THE EFFECT OF PICTURE VOCABULARY GAMES AND GENDER ON FOUR YEAR-OLD CHILDREN'S ENGLISH VOCABULARY PERFORMANCE: AN EXPERIMENTAL INVESTIGATION

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ABSTRACT

THE EFFECT OF PICTURE VOCABULARY GAMES AND GENDER ON FOUR YEAR-OLD CHILDREN'S ENGLISH VOCABULARY PERFORMANCE: AN EXPERIMENTAL INVESTIGATION

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The study aimed to investigate the effectiveness of the educational games as a technique in the preschool-level English vocabulary learning of four year-olds. A true-experimental study design, specifically randomized pre-test, post-test control group design, was adopted. The sample was 33 private preschool children who were four years old. There were 17 females and 16 males in total. Data collection instrument was the 24-item English as a Foreign Language (EFL) Vocabulary Performance checklist prepared in accordance with the Total

Physical Response (TPR) lessons' content by the researcher. A pilot study, reliability and validity checks were done. In a four-week period, totally 24 vocabulary items were presented with picture cards by using Total Physical Response Method to both groups. In the experimental group, picture vocabulary games were used additionally while the control group did not receive picture vocabulary games. At the end, independent-samples t-test was conducted and the results indicated a significant difference in English Vocabulary achievement in favor of the experimental group which was taught by the educational picture vocabulary games with a large effect size. In addition, whether or not there was a gender effect on learning vocabularies of English as a foreign language with picture vocabulary games in the experimental group and without picture vocabulary games in the control group was investigated by means of t-tests. As a result, non-significant gender effect was found for both experimental and control group in learning English vocabulary.

Upon understanding the remarkable effectiveness of the picture vocabulary games on English language learning for four year-olds, it can be implied that more picture vocabulary games should be devised for very young learners by the experts for the classroom use and the number of the books about educational vocabulary games should be increased. Furthermore, policy makers ought to prepare English as a foreign language curriculum including games for early childhood education programs, and integrate a new course about teaching English to very young learners into foreign language teacher training and education

programs of the universities for pre-service teachers in the scope of a national

foreign language policy.

Keywords: English as a foreign language, vocabulary teaching, educational

games, very young learners, early childhood education.

ÖZ

RESİM-KELİME OYUNLARININ VE CİNSİYETİN DÖRT YAŞ ÇOCUKLARIN İNGİLİZCE KELİME PERFORMANSINA ETKİSİ: DENEYSEL BİR ARAŞTIRMA

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Bu çalışmanın amacı, eğitsel oyun tekniğinin dört yaş, okul öncesi öğrencilerinin İngilizce kelime öğrenimi üzerindeki etkisini araştırmaktır. Tam-deneysel çalışma dizaynı, yani rastgele seçilmiş öntest-sontest grup dizaynı kullanılmıştır. Çalışmanın örneklemini, 17 kız ve 16 erkek olmak üzere dört yaşında olan toplam 33 özel anaokulu öğrencisi oluşturmaktadır. Veri toplama aracı, TPR derslerinin içeriğine uygun olarak araştırmacı tarafından hazırlanan 24 maddelik Yabancı Dil Olarak İngilizce Kelime Performans Kontrol Listesi'dir.

Pilot çalışma, geçerlilik ve güvenilirlik çalışmaları yapılmıştır. Dört hafta süre zarfında iki gruba Tümüyle Fiziksel Tepki yöntemi kullanarak resimli kartlarla 24 kelime öğretilmiştir. Deneysel grupta resim-kelime oyunları kullanılırken kontrol grubunda resim-kelime oyunları kullanılmamıştır. Uygulamanın sonunda t-test analizi yapılmıştır ve resim-kelime oyunları ile öğrenen deneysel grubun lehine olarak iki grup arasında İngilizce kelime başarısı açısından etki büyüklüğü yüksek derecede anlamlı bir fark ortaya çıkmıştır. Buna ek olarak, deneysel grupta resim-kelime oyunlarıyla ve kontrol grubunda resim-kelime oyunları olmaksızın yabancı dil olarak İngilizce kelime öğrenimine cinsiyetin etkisi olup olmadığı da t-testler yoluyla araştırılmıştır. Sonuç olarak, hem deneysel hem de kontrol grup için İngilizce kelime öğreniminde önemsiz bir cinsiyet etkisi bulunmuştur.

