yellow, beige, gray, pink, purple, lilac.	all colors.	brown, black, blue, green, gray, red, yellow, orange, pink, purple, lilac.
Light	on cheeks (having fever), on feeding bib (presenting dirt).	on eyes, on body, on weapons.	on different parts of the barbie doll (on jewellery, on body).	On different parts of the animal doll.	on headlights, signal lights.	on headlights, signal lights.	on headlights, signal lights.	house lights, machine and tool lights.	on different parts of figures and structures.	machine lights, signal lights.		no use of light.	no use of light.	no use of light.	no use of light.
Sound	singing song, crying, talking, laughing, murmuring.	talking, shouting, sound effects (weapons, vehicles).		talking, animal sounds.	sound effects (engine, speed, ambulance, police),	sound effects (engine, speed, ambulance, police), music, talking.	sound effects (engine, speed, ambulance, police), music, talking.	sound effects (elevator, trap), music.	music, sound effects (nature, animals).	sound effect (drill, vacuum cleaner cash register),	sound effect (drill, vacuum cleaner cash register),	no use of sound.	no use of sound.	no use of sound.	no use of sound.

Table 6.2 (Continued)

Types of Toys / Design Features	Dolls				Vehicles		Toys Sets			Dramatic Play Toys		Constructive Toys		Arts and Crafts Toys	
	Baby Dolls	Character Dolls		Animal Dolls	Toy Vehicles	Model Vehicles	Vehicle Sets	Baby Doll and Barbie-type Sets	Other Toy Sets	Dramatic Play Areas	Dramatic Play Props	Attachable Toys	Non-attachable Toys	Materials	Tools
		Action Figures	Barbie-type Dolls												
Movement	dancing, walking, bouncing, turning head, moving arms and legs, blinking eyes, rotating segments.	moving arms, legs, head, moving and transformable parts, moving and transformable weapons.	twinkling tail, moving and turning arms, moving legs, pliable knees and elbows, turning head.	walking, dancing, moving arms and legs, blinking eyes.	hinged doors, turning wheels hinged rear deck and hood.	hinged doors, turning wheels, hinged rear deck and hood, turning propeller, changing shape, moving lifting tools .	turning wheels, hinged doors.	hinged doors and windows, turning platforms, moving parts, moving elevator.	hinged doors, hinged walls, moving parts of the figures,	moving caps, moving machines, moving tools.	moving caps, moving machines, moving tools.	hinged parts for doors, windows, etc., moving arms, legs and head of figures.	no use of movement.	no movement.	moving handles, hinged moulds.
Graphic Application	figures on body, clothes and accessorizes (shapes, animals, flowers, letters and numbers).	figures on body, on weapons (symbols, shapes, letters and numbers).	figures on body, clothes and accesories (shapes, flower, lettters)	figures on body, clothes and accessories (flowers, hearts, shapes)	figures on car trunk (check, stripes, numbers), flags, brand logos.	figures on car trunk (check, stripes, numbers), flags, logos, symbols.	figures on car trunk and other accesorizes (check, stripes, numbers), flags, brand logos.	figures and drawings on walls, on machine and tools.	figures on parts and accesories (patterns, symbols, flags, flowers, shapes, letters, numbers).	figures on furnitures (symbols, shapes, flags, patterns, numbers).	figures on props (symbols, shapes, flags, patterns, numbers).	figures on parts (patterns, flags, symbols, letters, shapes).	figures on parts (patterns, flags, symbols, letters, shapes).	no graphic applications.	figures on parts (patterns, symbols, shapes).
Figure	female or unspecified. baby or child.	mostly male, occasionally female, adult.	female or male. baby, child, adult.	female or unspecified.	male or no figures. adult.	male or no figures. adult.	male or no figures. adult.	female, male, or no figures. Baby, child, adult.	female or male figures. child or adult.	no figures.	no figures.	female, male or figures. Children or adult.	no figures.	no figures.	female or no figures.
Figure Accessories	clothes, feeding bottle, toothpaste, diapers, medicine, shampoo, toys, comb.	weapons, binoculars, shield, masks.	clothes, shoes, bags, jewellery, make up accessories.	clothes, make up accessories.				clothes, shoes, bags, jewellery, make up accessories.	weapons, binoculars, arch, bags, jewellery, make up accessories.	no accesories.	no accesories	weapons, binoculars, bags, jewellery, make up accessories.	no accesories.	no accesories.	
Other Accessories Related to the Theme	furniture, stroller, feeding chair, bed, toilet seat.	vehicles,	animals, vehicles.	furniture, foods, vehicles.			roads, bridges, platforms, machines,	furniture, vehicles, machines, animals.	furniture, vehicles, places, animals, decorative accessories.			furniture, vehicles, places, animals, decorative accessories.	no accesories.	no accesories.	

APPENDIX B

ETHICAL PERMISSION

Veli Onay Formu

Sevgili Anne/Baba,

Bu çalışma Orta Doğu Teknik Üniversitesi Endüstri Ürünleri Tasarımı yüksek lisans öğrencilerinden Kübra Kara tarafından yürütülmektedir.

Bu çalışmanın amacı nedir?

Çalışmanın amacı oyuncakların tasarım özelliklerinin okul öncesi yaştaki çocukların cinsiyet odaklı sınıflandırmalarına ve yargılarına etkisini araştırmaktır.

Çocuğunuzun katılımcı olarak ne yapmasını istiyoruz?

Bu amaç doğrultusunda, çocuğunuzun devam etmekte olduğu eğitim kurumunda bulunan boş bir sınıf ya da odada günlük eğitim programının akışını engellemeyecek şekilde gözlem seansı yapılacaktır. Yaklaşık 20 dakika sürecek olan bu seans sırasında araştırmacı, çocuğunuz ve kurum içerisinden çocuğunuzun tanıdığı bir öğretmeni bir arada bulunacaktır. Seans süresince çocuğunuzdan araştırmada yer alan 4 farklı oyun setine ait olan aksesuarların oyun setleriyle eşleştirmesi ve bu oyun setleriyle belirli bir süre oynaması istenecektir. Bu sürede çocuğunuzun cinsiyet odaklı sınıflandırmaları ve yargıları hakkında ayrıntılı bilgi edinmek amacıyla bazı kontrol listeleri doldurulacak ve çocuğunuza önceden planlanmamış çeşitli sorular yöneltilebilecektir.

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Seans süresi boyunca çocuğunuzun kimliği anlaşılmayacağı şekilde görüntü kaydı alınacaktır. Bu görüntü kaydı araştırmacı tarafından seans boyunca toplanan verilerin analizi sırasında kullanılacaktır.

Sizden çocuğunuzun katılımcı olmasıyla ilgili izin istediğimiz gibi, çalışmaya başlamadan çocuğunuzdan da sözlü olarak katılımıyla ilgili rızası mutlaka alınacak.

Çocuğunuzdan alınan bilgiler ne amaçla ve nasıl kullanılacak?

Çocuğunuzdan alacağımız cevaplar tamamen gizli tutulacak ve sadece araştırmacılar tarafından değerlendirilecektir. Elde edilecek bilgiler sadece bilimsel amaçla araştırmacının yüksek lisans tezinde kullanılacak, çocuğunuzun ya da sizin ismi ve kimlik bilgileriniz, hiçbir şekilde kimseyle paylaşılmayacaktır.

Çocuğunuz ya da siz çalışmayı yarıda kesmek isterseniz ne yapmalısınız?

Bu çalışmaya katılmak tamamen gönüllülük esasına dayalıdır. Herhangi bir yaptırıma veya cezaya maruz kalmadan çocuğunuzun çalışmaya katılmasını reddedebilirsiniz. Katılım sırasında sorulan sorulardan ya da başka bir nedenden ötürü çocuğunuz kendini rahatsız hissettiğini belirtirse, ya da kendi belirtmese de araştırmacı çocuğun rahatsız olduğunu öngörürse, çalışmaya sorular tamamlanmadan ve derhal son verilecektir.