Resim-kelime oyunlarının dört yaş çocukların İngilizce kelime öğrenimine kayda değer etkisi anlaşıldığına göre şu çıkarımlar yapılabilir: uzmanlar tarafından sınıf uygulamaları için daha fazla resim-kelime oyunları tasarlanmalı, eğitsel kelime oyunları konulu kitapların sayısı artırılmalıdır. Ayrıca yetkililer ulusal yabancı dil politikası kapsamında okul öncesi programlar için oyunları da içeren bir yabancı dil müfredatı hazırlamalı ve üniversitelerin yabancı dil öğretmenleri yetiştiren bölümlerine çok küçük çocuklara İngilizce öğretimi hakkında dersler konulmalıdır.

Anahtar Kelimeler: Yabancı dil olarak İngilizce, kelime öğretimi, eğitsel oyunlar, çok küçük öğrenciler, erken çocukluk eğitimi.

To My Family

ACKNOWLEDGEMENTS

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LIST OF SYMBOLS/ABBREVIATIONS

ASL: American Sign Language

EFL: English as a foreign language

FL: Foreign language

fMRI: functional Magnetic Resonance Imaging

IQ: Intelligence quotient

KR: Kuder Richardson

LAD: Language Acquisition Device

METU: Middle East Technical University

MONE: Turkish Ministry of National Education

NAEYC: National Association for the Education of Young Children

PASW: Predictive Analytics SoftWare

TPR: Total Physical Response

VYL: Very young learner

ZPD: Zone of Proximal Development

CHAPTER I

INTRODUCTION

This chapter covers the background of the study, purpose of the study, research questions, significance of the study, definition of terms and the limitations of the study.

1.1 Background of the Study

English language is a widely-used global language, a key and power in many fields such as science, technology, business, cinema, economy, travel and education. In addition, English is the most broadly taught and learned foreign language in many countries (Crystal, 1987) including Turkey. The noteworthiness of meeting a foreign language at early ages has been realized lately and in 1997 Turkish Ministry of National Education (MONE) implemented foreign language lessons for children younger than secondary school age. Thus, English as a foreign language became one of the compulsory courses for the fourth and fifth grades in primary schools all over Turkey (Egel, 2009). After three years, in 2000 MONE gave the opportunity of learning English to very young learners in early childhood programs, and decided to put foreign language into practice and supported English in early childhood programs for only five and six year-olds (Ministry of National Education, 2000). In this last decision of MONE, the four

year-olds were not included although the four year-olds, five year-olds and the six-year olds are all named as very young learners. Generally, very young learners are defined as children who have not begun mandatory, elementary education and have not developed literacy skills such as reading and writing yet. In other words, very young learners (VYL) mostly refer to children who are aged between three and six (Reilly &Ward, 1997). Due to their young age, characteristics and the absence of reading and writing abilities, ways of teaching a foreign language to VYLs include various techniques such as songs, games, storytelling and role-play (Larsen-Freeman, 2002). These techniques can also be used in Total Physical Response (TPR) Method, which is a combination of language and action, in that students actively respond to teacher's foreign language commands with their body movements. According to Asher (1993) TPR is appropriate for children as it suits children's age, strenghts, interests, and includes physical movement and involvement. Moreover, it is fun due to the fact that games, role-playing, storytelling activities which children like can be implemented as language teaching techniques in TPR. However, TPR is mostly used for beginners rather than intermediate or advanced level learners. Thus, it is appropriate and suggested for preschool children. Also this method gives priority to listening rather than speaking so it does not force children to speak and it does not create stress. Furthermore, TPR is based on comprehension and it is very easy to assess the comprehension of a child by observing his/ her responses to the teacher's commands. In other words, TPR fits the nature of very young learners and it is a

language teaching method in which children are actively involved by responding with physical movements to teacher's foreign language commands like babies do while they are learning their first language (Asher, 1993; Garcia, 1988).