Bu çalışmayla ilgili daha fazla bilgi almak isterseniz: Çalışmaya katılımınızın sonrasında, bu çalışmayla ilgili sorularınız cevaplandırılacaktır. Çalışma hakkında daha fazla bilgi almak için Endüstri Ürünleri Tasarımı Bölümü yüksek lisans öğrencisi Kübra Kara (e-posta: e148877@metu.edu.tr) ile iletişim kurabilirsiniz. Bu çalışmaya katılımınız için şimdiden teşekkür ederiz.

Lütfen bu araştırmaya katılmak konusundaki tercihinizi aşağıdaki seçeneklerden size en uygun gelenin altına imzanızı atarak belirtiniz ve bu formu çocuğunuzla okula geri gönderiniz.

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A) Bu araştırmaya tamamen gönüllü olarak katılıyorum ve çocuğum ....'nın da katılımcı olmasına izin veriyorum. Çalışmayı istediğim zaman yarıda kesip bırakabileceğimi biliyorum ve verdiğim bilgilerin bilimsel amaçlı olarak kullanılmasını kabul ediyorum.

Baba Adı-Soyadı............................   Anne Adı Soyadı..................................

İmza ....   İmza ....

B) Bu çalışmaya katılmayı kabul etmiyorum ve çocuğumun ....'nın da katılımcı olmasına izin vermiyorum.

Baba Adı-Soyadı............................   Anne Adı Soyadı..................................

İmza ....   İmza ....

ETHICAL PERMISSION (ENGLISH TRANSLATION)

Parent Consent Form

Dear Parent,

This study is carried out by Kübra Kara who is a graduate student at the Department of Industrial Design at Middle East Technical University.

What is the aim of this study?

The aim of this study is to understand the role of design features of toys in gender-related categorizations of preschool children.

What is expected from your child as being a participant?

In accordance with the aim, in an appropriate empty class or room in the preschool that your child is attending, there will be conducted an observation session without preventing the daily education program. Throughout the session, which will take approximately 20 minutes, the researcher, your child and a teacher from the institution familiar to your child will be together in the room. While conducting the session, it is expected from your child to match the accessories with the four toy sets used in the study and play with these toy sets for a while. Through this period, to understand your child's gender-related categorizations, some checklists will be completed and some unplanned questions will be directed to your child.

The session will be recorded by a video camera without making your child's identity visible. This video record will be used only by the researcher for the analysis of the data gathered through the session.

Similar to the consent that we seek from you about your child's participation, at the begining of the session, your child's permission will be also asked for verbally.

How will the data obtained from your child be used?

The answers we get from your child will be competely kept private and analyzed only by the researchers. Derived data will be only used in the master thesis of the researcher for scientific purposes, your and your child's name and identity will not be shared with someone else under any circumstance.

What do you need to do, if you or your child want to interrupt the session?

Participating in this study is competely on a voluntary basis. Without being exposed to any imposition or punishment, you can refuse your child to take part in the study. During the session, if your child implies that she/he is uncomfortable because of the questions asked or any other reason, or if the researcher feels that your child is uncomfortable, the session will instantly be terminated.

If you want to learn more about this study: Your questions about the study will be answered after your child's session is completed. To get more detailed information about the study, you can contact Kübra Kara (e-mail: e148877@metu.edu.tr), the graduate student from the Department of Industrial Design. We express gratitude for your participation right now.

Please imply your opinion about your participation to this study by putting your signature under the most relevant option and send back this form to the institution with your child.

A) I am voluntarily taking part in this study and permit my child .... to be a participant. I know that whenever I want, I am able to terminate the session and I approve the information to be used for scientific purposes.

   Father Name-Surname....................... Mother Name-Surname.......................

   Signature.................................... Signature. …..

B) I do not approve to take part in this study and do not permit my child ....
to be a participant.

   Father Name-Surname....................... Mother Name-Surname.......................

   Signature.................................... Signature. ....

THE TOY AND GENDER RELATION CHECKLIST

Oyuncak - Cinsiyet İlişkisi Kontrol Listesi			
	Kızlara Yönelik	Erkeklere Yönelik	Cinsiyetsiz	Belirsiz
Oyun Seti 1				
Oyun Seti 2				
Oyun Seti 3				
Oyun Seti 4				
Aksesuar 1				
Aksesuar 2				
Aksesuar 3				
Aksesuar 4				
Aksesuar 5				
Aksesuar 6				
Aksesuar 7				
Aksesuar 8				
Aksesuar 9				
Aksesuar 10				
Aksesuar 11				
Aksesuar 12				
Aksesuar 12				
Aksesuar 13				
Aksesuar 14				
Aksesuar 15				
Aksesuar 16				
Aksesuar 17				
Aksesuar 18				
Aksesuar 19				
Aksesuar 20				
Aksesuar 21				
Aksesuar 22				
Aksesuar 23				
Aksesuar 24				

APPENDIX E

THE ACCESSORY AND TOY SET RELATION CHECKLIST

Oyun Seti - Aksesuar İlişkisi			
	Oyun Seti 1	Oyun Seti 2	Oyun Seti 3	Oyun Seti 4
Aksesuar 1				
Aksesuar 2				
Aksesuar 3				
Aksesuar 4				
Aksesuar 5				
Aksesuar 6				
Aksesuar 7				
Aksesuar 8				
Aksesuar 9				
Aksesuar 10				
Aksesuar 11				
Aksesuar 12				
Aksesuar 13				
Aksesuar 14				
Aksesuar 15				
Aksesuar 16				
Aksesuar 17				
Aksesuar 18				
Aksesuar 19				
Aksesuar 20				
Aksesuar 21				
Aksesuar 22				
Aksesuar 23				
Aksesuar 24				

INTEVIEW DETAILS (ENGLISH TRANSLATION)

Session with Participant 1
Researcher: Hi, welcome. I brought four different toy sets for you and today we will play with those and I will also ask some questions to you while playing, is it OK?
Participant 1: Yes.
R: For whom does this toy set (pointing the knight castle) is for? For girls or for boys?
P1: Both.
R: Why do you think that both can play with this toy set?
P1: Because in castles there are kings and queens and both girls and boys can play with those.
R: For whom does this toy set (pointing the farm) is for? For girls or for boys?
P1: Boys.
R: Why do you think that only boys can play with this toy set?
P1: Because in farm, there are elder people and animals.
R: For whom does this toy set (pointing the princess chateau) is for? For girls or for boys?
P1: Girls.
R: Why do you think that only girls can play with this toy set?
P1: Because it is pink and it is a chateau for girls.
R: For whom does this toy set (pointing the airport) is for? For girls or for boys?
P1: Boys.
R: Why do you think that only boys can play with this toy set?
P1: Because planes are toys for boys and there are men in planes so girls do not like.
R: OK. Now I will bring some toys from the bag. For whom does this toy (showing the horses of carriage) is for? For girls or for boys?
P1: Both.
R: You say both can play. Then, which toy set could this toy belong to?
P1: (Pointing the knight castle and puting it there)
R: For whom does this toy (showing the pink plane) is for? For girls or for boys?
P1: Both.
R: Why do you think that both can play with this toy? You said before that planes are for boys.
P1: Because it is a pink plane so that girls can also play with it. (Putting the pink plane somewhere in the airport toy set)
R: For whom does this toy (showing the cow) is for? For girls or for boys?