TPR as a foreign language teaching method got its main idea from the first language learning. While acquiring the first language, babies initially babble sounds after a long silent period, they cannot speak but they can comprehend and respond to their parents' commands such as "Sit down!, Open your mouth and eat!, Close your eyes, sleep!". Babies use this language and action communication, and start to utter their first words, then gradually acquire their mother tongue, which was an inspiration for TPR (Asher, 1993, Gonzalez, Yawkey & Minaya-Rowe, 2006, Gordon, 2007).

As stated above, the phenomenon which the sequence of foreign language learning is similar to the first language learning backs up the Total Physical Response's main inspiration. In terms of foreign language learning sequence, researchers (Espinosa, in press; Gonzalez, Yawkey& Minaya-Rowe, 2006; Gordon, 2007; Hong, 2008; McLaughlin, Blanchard & Osanai, 1995; Saville-Troike, 1987) claim that firstly the learners are silent, they cannot speak the target language but they are active in listening sounds and comprehending the messages of the target language, then they start to communicate and respond by physical gestures. In time, foreign language learners use words or phrases, then sentences, and after mastering the language, they are able to use the target language productively.

As it is seen, first and foreign language learning begins and blossoms with learning sounds and vocabulary (McGlothlin, 1997). Vocabulary is the total words of a language (Webster, 1983) and it has got two types; *expressive* and *receptive vocabulary*. Expressive vocabulary is about using words by uttering, expressing them while receptive vocabulary is just about understanding the meanings of words (Brownell, 2000; Neuman & Dwyer, 2009). Expressive vocabulary of a child is assessed by his/ her looking at pictures and saying the vocabularies depicted on the pictures, on the other hand; receptive vocabulary is assessed by a child's pointing on the uttered vocabulary among pictures of vocabulary items. Only the recognition of the vocabulary is needed in the receptive vocabulary. That is why children's reservoir of receptive vocabulary is much more in number than that of their expressive vocabulary reservoir (Brownell, 2000). As in the first language learning, at the very beginning of a foreign language learning students understand more than they speak, then this demonstrates that their receptive vocabulary is greater than their expressive vocabulary (Gonzalez, Yawkey & Minaya-Rowe, 2006). For this reason, it is wise to test receptive vocabulary learning of very young children at the onset of a foreign language instruction as it is attempted to do in this study.

Vocabulary learning, in other words, vocabulary development is responsible for the most of the comprehension so it is a prerequisite for the foreign language development (Bromley, 2007; Davis, 1972). Naming objects gain importance at the beginning. Therefore, vocabulary comes first while

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teaching an additional language to very young learners as MONE suggested (Ministry of National Education, 2000). However, vocabulary teaching requires visual and concrete representations such as picture vocabulary cards for very young children because their comprehensions occur in concrete contexts (Gordon, 2007). In this study, picture cards on which there are related vocabulary items' colorful photos or depictions were used in the picture vocabulary games. Explicitly, picture vocabulary games are individual or group games that are played by using picture cards for teaching foreign language vocabulary items to children. Harmer (2007) supports that picture cards can be used in vocabulary games when teaching an additional language to very young learners.

Teaching an additional language to very young learners can include various techniques such as videos, storytelling, finger plays, singing and educational games (Larsen-Freeman, 2002). Among these techniques, educational games are suggested for all learners, also for very young learners due to the fact that games contain student-centered context, fun, co-operation, competition, motivation, low stress, active and social participation (Deesri, 2002; Fisher, 2004; Gillespie, 1974; Lengeling & Malarcher, 1997; Thithanh Huyen & Thitu Nga, 2003).

Due to the fact that children learn especially by being cognitively and socially active in games, Vygotsky's social-cognitive theory and the interactionist perspective of language development whose emphasis is on social interaction based this study. Learning is a social entity (Vygotsky, 1962, 1978) and Vygotsky

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(1997) stated that games "organize the higher form of behaviour, involve the resolution of rather complex problems of behaviour, require guess-work, quickness, and resourcefulness, and concerted and coordinated efforts of the most diverse capacities and forces" (p.90).

When the literature is reviewed, it is seen that the contribution of the educational games on foreign language vocabulary teaching was investigated in the world and also in Turkey (Ajibade & Ndububa, 2008; Anderson,1971; Ara, 2009; Atay, 2007; Cimcim, 2008; Cortez, 1974; Dervişoğulları, 2008; Elvin, Maagero & Simonsen, 2007; İnan, 2006; Kaya, 2007; Kılınç, 2005; Özaslan, 2006; Shaw, 2009; Susüzer, 2006; Şenergüç, 2007; Şenol, 2007; Tavil & İşisağ, 2009; Thi Ojeda, 2004; Thanh Huyen & Thi Thu Nga, 2003; Townsend, 2009; Yıldız, 2001), and in majority of the studies, the effectiveness of educational games in learning foreign language was favored. However, this was not investigated for four year-old preschool children.

Also, the gender effcet in learning foreign language was researched and in the literature the majority of the studies conducted in the world (Burstall, 1975; Carroll, 1975; Lewis & Massud, 1975; Loulidi, 1989; Lynn & Wilson, 1993; Nyikos, 1990; Olszewski-Kubilius & Turner, 2002; Politzer, 1983; Swiatek & Lupkowski-Shoplik, 2000) and in Turkey (Arslan, 2009; Behçetoğulları, 1993; Dursun, 2007) resulted in the superiority of the females in foreign language learning achievement. Despite this, one of the studies (Cross, 1983) found the males' superiority while some of the studies (Burgoyne, Kelly, Whiteley &

Spooner, 2009; Grace, 2000) indicated that there was not any significant difference between females and males in foreign language achievement. Consequently, the issue of the gender effect on foreign language learning had various results.

1.2 Purpose of the Study

Research (Anderson, 1971; Cortez, 1974; Ojeda, 2004; Shaw, 2009; Townsend, 2009) conducted on vocabulary teaching in foreign language exist in the literature; however, the sample of them varied from primary school learners to adults. Thus, there is a gap in studies exploring very young learners' English as foreign language (EFL) learning in early childhood education programs. There is not any sufficient study which is interested in the ways of English vocabulary learning or teaching to preschool children aging between three and six. One of the purpose of the current study, therefore, is to fill this gap in the literature by investigating whether or not games as a technique of teaching contributes to the preschool level-English vocabulary learning of four year-olds attending a private preschool in Ankara, Turkey.

On the other hand, whether or not there is a gender difference between four year-old females and males in learning vocabularies of English as a foreign language with picture vocabulary games and whether there is a difference between four year-old females and males in learning vocabularies of English without picture vocabulary games are attempted to investigate.

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In this study, initially the randomized pre-test, post-test control group design was adopted. As a pre-test and post-test, the researcher devised and used 24-item English as a foreign language (EFL) Vocabulary Performance Checklist which was prepared in accordance with the planned Total Physical Response (TPR) lessons'content. Totally, 33 four year-old children ($N_{females}$: 17, N_{males}: 16) were divided into experimental group as 17 children ($N_{females}$: 9, N_{males}: 8) and control group as 16 children ($N_{females}$: 8, N_{males}: 8) by assigning randomly. After both groups were pre-tested and compared to check the group's alikeness and equivalency statistically as Frankel and Wallen stated (2005), the implementation started.

During the four-week period, English vocabulary items were taught to the experimental group by the Total Physical Response (TPR) method including the game technique while the control group continued to be taught in the absence of these games with the same TPR method. In other words, TPR method was used for both experimental and control group instruction while the difference was the picture vocabulary games technique in approximately thirty minute - English lessons done twice a week.

After a four-week period, children were administered the same test, EFL Vocabulary Performance Checklist, individually as a post-test again by the researcher. The results of the two groups were compared to see whether picture vocabulary games contributed to the amount of English vocabulary learning of the four year-olds in the early childhood education by analyzing their English

vocabulary performance. To state more clearly, English vocabulary performance refers to a student's level of success in understanding the meanings of English words and respond by pointing the picture of the commanded vocabulary with his/ her finger. In this performance, the child tries to match the correct pronunciation of the vocabulary with the pictured vocabulary. In addition, English vocabulary performance is scored by means of English as a foreign language (EFL) Vocabulary Performance Checklist which was prepared in accordance with the Total Physical Response (TPR) lessons' content by the researcher. The checklist was attempted to assess each student's learning of 24 English language vocabulary items about animals and food with only one TPR command "Point to …". Basicly, three picture vocabulary cards were laid randomly on the floor and the child is commanded "Point to dog!". If the child points to the commanded vocabulary and performed correctly, s/he gains 1 point. If s/he cannot point correctly, s/he gains 0 point. In this way, each child has got a total score of English vocabulary performance and these scores are compared in the statistical tests.