P1: For boys. (pointing the farm and putting it there)
R: For whom does this toy (showing the knight horse) is for? For girls or for boys? And why?
P1: For boys. (pointing the farm and putting it there). Because it is in farm.
R: For whom does this toy (showing the princess) is for? For girls or for boys?
P1: Girls.
R: Why do you think that only girls can play with this toy?
P1: Because it is a princess and for girls. (putting it to the princess chateau)
R: For whom does this toy (showing the male fire fighter) is for? For girls or for boys?
P1: For boys. (putting it to the airport)
R: For whom does this toy (showing the female farmer) is for? For girls or for boys?
P1: For girls.
R: Why it is for girls?
P1: Because it female.
R: Then, which toy set could this toy belong to?
P1: (pointing the farm and putting it there)
R: For whom does this toy (showing the grey male knight) is for? For girls or for boys?
P1: For boys.
R: Why it is for boys?
P1: Because it is male and a fighter.
R: Then, which toy set could this toy belong to?
P1: (pointing the knight castle and putting it there)
R: For whom does this toy (showing the bed) is for? For girls or for boys?
P1: For girls.(pointing the princess chateau and putting it there)
R: For whom does this toy (showing the tree) is for? For girls or for boys? Why?
P1: Boys. It just stands somewhere. (pointing the farm and putting it there)
R: For whom does this toy (showing the stepladder) is for? For girls or for boys?
P1: Stepladder. Boys play with it. Stepladders are used mostly by elder people. (pointing the farm and putting it there)
R: For whom does this toy (showing the airport traffic sign) is for? For girls or for boys?
P1: it just stands somewhere, uncertain about it.
R: Then, which toy set could this toy belong to?
P1: (pointing the airport and putting it there)
R: For whom does this toy (showing the cannon carriage) is for? For girls or for boys? What is this?
P1: Fires gun. For boys.
R: Why it is for boys?
P1: Because girls do not like wars and this is for boys. (pointing the knight castle and putting it there)
R: For whom does this toy (showing the horse carriage) is for? For girls or for boys? Why?

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P1: For girls. (pointing the princess chateau and putting it there) Because it transports girls.
R: For whom does this toy (showing the fire engine) is for? For girls or for boys?
P1: For boys. (pointing the farm and putting it there)
R: For whom does this toy (showing the tractor with trailer) is for? For girls or for boys?
P1: For boys. But some girls may like. (pointing the farm and putting it there)
R: For whom does this toy (showing the black male knight) is for? For girls or for boys?
P1: For boys because it makes war. (pointing the knight castle and putting it there)
R: For whom does this toy (showing the prince) is for? For girls or for boys? Why?
P1: For girls because it wears like girls. (pointing the princess chateau and putting it there)
R: For whom does this toy (showing the female police) is for? For girls or for boys? Why?
P1: For boys. It is female but police. (pointing the farm and putting it there)
R: For whom does this toy (showing the male farmer) is for? For girls or for boys? Why?
P1: For boys. (pointing the farm and putting it there)
R: For whom does this toy (showing the pink chest) is for? For girls or for boys? Why?
P1: For girls because it is pink and there is a heart on it. (pointing the princess chateau and putting it there)
R: For whom does this toy (showing the cannon ball) is for? For girls or for boys? Why?
P1: For boys. It belongs to cannon carriage. And girls do not like it because it is about wars. (pointing the knight castle and putting it there)
R: For whom does this toy (showing the purple coach) is for? For girls or for boys? Why?
P1: For both. It is for girls because it is purple and for boys because it is a vehicle. (pointing the airport and putting it there)
R: For whom does this toy (showing the sheep) is for? For girls or for boys?
P1: For boys. A goat. (pointing the farm and putting it there)
R: That's all. Now we have four toy sets. Which one do you wan to play with?
P1: Knight castle.
R: Let's play with it for a while.

P1 played with the knight castle for a while. He opened and closed its door. He said that knights talked and made war. He said that the door can be opened with a button. He played with the cannon ball. He said that he liked its door and inside part of it.

Session with Participant 2
Researcher: Hi. Welcome. I brought four different toy sets for you and today we will play with those and I will also ask some questions to you while playing, is it OK?
Participant 2: Yes.
R: For whom does this toy set (pointing the knight castle) is for? For girls or for boys?
P2: Boys. Girls do not like to play and I do not want also.
R: For whom does this toy set (pointing the farm) is for? For girls or for boys?
P2: Girls. Girls like animals.
R: For whom does this toy set (pointing the princess chateau) is for? For girls or for boys?
P2: Girls.
R: Why do you think that only girls can play with this toy set?
P2: Because it is pink. Boys do not like pink.
R: For whom does this toy set (pointing the airport) is for? For girls or for boys?
P2: Boys.
R: Why do you think that only boys can play with this toy set?
P2: Girls do not like to play with an airport.
R: OK. Now I will bring some toys from the bag. For whom does this toy (showing the horses of carriage) is for? For girls or for boys?
P2: Girls.
R: Why?
P2: I like to play with it.
R: Which toy set could this toy belong to?
P2: (Pointing the princess chateau and puting it there)
R: For whom does this toy (showing the pink plane) is for? For girls or for boys?
P2: Both.
R: Why do you think that both can play with this toy?
P2: Because it is a pink plane so that girls can also play with it. (Pointing the airport and puting it there)
R: For whom does this toy (showing the cow) is for? For girls or for boys?
P2: For girls. (pointing the farm and putting it there)
R: For whom does this toy (showing the knight horse) is for? For girls or for boys? And why?
P2: For boys. (pointing the knight castle and putting it there). Because of its color.
R: For whom does this toy (showing the princess) is for? For girls or for boys?
P2: Girls.
R: Why do you think that only girls can play with this toy?
P2: Because it is a princess and boys do not like to play with princesses. (putting it to the princess chateau)
R: For whom does this toy (showing the male fire fighter) is for? For girls or for boys?
P2: For boys. (putting it to the airport)
R: For whom does this toy (showing the female farmer) is for? For girls or for boys?

P2: For both. (pointing the farm and putting it there)
R: For whom does this toy (showing the grey male knight) is for? For girls or for boys?
P2: For boys. (pointing the knight castle and putting it there)
R: Why it is for boys?
P2: Because it is a knight and makes war.
R: For whom does this toy (showing the bed) is for? For girls or for boys?
P2: For girls.(pointing the princess chateau and putting it there)
R: For whom does this toy (showing the tree) is for? For girls or for boys?
P2: Both.
R: Why?
P2: Because everyone can use trees. (pointing the farm and putting it there)
R: For whom does this toy (showing the stepladder) is for? For girls or for boys?
P2: Boys. (pointing the farm and putting it there)
R: For whom does this toy (showing the airport traffic sign) is for? For girls or for boys?
P2: Both can play with it. (pointing the airport and putting it there)
R: For whom does this toy (showing the cannon carriage) is for? For girls or for boys? What is this?
P2: For boys. (pointing the knight castle and putting it there)
R: For whom does this toy (showing the horse carriage) is for? For girls or for boys? Why?
P2: For girls.
R: Why it is for girls?
P2: Because it transports the princess. (pointing the princess chateau and putting it there)
R: For whom does this toy (showing the fire engine) is for? For girls or for boys?
P2: For boys. (pointing the airport and putting it there)
R: For whom does this toy (showing the tractor with trailer) is for? For girls or for boys?
P2: For boys. (pointing the farm and putting it there)
R: For whom does this toy (showing the black male knight) is for? For girls or for boys?
P2: For boys. (pointing the knight castle and putting it there)
R: For whom does this toy (showing the prince) is for? For girls or for boys? Why?
P2: For girls because I have also the same one. (pointing the airport and putting it there)
R: For whom does this toy (showing the female police) is for? For girls or for boys? Why?
P2: For boys. (pointing the knight castle and putting it there)
R: For whom does this toy (showing the male farmer) is for? For girls or for boys?
P2: For girls. (pointing the farm and putting it there)
R: For whom does this toy (showing the pink chest) is for? For girls or for boys? Why?

P2: A chest for girls because it is pink and there is a heart on it. (pointing the princess chateau and putting it there)

R: For whom does this toy (showing the cannon ball) is for? For girls or for boys? Why?

P2: For boys. Girls do not like to play with it. (pointing the knight castle and putting it there)

R: For whom does this toy (showing the purple coach) is for? For girls or for boys?

P2: For both. (pointing the airport and putting it there)

R: For whom does this toy (showing the sheep) is for? For girls or for boys?

P2: For both. (pointing the farm and putting it there)

R: That's all. Now we have four toy sets. Which one do you like most?

P2: (pointing the princess chateau)

R: Let's play with it for a while.

P2 did not want to play for a while and wanted to quit from the session.

Session with Participant 3

Researcher: Hi. Welcome. I brought four different toy sets for you and today we will play with those and I will also ask some questions to you while playing, is it OK?

Participant 3: OK.

R: For whom does this toy set (pointing the knight castle) is for? For girls or for boys?

P3: For both.

R: For whom does this toy set (pointing the farm) is for? For girls or for boys?

P3: Both.

R: For whom does this toy set (pointing the princess chateau) is for? For girls or for boys?

P3: Both play.

R: For whom does this toy set (pointing the airport) is for? For girls or for boys?

P3: Both.

R: OK. Now I will bring some toys from the bag. For whom does this toy (showing the horses of carriage) is for? For girls or for boys?

P3: For both.

R: Which toy set could this toy belong to?

P3: (Pointing the princess chateau and puting it there)

R: For whom does this toy (showing the pink plane) is for? For girls or for boys?

P3: Both.

R: Why do you think that both can play with this toy?

P3: Planes are for boys but girls can play with pink ones. (Pointing the airport and puting it there)

R: For whom does this toy (showing the cow) is for? For girls or for boys?

P3: For both. (pointing the farm and putting it there)

R: For whom does this toy (showing the knight horse) is for? For girls or for boys?

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P3: For both. (pointing the knight castle and putting it there). To go somewhere fast.

R: For whom does this toy (showing the princess) is for? For girls or for boys?

P3: Girls.

R: Why do you think that only girls can play with this toy?

P3: Because some boys do not like to play. (pointing the princess chateau and putting it there)

R: For whom does this toy (showing the male fire fighter) is for? For girls or for boys? Why?

P3: For boys. Because boys like to play with it. (putting it to the airport)

R: For whom does this toy set (showing the female farmer) is for? For girls or for boys?

P3: A person. Farmer. Female farmer. For both. I like to play. (pointing the farm and putting it there)

R: For whom does this toy (showing the grey male knight) is for? For girls or for boys? Why?

P3: Soldier. For both. I like to play. (pointing the princess chateau and putting it there)

R: For whom does this toy (showing the bed) is for? For girls or for boys?

P3: Bed. Princesses sleep in. For both.(pointing the princess chateau and putting it there)

R: For whom does this toy (showing the tree) is for? For girls or for boys?

P3: Tree. Everyone can play. (pointing the farm and putting it there)

R: For whom does this toy (showing the stepladder) is for? For girls or for boys?

P3: Stepladder for climbing high places. For both. (pointing the farm and putting it there)

R: For whom does this toy (showing the airport traffic sign) is for? For girls or for boys? Why?

P3: Sign. For boys. Because boys like toys like this. My friend Zafer has a toy like this. (pointing the airport and putting it there)

R: For whom does this toy (showing the cannon carriage) is for? For girls or for boys?

P3: To throw bomb. For boys. (pointing the knight castle and putting it there)

R: For whom does this toy (showing the horse carriage) is for? For girls or for boys? Why?

P3: Princess car. For girls. Because girls very like princes things like this one. (pointing the princess chateau and putting it there)

R: For whom does this toy (showing the fire engine) is for? For girls or for boys? Why?

P3: For boys. Boys like to play. Some girls do not like. I do not like (pointing the airport and putting it there)

R: For whom does this toy (showing the tractor with trailer) is for? For girls or for boys?

P3: For both. (pointing the airport and putting it there)

R: For whom does this toy (showing the black male knight) is for? For girls or for boys?

P3: Guardsman. For both. (pointing the princess chateau and putting it there) To guard the princess.
R: For whom does this toy (showing the prince) is for? For girls or for boys?
P3: For both. (pointing the airport and putting it there)
R: For whom does this toy (showing the female police) is for? For girls or for boys?
P3: Police. For both. (pointing the airport and putting it there)
R: For whom does this toy (showing the male farmer) is for? For girls or for boys?
P3: Farmer. For both. (pointing the farm and putting it there)
R: For whom does this toy (showing the pink chest) is for? For girls or for boys? Why?
P3: Princess chest. For both. But some boys do not like, some girls like and some girls do not like. Some boys do not like because of its color. (pointing the princess chateau and putting it there)
R: For whom does this toy (showing the cannon ball) is for? For girls or for boys? Why?
P3: Cannon ball. For stopping wars. When you throw it to ships, they break down. For both. (pointing the knight castle and putting it there)
R: For whom does this toy (showing the purple coach) is for? For girls or for boys?
P3: For both. (pointing the airport and putting it there)
R: For whom does this toy (showing the sheep) is for? For girls or for boys?
P3: Cow. For both. (pointing the farm and putting it there)
R: That's all. Now we have four toy sets. Which one do you like most? Which one do want to play for a while?
P3: Princess chateau.
R: Let's play with it for a while.

P3 played with the princess chateau for a while, put the princess into the horse carriage and went to airport. She said that princess took on the plane and went to the knight castle. And then go back to the chateau. The guardsman safeguard while the princess was sleeping. She said that she likes pink, blue and purple.

Session with Participant 4
Researcher: Hi. Welcome. I brought four different toy sets for you and today we will play with those and I will also ask some questions to you while playing, is it OK?
Participant 4: OK.
R: For whom does this toy set (pointing the knight castle) is for? For girls or for boys?
P4: Boys play.
R: For whom does this toy set (pointing the farm) is for? For girls or for boys?
P4: Both.
R: For whom does this toy set (pointing the princess chateau) is for? For girls or for boys?
P4: For girls.

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R: Why girls play with this toy set?
P4: Because it is a palace.
R: For whom does this toy set (pointing the airport) is for? For girls or for boys?
P4: For both.
R: OK. Now I will bring some toys from the bag. For whom does this toy (showing the horses of carriage) is for? For girls or for boys?
P4: For boys.
R: Which toy set could this toy belong to?
P4: (Pointing the princess chateau and puting it there)
R: For whom does this toy (showing the pink plane) is for? For girls or for boys?
P4: Both. (Pointing the airport and puting it there)
R: For whom does this toy (showing the cow) is for? For girls or for boys?
P4: Boys. (pointing the farm and putting it there)
R: For whom does this toy (showing the knight horse) is for? For girls or for boys?
P4: Boys. (pointing the princess chateau and putting it there)
R: For whom does this toy (showing the princess) is for? For girls or for boys?
P4: For girls. (pointing the princess chateau and putting it there)
R: For whom does this toy (showing the male fire fighter) is for? For girls or for boys? Why?
P4: For boys. Because I have two brothers and they have toys like this (putting it to the airport)
R: For whom does this toy (showing the female farmer) is for? For girls or for boys?
P4: For girls. (pointing the farm and putting it there)
R: For whom does this toy (showing the grey male knight) is for? For girls or for boys?
P4: For boys.
R: Why it is for boys?
P4: I do not like to play with this because it makes war. (pointing the princess chateau and putting it there)
R: For whom does this toy (showing the bed) is for? For girls or for boys? Why?
P4: A bed. For girls. Because princesses sleep inside it. (pointing the princess chateau and putting it there)
R: For whom does this toy (showing the tree) is for? For girls or for boys?
P4: For both. (pointing the farm and putting it there)
R: For whom does this toy (showing the stepladder) is for? For girls or for boys?
P4: For both. (pointing the knight castle and putting it there)
R: For whom does this toy (showing the airport traffic sign) is for? For girls or for boys?
P4: For both. (pointing the airport and putting it there)
R: For whom does this toy (showing the cannon carriage) is for? For girls or for boys?
P4: What is this?
R: A cannon carriage. Is it for girls or for boys, what do you think? Why?
P4: For boys. I do not know why. (pointing the knight castle and putting it there)