Secondly, females and males in the experimental group were compared using their post-test EFL vocabulary performance scores to find the gender effect on learning vocabulary items of English as a foreign language with picture vocabulary games. Then, the same comparison was made in the control group to find the gender effect on learning vocabulary items of English as a foreign language without picture vocabulary games.

Thus, the following research questions lead the current study:

1. Is there a significant difference in the mean English as a Foreign Language (EFL) vocabulary performance scores between the experimental group which receives picture vocabulary games and the control group which does not receive picture vocabulary games in English vocabulary learning for four-year-olds in an early childhood education program?

2. Is there a significant effect of gender on EFL vocabulary learning for four-year-olds in an early childhood education program?

    a) Is there a significant effect of gender on EFL vocabulary performance scores in the experimental group which receives picture vocabulary games in learning English vocabulary ?

    b) Is there a significant effect of gender on EFL vocabulary performance scores in the control group which does not receive picture vocabulary games in learning English vocabulary ?

1.3 Significance of the Study

Investigating learning or teaching a foreign language for children is important because it is commonly agreed that there is a critical period till puberty for children to learn a foreign language like a native speaker especially in terms of pronunciation and profound comprehension of grammaticality judgement of the target language (Hakuta, Bialystok & Wiley, 2003; Johnson & Newport, 1989;

Flege, Yeni-Komshian & Liu, 1999; Krashen, Long & Scarcella, 1979; Oyama, 1976; Stevens, 1999). Thus, examining which methods or techniques are effective in teaching a foreign language to very young learners (VYLs) is significant.

On the other hand, young children, especially VYLs learn in various, different ways than adults: VYLs react to meaning even if they do not comprehend every single word. Additionally, learning is not straightforward for them in that they can learn from everything around with curiosity and eagerness. They look for personal attention, teacher approval and they comprehend not only by explanation, but also by experiencing, seeing, hearing and touching. However, abstract concepts, like grammar, are hard to understand for VYLs. Moreover, they have short concentration span, they lose interest after ten or fifteen minutes. In addition, imagination and creativity are must for them, and they love learning while having fun (Halliwell, 1992; Harmer, 2007). Consequently, what is presented as English language, how it should be presented, how much time it requires, which methods and techniques to be used must be considered in detail according to the learners' ages, individual-related properties, strengths, interests, needs, and culture (Bredekamp & Copple, 1997; Essa, 2003). For all these reasons, the way of teaching English to VYLs should be appropriate for them.

Among foreign language teaching techniques, educational games are seen as appropriate and powerful for very young children because the nature of the games fits the nature of the children. Games are fun for children and they include interaction, physical and cognitive activity, socialization, competition and co-

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operation. Moreover, children learn individual and group work, their motivation and interest increase in games. Also, games are child- centred, they can be adjusted according to the educational aims and the age levels of the children. Thus, games take an important role in children's lives (Deesri, 2002; Gillespie, 1974; Llach & Gomez, 2007; Lengeling & Malarcher, 1997; Shears & Bower, 1974; Thithanh Huyen & Thitu Nga, 2003). For these reasons, examining the effectiveness of the picture vocabulary games in learning English vocabulary is significant for four year-old children in early childhood education.

Furthermore, investigating whether or not appropriately devised educational vocabulary games enhance English vocabulary learning is important for policy makers, especially Turkish Ministry of National Education (MONE) because the classes of four year-old children were not included in the Ministry's English as a foreign language education decision in early childhood programs in 2000. In other words, MONE decided to put foreign language into practice and support English in early childhood programs for only five and six year-olds (Ministry of National Education, 2000). The findings of the current study are needed to help policy makers to make desicions about initiating English language teaching for four year-old preschool children and plan an English as a foreign language education program for four-aged classes of children in early childhood programs. Also, the educational vocabulary games and the elementary level vocabulary items used in the study may help as a guide for MONE's program planning.

1.4 Definitions of Terms

Total Physical Response (TPR): It is a foreign language teaching method based on the comprehension-based approach and commonly used in early childhood classrooms. Choral singing, playing games, directed drawing, pantomime, reading stories are among TPR activities. In TPR, teacher gives commands or directions in foreign language, after comprehending, children act and respond physically according to these commands like they responded to their mothers when they were babies. Hence, TPR's main idea has been inspired from the first language learning in which mothers encourage babies to respond by giving commands like 'clap-clap!, Say hello!, Sit down!, Look at your daddy!'. This language and action communication is used in TPR activities (Asher, 1993; Gonzalez, Yawkey & Minaya-Rowe, 2006; Gordon, 2007). Children are never pushed to speak because listening and understanding is a prerequisite for speaking, they are asked to speak and answer the questions when they are ready. Children listen and act, therefore, TPR activates the kinaesthetic memory which is the centre of movement, action. Due to this activation and the combination of movement and language, easy and quick comprehension occurs and what has been learned becomes more effective and long-lasting (Asher, 1993; Gordon, 2007).

Picture vocabulary games: Educational individual or group vocabulary activities designed to be played with very young children actively in the classroom environment by using picture vocabulary cards and TPR commands in order to present new words of vocabulary in a funny way to preschoolers. Picture

vocabulary games are designed and evaluated according to the TPR lesson content by the researcher. Harmer (2007) states that vocabulary games can be played with picture cards. The games used in this study were selected carefully according to four year-olds age and developmental levels defined in MONE's Early Childhood Education Program (2006).

Picture vocabulary cards: Portable and generally half A4-sized flashcards which depict the related vocabulary as a drawn or photographed picture (Harmer, 2007).

English vocabulary: Simple and age-appropriate words of English language that are presented with flashcards in English as a foreign language lessons for preschool children.

English vocabulary performance : The ability to comprehend the English words in meaning and respond physically in a correct way according to the teacher's commands like "Point to…" by matching the correct pronunciation of the word with the correct picture that illustrates the word. English vocabulary learning/ performance is assessed with the EFL Vocabulary Performance Checklist designed in accordance with the TPR lesson content by the researcher.

Four-year old children: Forty eight month-old preschool children whose mother language is well developed and motor development is mature. They love to be independent, self-confident. In addition, they can take age appropriate responsibilities. Four year-olds like joining in motor activities which include

moving, jumping, running etc. They are able to take turns, share, cooperate and take part in group plays with peers (Essa, 2003).

Early childhood education program: Educational program which aims to support 36-72 months old children's psychomotor, social, emotional, linguistic, cognitive and self-help skills and prepare them to be ready for elementary education. This program is child-centred, flexible, and open to be developed. Objectives and gains are essential, development characteristics are written separately for each age group, creativity is in the first place, the program requires teachers' planned working, parent involvement is important and lessons in this program include problem-solving activities and games (Ministry of National Education, Early Childhood Education Program, 2006).

Private preschool: Early childhood education program that is founded by individuals, and/or nongovernmental organizations but it is controlled and evaluated by the Ministry of National Education of Turkey (Ministry of National Education Regulations, 2004).

English as a foreign language lesson: Thirty-minute English as a foreign language class which is presented by a non-native English teacher in an early childhood education program.

Very Young Learners: The term refers to 3-6 aged children who have not begun elementary school and do not know reading or writing (Reilly &Ward, 1997).

Foreign language: A language becomes a foreign language when it is learned in a country where that language is not an official, native language of the community (Gass & Schachter, 1989). For example, English is a foreign language in Turkey. In addition, the concepts of foreign language, additional language and target language are used interchangably in this study.

1.5 Limitations of the Study

Public preschools were not included into the study. Moreover, this is a study which was conducted with 33 children who were four years old in a private preschool and only nouns were tested as an English language receptive vocabulary. In addition, the current study did not cover any qualitative work such as interviews and open-ended questions, for example, it did not include the opinions of the pre-service teachers, in-service teachers or parents.

On the other hand, this study used only Total Physical Response to present the English vocabularies to the students, and no other techniques rather than the games was used in the study. Moreover, the effect of games on pronunciation, grammar, writing or speaking was not examined.

In addition, this was not a longitudinal study that investigated the contribution of picture vocabulary games on English vocabulary learning for one or two educational year, in contrast it was a short term, four-week period investigation.