R: For whom does this toy (showing the horse carriage) is for? For girls or for boys? Why?
P4: Car. For girls. (pointing the princess chateau and putting it there)
R: For whom does this toy (showing the fire engine) is for? For girls or for boys? Why?
P4: For boys. I do not like (pointing the knight castle and putting it there)
R: For whom does this toy (showing the tractor with trailer) is for? For girls or for boys?
P4: For both. (pointing the airport and putting it there)
R: For whom does this toy (showing the black male knight) is for? For girls or for boys?
P4: Again a knight. For boys. (pointing the princess chateau and putting it there)
R: For whom does this toy (showing the prince) is for? For girls or for boys?
P4: For both. (pointing the farm and putting it there)
R: For whom does this toy (showing the female police) is for? For girls or for boys?
P4: Is it a police? For both. (pointing the knight castle and putting it there)
R: For whom does this toy (showing the male farmer) is for? For girls or for boys?
P4: For both. (pointing the farm and putting it there)
R: For whom does this toy (showing the pink chest) is for? For girls or for boys?
P4: Chest. For both. (pointing the princess chateau and putting it there)
R: For whom does this toy (showing the cannon ball) is for? For girls or for boys?
P4: For both. (pointing the knight castle and putting it there)
R: For whom does this toy (showing the purple coach) is for? For girls or for boys?
P4: For both. (pointing the airport and putting it there)
R: For whom does this toy (showing the sheep) is for? For girls or for boys?
P4: For both. (pointing the farm and putting it there)
R: Now we placed all the toys to the toy sets. Which one do want to play for a while?
P4: Princess chateau.
R: Let's play with it for a while.

P4 played with the princess chateau. She said that she knew this princess and said that it was princess sinderella.

Session with Participant 5
Researcher: Hi. Welcome. I brought four different toy sets for you and today we will play with those and I will also ask some questions to you while playing, is it OK?
Participant 5: OK.
R: For whom does this toy set (pointing the knight castle) is for? For girls or for boys?
P5: Boys.
R: Why do you think it is for boys?
P5: Girls do not like.

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R: For whom does this toy set (pointing the farm) is for? For girls or for boys?
P5: Both can play.
R: For whom does this toy set (pointing the princess chateau) is for? For girls or for boys?
P5: For girls.
R: Why girls play with this toy set?
P5: Because it is a princess castle and girls want to play with princess.
R: For whom does this toy set (pointing the airport) is for? For girls or for boys?
P5: For boys.
R: Why?
P5: Girls do not want to play with airports.
R: OK. Now I will bring some toys from the bag. For whom does this toy (showing the horses of carriage) is for? For girls or for boys?
P5: For girls.
R: Why?
P5: Because of colors.
R: Which toy set could this toy belong to?
P5: (Pointing the princess chateau and puting it there)
R: For whom does this toy (showing the pink plane) is for? For girls or for boys? Why?
P5: For boys. Although it is pink. I do not want to play with it. (Pointing the airport and puting it there)
R: For whom does this toy (showing the cow) is for? For girls or for boys?
P5: For both. (pointing the farm and putting it there)
R: For whom does this toy (showing the knight horse) is for? For girls or for boys?
P5: For both. (pointing the farm and putting it there)
R: For whom does this toy (showing the princess) is for? For girls or for boys? Why?
P5: Princess. For girls. Because princesses are for girls. (pointing the princess chateau and putting it there)
R: For whom does this toy (showing the male fire fighter) is for? For girls or for boys? Why?
P5: For boys. (pointing the airport and putting it there)
R: For whom does this toy (showing the female farmer) is for? For girls or for boys?
P5: For both. (pointing the farm and putting it there)
R: For whom does this toy (showing the grey male knight) is for? For girls or for boys?
P5: Those are for boys.
R: Why it is for boys?
P5: Because it is male. (pointing the knight castle and putting it there)
R: For whom does this toy (showing the bed) is for? For girls or for boys?
P5: A princess bed. For girls. (pointing the princess chateau and putting it there)
R: For whom does this toy (showing the tree) is for? For girls or for boys?
P5: Everyone can play. (pointing the farm and putting it there)
R: For whom does this toy (showing the stepladder) is for? For girls or for boys?
P5: Stepladder. Both of them. (pointing the farm and putting it there)

R: For whom does this toy (showing the airport traffic sign) is for? For girls or for boys?
P5: Boys. (pointing the airport and putting it there)
R: For whom does this toy (showing the cannon carriage) is for? For girls or for boys?
P5: For boys. (putting it to the farm)
R: For whom does this toy (showing the horse carriage) is for? For girls or for boys?
P5: For girls. (putting it to the princess chateau)
R: For whom does this toy (showing the fire engine) is for? For girls or for boys? Why?
P5: For boys. I do not play with it. (pointing the farm and putting it there)
R: For whom does this toy (showing the tractor with trailer) is for? For girls or for boys?
P5: For boys. (pointing the farm and putting it there)
R: For whom does this toy (showing the black male knight) is for? For girls or for boys?
P5: For boys. (putting it to the knight castle)
R: For whom does this toy (showing the prince) is for? For girls or for boys?
P5: For girls. It is a female because wears pink (pointing the princess chateau and putting it there)
R: For whom does this toy (showing the female police) is for? For girls or for boys?
P5: For both. (pointing the airport and putting it there)
R: For whom does this toy (showing the male farmer) is for? For girls or for boys?
P5: For boys.
R: Why do you think that it is for boys?
P5: Because it is male. (pointing the farm and putting it there)
R: For whom does this toy (showing the pink chest) is for? For girls or for boys?
P5: For girls. To put something inside of it.
R: Why it is for girls?
P5: Because there is a heart on it. (pointing the princess chateau and putting it there)
R: For whom does this toy (showing the cannon ball) is for? For girls or for boys?
P5: For both. (pointing the farm and putting it there)
R: For whom does this toy (showing the purple coach) is for? For girls or for boys?
P5: For boys. (pointing the airport and putting it there)
R: For whom does this toy (showing the sheep) is for? For girls or for boys?
P5: For both. (pointing the farm and putting it there)
R: Which one do you like most?
P5: Princess chateau.
R: Do you want to play with it?
P5: Yes.
R: Let's play with it for a while.

P5 played with the princess chateau. She attached the horses to the carriage and put the princess inside. She put the accessories inside.

Session with Participant 6
Researcher: Hi. Welcome. I brought four different toy sets for you and today we will play with those and I will also ask some questions to you while playing, is it OK?
Participant 6: OK.
R: For whom does this toy set (pointing the knight castle) is for? For girls or for boys?
P6: For both.
R: For whom does this toy set (pointing the farm) is for? For girls or for boys?
P6: For both.
R: For whom does this toy set (pointing the princess chateau) is for? For girls or for boys?
P6: For girls.
R: Why girls play with this toy set?
P6: Because it is pink.
R: For whom does this toy set (pointing the airport) is for? For girls or for boys?
P6: For boys. Some girls may also like.
R: OK. Now I will bring some toys from the bag. Then we will talk about them. For whom does this toy (showing the horses of carriage) is for? For girls or for boys?
P6: For both. (Pointing the princess chateau and puting it there)
R: For whom does this toy (showing the pink plane) is for? For girls or for boys? Why?
P6: For both. Although it is pink boys can also play. (Pointing the airport and puting it there)
R: For whom does this toy (showing the cow) is for? For girls or for boys?
P6: For boys.
R: Why?
P6: Girls do not play with cows. (pointing the farm and putting it there)
R: For whom does this toy (showing the knight horse) is for? For girls or for boys?
P6: For boys.
R: Why do you think it is for boys?
P6: Because it is brown, girls do not like. (pointing the knight castle and putting it there)
R: For whom does this toy (showing the princess) is for? For girls or for boys? Why?
P6: For girls. Lets say Barbie. I do not want to play. Because it is female. (pointing the princess chateau and putting it there)
R: For whom does this toy set (showing the male fire fighter) is for? For girls or for boys? Why?
P6: For boys. Because there are not any female in fire stations. (pointing the airport and putting it there)
R: For whom does this toy set (showing the female farmer) is for? For girls or for boys? Why?
P6: For girls. Because it is female. (pointing the farm and putting it there)
R: For whom does this toy (showing the grey male knight) is for? For girls or for boys? Why?

P6: For boys. Because in chateau there are all males. (pointing the knight castle and putting it there)
R: For whom does this toy (showing the bed) is for? For girls or for boys?
P6: For both. (pointing the knight castle and putting it there)
R: For whom does this toy (showing the tree) is for? For girls or for boys?
P6: Both can play. (pointing the farm and putting it there)
R: For whom does this toy (showing the stepladder) is for? For girls or for boys?
P6: Stepladder. Both can play. (pointing the knight castle and putting it there)
R: For whom does this toy (showing the airport traffic sign) is for? For girls or for boys?
P6: A toy for boys. May be some girls like. (pointing the airport and putting it there)
R: For whom does this toy (showing the cannon carriage) is for? For girls or for boys? Why?
P6: For boys. Because boys do not throw cannon bal lor stone with fire. (putting it to the knight castle)
R: For whom does this toy (showing the horse carriage) is for? For girls or for boys? Why?
P6: For girls. Because it is in the movie of girls. A fairytale. I do not play with it. (putting it to the princess chateau)
R: For whom does this toy (showing the fire engine) is for? For girls or for boys? Why?
P6: For boys. Girls do not play. (pointing the airport and putting it there)
R: For whom does this toy (showing the tractor with trailer) is for? For girls or for boys?
P6: For both. (pointing the farm and putting it there)
R: For whom does this toy (showing the black male knight) is for? For girls or for boys?
P6: For boys. May be some girls like (putting it to the knight castle)
R: For whom does this toy (showing the prince) is for? For girls or for boys? Why?
P6: For girls. Because it wears pink girly cloth. (pointing the princess chateau and putting it there)
R: For whom does this toy (showing the female police) is for? For girls or for boys?
P6: For both. (pointing the knight castle and putting it there)
R: For whom does this toy (showing the male farmer) is for? For girls or for boys?
P6: Farmer. For both. (pointing the farm and putting it there)
R: For whom does this toy (showing the pink chest) is for? For girls or for boys?
P6: Chest. For both. I play with it. (pointing the princess chateau and putting it there)
R: For whom does this toy (showing the cannon ball) is for? For girls or for boys? Why?
P6: For boys. Because girls do not throw stone. (pointing the knight castle and putting it there)
R: For whom does this toy (showing the purple coach) is for? For girls or for boys?
P6: For both. (pointing the princess chateau and putting it there)
R: For whom does this toy (showing the sheep) is for? For girls or for boys?
P6: For both. (pointing the farm and putting it there)

R: Which one do you like most?
P6: Knight castle.
R: Do you want to play with it?
P6: Yes.
R: Let's play with it for a while.

P6 played with the knight castle. He put the knight to the tower and said that it will observe the enemy. He opened and closed the door of the castle. He said that he like the door of it because it is moveable. He lied the knight down on bed and put the bed inside the castle. He said that the police also observe around.

Session with Participant 7
Researcher: Hi. Welcome. I brought four different toy sets for you and today we will play with those and I will also ask some questions to you while playing, is it OK?
Participant 7: OK.
R: For whom does this toy set (pointing the knight castle) is for? For girls or for boys?
P7: For boys.
R: Why do you think so?
P7: Because girls do not like wars.
R: For whom does this toy set (pointing the farm) is for? For girls or for boys?
P7: For both.
R: Why?
P7: Because there is not war in farm.
R: For whom does this toy set (pointing the princess chateau) is for? For girls or for boys?
P7: For girls.
R: Why girls play with this toy set?
P7: Boys do not like because it is the chateau of Wings.
R: For whom does this toy set (pointing the airport) is for? For girls or for boys? Why?
P7: For boys. But some girls may like because there is no war.
R: OK. Now I will bring some toys from the bag. Then we will talk about them. For whom does this toy (showing the horses of carriage) is for? For girls or for boys?
P7: For girls. Boys do not like. (Pointing the princess chateau and puting it there)
R: For whom does this toy (showing the pink plane) is for? For girls or for boys? Why?
P7: For boys. Because planes can be in airports. (Pointing the airport and puting it there)
R: For whom does this toy (showing the cow) is for? For girls or for boys?
P7: For both. (pointing the farm and putting it there)
R: For whom does this toy (showing the knight horse) is for? For girls or for boys?
P7: For boys.

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R: Why do you think it is for boys?

P7: Because it is about wars. It is war horse. (pointing the knight castle and putting it there)

R: For whom does this toy (showing the princess) is for? For girls or for boys?

P7: For girls. I do not want to play. (pointing the princess chateau and putting it there)

R: For whom does this toy set (showing the male fire fighter) is for? For girls or for boys?

P7: For boys. (pointing the airport and putting it there)

R: For whom does this toy (showing the female farmer) is for? For girls or for boys? Why?

P7: For girls. Because it is female. (pointing the farm and putting it there)

R: For whom does this toy (showing the grey male knight) is for? For girls or for boys? Why?

P7: For boys. Because it makes war. (pointing the knight castle and putting it there)

R: For whom does this toy (showing the bed) is for? For girls or for boys?

P7: Bed. For girls. Knights do not sleep and watch fort he castle (pointing the princess chateau and putting it there)

R: For whom does this toy (showing the tree) is for? For girls or for boys?

P7: For both. (pointing the knight castle and putting it there)

R: For whom does this toy (showing the stepladder) is for? For girls or for boys?

P7: For boys. Because it is used in castles (pointing the knight castle and putting it there)

R: For whom does this toy (showing the airport traffic sign) is for? For girls or for boys?

P7: For both. (pointing the airport and putting it there)

R: For whom does this toy (showing the cannon carriage) is for? For girls or for boys?

P7: For boys. (pointing the knight castle and putting it there)

R: For whom does this toy (showing the horse carriage) is for? For girls or for boys?

P7: For girls. (putting it to the princess chateau)

R: Why do you think so?

P7: Because they do not use in castles.

R: For whom does this toy (showing the fire engine) is for? For girls or for boys? Why?

P7: A toy for boys. But some girls may like because fire fighting is a good thing. (pointing the airport and putting it there)

R: For whom does this toy (showing the tractor with trailer) is for? For girls or for boys?

P7: For boys. (pointing the farm and putting it there)

R: For whom does this toy (showing the black male knight) is for? For girls or for boys?

P7: For boys. (putting it to the knight castle)

R: For whom does this toy (showing the prince) is for? For girls or for boys?