On the other hand, the use of Turkish language except the target vocabulary such as "Hangisi 'turtle göster!'in the second command for a performance of a child in this study's checklist implementation may be regarded as a limitation.

Lastly, the researcher was not the permanent English teacher of the students. In other words, the children were not familiar with the researcher for a long time, this may also be seen as a limitation.

CHAPTER II

LITERATURE REVIEW

The literature review in this chapter initially introduces the theoretical backround and the importance of foreign language learning in early childhood. Then, what early childhood education is and its brief history in Turkey is reviewed. Secondly, vocabulary development and games as a vocabulary teaching technique are explained. Later the research conducted about games as an educational tool in foreign language learning/ teaching in the world and in Turkey and the research conducted about the gender effect in learning foreign language in the world and in Turkey are reviewed. Lastly, the theoretical background is given and the literature review is ended with a summary and conclusion of the study.

2.1 Theoretical Background

Language learning by means of educational games requires many skills especially cognitive and social skills. Learners are active in thinking, responding and they are socially interactive with other learners in games (Gillespie, 1974; Lengeling & Malarcher, 1997). Thus, Vygotksy's social-cognitive theory (1962, 1978) which basicly claims that language develops by means of social interactions as well as intellectual abilities based the current study. Also, due to the emphasis on the importance of social interaction in learning language, this social-cognitive

view can be placed under the interactionist perspective of language development among other perspectives of language development such as behaviorist perspective and the innatist perspective (Cooter & Reutzel, 2004; Berk, 2006; Essa, 2003).

As the first perspective to the question of how language develops is the behaviorist perspective. It conveys that language is not an innate ability, but it is gained from the environment. Behaviourists such as Skinner (1974) argued that language is a behaviour that is learned by operant conditioning. According to this view, individuals in the environment reinforce the language development of a baby by smiling, hugging, speaking. For example, when the baby utters sounds like "mama, papa", the parents enhance their positive feedback and encourage the baby to repeat those sounds. The more language is reinforced, the more developed language occurs. Also, some behaviourists believe that language is learned by the imitation of the phrases and the sentences. Imitation gets together with reinforcement when a parent wants her child to say 'I want ice-cream' and gives a reward or a punishment according to the child's utterance (Brewer, 2001; Berk, 2006, Essa, 2003; Morrison, 2007).

The second perspective of language development is the innatist perspective. In this perspective language is believed to be innately structured in the brain (Berk, 2006). Since children are born with the genetically predetermined language ability, only if a child is exposed to a language, he speaks his mother tongue. Lenneberg (1967) has come to this conclusion because all members of the

human species develop a language, all of them start to speak a word approximately at the same age, language development follows a rigid, predictable sequence, and humans develop language instinctively instead of requiring a formal instruction. For all these reasons, Lenneberg strongly argues that language ability is innate in human species. He says that if a behaviour is observed in the entire species roughly at the same time, in the same way and sequence, then it can be judged as an innate behaviour such as the ducklings' following a moving object behaviour upon seeing shortly after being hatched (Lenneberg, 1964; Lenneberg, 1967).

Backing up the innateness theory of the language ability, Noam Chomsky argues that children are born with a Language Acquisition Device (LAD) in the brain to acquire language and it is activated when the child is exposed to a language spoken by the parents or other people. In addition, children already have the innate deep structure including LAD and universal underlying rules of grammar, after birth they learn specific vocabulary and grammar of their language, which is called surface structure (Chomsky, 1972).

Furthermore, genetical possessions that humans inherit support the innateness of the language ability because all humans have already larynx, pharynx, tongue, teeth, mouth and respiratory system, which enable the vocal communication by language. On the other hand, language is only possible with human brain. Language centre of the brain is mainly on the left hemisphere. However, various different parts of the brain including right hemisphere

participate in linguistic activities in different levels (Morrison, 2007; Neville & Bavelier, 1998). The evidence of lateralization of the language to the left hemisphere comes from the aphasic patients who have lesions on their left side of the brains. Broca's aphasics who have injured frontal part of the left hemisphere of the brain cannot form grammatically correct sentences, forget thematical word relations and lose language fluency while Wernicke's aphasics who have injured the back part of the left hemisphere which is close to the ear can speak fluently but what they say is senseless, meaningless. For all these reasons, language ability is mainly lateralized to the left, and specifically Broca's area is responsible for fluency and grammatical proficiency while Wernicke's area is responsible for language comprehension in the left hemisphere (Gordon, 2007; Neville & Bavelier, 1998). Consequently, all these evidences support the innateness of language development.