P7: For girls. (pointing the princess chateau and putting it there)

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R: For whom does this toy (showing the female police) is for? For girls or for boys? Why?
P7: For girls because it is female. (pointing the airport and putting it there)
R: For whom does this toy (showing the male farmer) is for? For girls or for boys?
P7: For boys. Some girls may like. (pointing the knight castle and putting it there)
R: For whom does this toy (showing the pink chest) is for? For girls or for boys?
P7: Box for toys. For girls. (pointing the princess chateau and putting it there)
R: For whom does this toy (showing the cannon ball) is for? For girls or for boys?
P7: For boys. (pointing the knight castle and putting it there)
R: For whom does this toy (showing the purple coach) is for? For girls or for boys? Why?
P7: For girls. Because it is a girl caravan. But boys may also use this caravan but not knights, ordinary people (pointing the princess chateau and putting it there)
R: For whom does this toy (showing the sheep) is for? For girls or for boys?
P7: For both. (pointing the farm and putting it there)
R: Which one do you like most?
P7: Knight castle.
R: Do you want to play with it?
P7: Yes.
R: Let's play with it for a while.

P7 played with the knight castle. He said that there was a war in the castle and knights were watching for the castle. He said that the farmer was mining. He said that girls did not like this toy set because it is about war. He put the knight to the tower.

Session with Participant 8
Researcher: Hi. Welcome. I brought four different toy sets for you and today we will play with those and I will also ask some questions to you while playing, is it OK?
Participant 8: Yes.
R: For whom does this toy set (pointing the knight castle) is for? For girls or for boys?
P8: For boys. But some girls may be like.
R: For whom does this toy set (pointing the farm) is for? For girls or for boys?
P8: For both.
R: For whom does this toy set (pointing the princess chateau) is for? For girls or for boys?
P8: For girls.
R: Why girls play with this toy set?
P8: Boys do not like.
R: For whom does this toy set (pointing the airport) is for? For girls or for boys?
P8: For both.

R: OK. Now I will bring some toys from the bag. Then we will talk about them. For whom does this toy (showing the horses of carriage) is for? For girls or for boys? Why?

P8: Horse. For girls. Because of the colors of blue, yellow and pink. (pointing the princess chateau and puting it there)

R: For whom does this toy (showing the pink plane) is for? For girls or for boys? Why?

P8: For both. Because I like to play with planes. (Pointing the airport and puting it there)

R: For whom does this toy (showing the cow) is for? For girls or for boys?

P8: For both. (pointing the farm and putting it there)

R: For whom does this toy (showing the knight horse) is for? For girls or for boys?

P8: For both. (pointing the knight castle and putting it there)

R: For whom does this toy (showing the princess) is for? For girls or for boys? Why?

P8: For girls. Because it stars in a movie of girls. (pointing the princess chateau and putting it there)

R: For whom does this toy set (showing the male fire fighter) is for? For girls or for boys?

P8: Fire fighter. For boys. (pointing the the farm and putting it there)

R: For whom does this toy (showing the female farmer) is for? For girls or for boys?

P8: For girls. (pointing the farm and putting it there)

R: For whom does this toy (showing the grey male knight) is for? For girls or for boys? Why?

P8: For both. (pointing the knight castle and putting it there)

R: For whom does this toy (showing the bed) is for? For girls or for boys? Why?

P8: For girls. Because boys do not like girl toys. (pointing the princess chateau and putting it there)

R: For whom does this toy (showing the tree) is for? For girls or for boys?

P8: For both. Trees grow in farms. (pointing the farm and putting it there)

R: For whom does this toy (showing the stepladder) is for? For girls or for boys?

P8: For both. It requires for fire fighters. (pointing the farm and putting it there)

R: For whom does this toy (showing the airport traffic sign) is for? For girls or for boys?

P8: For both. (pointing the airport and putting it there)

R: For whom does this toy (showing the cannon carriage) is for? For girls or for boys?

P8: For boys. It guards the castle. (pointing the knight castle and putting it there)

R: For whom does this toy (showing the horse carriage) is for? For girls or for boys? Why?

P8: For girls. Because it a palace car. Princess always use this car. (putting it to the princess chateau)

R: For whom does this toy (showing the fire engine) is for? For girls or for boys?

P8: For both. It is fire fighter's. (pointing the farm and putting it there)

R: For whom does this toy (showing the tractor with trailer) is for? For girls or for boys?

P8: For both. (pointing the farm and putting it there)

R: For whom does this toy (showing the black male knight) is for? For girls or for boys?

P8: For boys. (putting it to the knight castle)

R: For whom does this toy (showing the prince) is for? For girls or for boys? Why?

P8: For girls. Because it is the husband of the princess. (pointing the princess chateau and putting it there)

R: For whom does this toy (showing the female police) is for? For girls or for boys?

P8: Both can play. (pointing the knight castle and putting it there)

R: For whom does this toy (showing the male farmer) is for? For girls or for boys?

P8: For both. (pointing the farm and putting it there)

R: For whom does this toy (showing the pink chest) is for? For girls or for boys? Why?

P8: Chest for gold. For both. Because it is pink and there is a heart on it. (pointing the knight castle and putting it there)

R: For whom does this toy (showing the cannon ball) is for? For girls or for boys?

P8: For both. (pointing the knight castle and putting it there)

R: For whom does this toy (showing the purple coach) is for? For girls or for boys?

P8: For both. To transport passengers. (pointing the airport and putting it there)

R: For whom does this toy (showing the sheep) is for? For girls or for boys?

P8: For both. (pointing the farm and putting it there)

R: Which one do you like most? Which one do want to play?

P8: Knight castle.

R: Do you want to play with it?

P8: Yes.

R: Let's play with it for a while.

P8 played with the knight castle. She put the knghts in front of the door. She said that she liked all the toy sets except the princess chateau. She said that she liked the movable door of the castle. Then she played with one of the knight and said that it is the king and put it inside the castle. She opened the door of the castle.

Session with Participant 9

Researcher: Hi. Welcome. I brought four different toy sets for you and today we will play with those and I will also ask some questions to you while playing, is it OK?

Participant 9: Yes.

R: For whom does this toy set (pointing the knight castle) is for? For girls or for boys?

P9: For boys.

R: Why do you think so?

P9: Because it is a castle. Girls do not want to play with it.

R: For whom does this toy set (pointing the farm) is for? For girls or for boys?

P9: For both.

R: For whom does this toy set (pointing the princess chateau) is for? For girls or for boys?

P9: For girls.

R: Why girls play with this toy set?

P9: Boys do not like. I do not want to play with it. Because it is a princess chateau.

R: For whom does this toy set (pointing the airport) is for? For girls or for boys?

P9: For both.

R: OK. Now I will bring some toys from the bag. Then we will talk about them. For whom does this toy (showing the horses of carriage) is for? For girls or for boys? Why?

P9: For girls. Because its colors like the colors of the chateau. (pointing the princess chateau and puting it there)

R: For whom does this toy (showing the pink plane) is for? For girls or for boys? Why?

P9: For girls. Because it is pink. I do not want to play with it because of its color. (Pointing the airport and puting it there)

R: For whom does this toy (showing the cow) is for? For girls or for boys?

P9: For both. (pointing the farm and putting it there)

R: For whom does this toy (showing the knight horse) is for? For girls or for boys?

P9: For boys. (pointing the knight castle and putting it there)

R: For whom does this toy (showing the princess) is for? For girls or for boys?

P9: For girls. Boys do not want to play. (pointing the princess chateau and putting it there)

R: For whom does this toy set (showing the male fire fighter) is for? For girls or for boys?

P9: For boys. Girls do not like. (pointing the the farm and putting it there)

R: For whom does this toy (showing the female farmer) is for? For girls or for boys?

P9: Both play. (pointing the farm and putting it there)

R: For whom does this toy (showing the grey male knight) is for? For girls or for boys? Why?

P9: For boys. Because it is male. (pointing the knight castle and putting it there)

R: For whom does this toy (showing the bed) is for? For girls or for boys? Why?

P9: Bed. For girls. Because it is girly decorated. (pointing the princess chateau and putting it there)

R: For whom does this toy (showing the tree) is for? For girls or for boys?

P9: For both. (pointing the farm and putting it there)

R: For whom does this toy (showing the stepladder) is for? For girls or for boys?

P9: For both. (pointing the knight castle and putting it there)

R: For whom does this toy (showing the airport traffic sign) is for? For girls or for boys?

P9: For both. (pointing the airport and putting it there)

R: For whom does this toy (showing the cannon carriage) is for? For girls or for boys?

P9: For both. Both girls and boys can play. (pointing the knight castle and putting it there)

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R: For whom does this toy (showing the horse carriage) is for? For girls or for boys? Why?

P9: For girls. I do not want to play. Because it a palace car. (pointing the princess chateau and putting it there)

R: For whom does this toy (showing the fire engine) is for? For girls or for boys? Why?

P9: For boys. Girls do not like vehicles. (pointing the farm and putting it there)

R: For whom does this toy (showing the tractor with trailer) is for? For girls or for boys?

P9: For both. (pointing the farm and putting it there)

R: For whom does this toy (showing the black male knight) is for? For girls or for boys?

P9: For both. (pointing the knight castle and putting it there)

R: For whom does this toy (showing the prince) is for? For girls or for boys? Why?

P9: A girl toy. Because it wears pink. (pointing the princess chateau and putting it there)

R: For whom does this toy (showing the female police) is for? For girls or for boys? Why?

P9: Police. For girls. Because it is female. I do not like it. (pointing the airport and putting it there)

R: For whom does this toy (showing the male farmer) is for? For girls or for boys?

P9: For both. (pointing the farm and putting it there)

R: For whom does this toy (showing the pink chest) is for? For girls or for boys?

P9: For both. Boys play and put a football ball into it. (pointing the princess chateau and putting it there)

R: For whom does this toy (showing the cannon ball) is for? For girls or for boys?

P9: For boys. Girls may play also. (pointing the knight castle and putting it there)

R: For whom does this toy (showing the purple coach) is for? For girls or for boys?

P9: For both. I play with buses. Girls may also like to play with buses. (pointing the farm and putting it there)

R: For whom does this toy (showing the sheep) is for? For girls or for boys?

P9: For both. (pointing the farm and putting it there)

R: Which one do you like most? Which one do want to play?

P9: Knight castle.

R: Do you want to play with it?

P9: No.

P9 did not played with the knight castle. He said that he liked the cannon ball and carriage most. He also said that if the knight castle had been pink, then the girls could have played with it.

Session with Participant 10
Researcher: Hi. Welcome. I brought four different toy sets for you and today we will play with those and I will also ask some questions to you while playing, is it OK?
Participant 10: Yes.
R: For whom does this toy set (pointing the knight castle) is for? For girls or for boys?
P10: For boys.
R: Why do you think so?
P10: Girls do not want to play with it.
R: For whom does this toy set (pointing the farm) is for? For girls or for boys?
P10: For both. I like to play with the farm.
R: For whom does this toy set (pointing the princess chateau) is for? For girls or for boys?
P10: For girls.
R: Why girls play with this toy set?
P10: This is girls' toy because of its color.
R: For whom does this toy set (pointing the airport) is for? For girls or for boys?
P10: For boys.
R: Why?
P10: Girls do not like planes.
R: OK. Now I will bring some toys from the bag. Then we will talk about them. For whom does this toy (showing the horses of carriage) is for? For girls or for boys? Why?
P10: For girls. Because its colors are the colors that girls like. (pointing the the farm and puting it there)
R: For whom does this toy (showing the pink plane) is for? For girls or for boys? Why?
P10: Plane. For boys. Boys play with planes and girls do not like. (Pointing the airport and puting it there)
R: For whom does this toy (showing the cow) is for? For girls or for boys?
P10: For girls. I do not like to play with cows. (pointing the farm and putting it there)
R: For whom does this toy (showing the knight horse) is for? For girls or for boys? Why?
P10: For boys. Because of its color. Boys like brown and girls do not like this color. (pointing the princess chateau and putting it there)
R: For whom does this toy (showing the princess) is for? For girls or for boys? Why?
P10: For girls. I do not like. Boys do not play with it because of its pink color. (pointing the knight castle and putting it there)
R: For whom does this toy set (showing the male fire fighter) is for? For girls or for boys?
P10: For both. (pointing the the farm and putting it there)
R: For whom does this toy (showing the female farmer) is for? For girls or for boys? Why?

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P10: Girls play with it. Because of its color. And because it is female. Green and yellow are liked by girls. (pointing the knight castle and putting it there)

R: For whom does this toy (showing the grey male knight) is for? For girls or for boys?

P10: For both. (pointing the princess chateau and putting it there)

R: For whom does this toy (showing the bed) is for? For girls or for boys? Why?

P10: For girls. Because of its color. (pointing the farm and putting it there)

R: For whom does this toy (showing the tree) is for? For girls or for boys?

P10: For both. (pointing the farm and putting it there)

R: For whom does this toy (showing the stepladder) is for? For girls or for boys? Why?

P10: Just boys play with it. Because boys like brown toys. (pointing the farm and putting it there)

R: For whom does this toy (showing the airport traffic sign) is for? For girls or for boys?

P10: For both. (pointing the airport and putting it there)

R: For whom does this toy (showing the cannon carriage) is for? For girls or for boys? Why?

P10: For boys. Girls do not like because of its color. (pointing the farm and putting it there)

R: For whom does this toy (showing the horse carriage) is for? For girls or for boys? Why?

P10: For girls. Because it is pink. If it had been black, then boys might have liked. This a girl toy. (pointing the airport and putting it there)

R: For whom does this toy (showing the fire engine) is for? For girls or for boys? Why?

P10: For boys. Girls do not like vehicles but boys like (pointing the farm and putting it there)

R: For whom does this toy (showing the tractor with trailer) is for? For girls or for boys?

P10: For boys. Girls do not like. (pointing the airport and putting it there)

R: For whom does this toy (showing the black male knight) is for? For girls or for boys?

P10: For boys. Boys like but girls do not. (pointing the princess chateau and putting it there)

R: For whom does this toy (showing the prince) is for? For girls or for boys? Why?

P10: For girls because of its color. (pointing the farm and putting it there)

R: For whom does this toy (showing the female police) is for? For girls or for boys? Why?

P10: For girls. Because boys like police. (pointing the airport and putting it there)

R: For whom does this toy (showing the male farmer) is for? For girls or for boys?

P10: Farmer. Boys play with it because of its hat. It is a boy hat. (pointing the knight castle and putting it there)

R: For whom does this toy (showing the pink chest) is for? For girls or for boys? Why?

P10: For girls. Because there is a heart on it. (pointing the farm and putting it there)
R: For whom does this toy (showing the cannon ball) is for? For girls or for boys?
P10: For boys. But some girls may like. (pointing the farm and putting it there)
R: For whom does this toy (showing the purple coach) is for? For girls or for boys?
P10: For boys. Boys play with it. (pointing the airport and putting it there)
R: For whom does this toy (showing the sheep) is for? For girls or for boys?
P10: For boys. Girls do not like animal. (pointing the farm and putting it there)
R: Which one do you like most? Which one do want to play?
P10: Farm
R: Do you want to play with it?
P10: Yes.
R: Let's play with it for a while.

P10 did not played with the farm. He said that there are everthing in the farm and people were working. He played with the cannon ball and carriage.