Lastly, the third perspective of language development is the interactionist perspective. In this perspective it is believed that language has both internal, innative and external, environmental properties. This view unites the two extreme theoretical points which are the behaviourist and innatist perspectives. In the interactionist view, children are not passive learners of language via their parents and environment or they are not innate language processors who trust only internal structures. It is claimed that there are many more interactive factors that contribute to language development such as social surrounding, maturation, heritage, cognition (Berk, 2006; Essa, 2003; Morrison, 2007).

There are two main interactionist views which are cognitive interactionist view of language development and social interactionist view of language development (Berk, 2006; Essa, 2003). As one of the first cognitive interactionist viewers, Piaget (1959) claims that child's language development is mainly related with his/ her cognitive development because the ability to comprehend language is the ability to represent objects cognitively. Language is a way of stating representational thoughts. By being active in the environment and discovering, children learn and construct their knowledge so their cognition and language develop. In the social interactionist view, language development is believed to be associated with the social interactions as well as the intellectual factors. Vygotsky (1962) argues that children's first social instrument is language and children develop knowledge, thoughts, attitudes, language by means of interactions with more capable adults, peers, parents. Consequently, social interactionist view supports that children develop and learn by means of socialization, active and collaborative learning, teacher-child co-operation and peer- assisted teaching. Due to the fact that the nature of educational games include physical and cognitive activity, collaboration, co-operation, competition, individual or team work (Bekiri, 2003; Bumpass, 1963; Llach & Gomez, 2007), the current study is based on the social interactionist view, specifically Vygotsky's Social-Cognitive theory.

2.1.1 Vygotsky's Social-Cognitive Theory

According to Vygotsky (1962, 1978) learning is a social entity. In addition, it is strongly supported that learning is an active and social event (Adger, Hoyle & Dickson, 2004; Holmes& Meyerhoff, 1999; Lave& Wenger, 1991; Rogoff, 1991; Wenger, 1999;). Children's development starts at the social level by means of social interaction, and then passes to the personal level. Children learn thought, language, their environment by socially interacting with other people. When an adult or peer assists the child in a problem solving, he moves higher from the independent "actual developmental level" to the guided "potential developmental level". This distance between the two levels is called "zone of proximal development" while the assistance is called scaffolding in which the helper gradually gives the responsibility to the child (Vygotsky, 1978, p.86). Games give the chance of activating children into their zone of proximal development (Fredericksen, 1999).

Vygotsky's social-cognitive theory paves the way for educators to avoid assigning children socially isolated, alone and quiet activities all the time such as pre-marked papers, colour sheet works (Edwards, 2002). Hence, games which include action, challenge, communication, collaboration and noise help children's development by providing the chance of rich and invaluable interaction for students.

Vygotsky (1997) stated that games "organize the higher form of behaviour, involve the resolution of rather complex problems of behaviour,

require guess-work, quickness, and resourcefulness, and concerted and coordinated efforts of the most diverse capacities and forces" (p.90). Since games are active, players think, learn, cooperate, compete, try to attain a goal and consume physical energy by moving (Fredericksen, 1999). Furthermore, Vygotsky (1997) believed in learning via individual experience and said "psychology requires that students learn not only to perceive, but also to respond" (p.48). Classroom games both provide an experiential structure and an opportunity to act, perceive and response to learn (Fredericksen, 1999).

2.2 The Importance of Foreign Language Learning in Early Childhood

For first language development, there is a sensitive period and Lenneberg (1967) first hypothesized that the innate language ability could develop only until a critical period which is believed to be until puberty. If this innate feature does not develop until the critical age, it cannot fully develop at later ages. For example, if specific bird species are deprived of hearing other birds' singing when they are very young, they cannot sing and learn to sing even if later they are exposed to other birds' singing.

The evidence of this critical age hypothesis or sensitive period hypothesis for humans come from deaf children and feral children who have been left in the wild, isolated from humans and any human language. Children who were left in total isolation and deprivation of humans and human speech during early years of their lives could not develop language fully after their rescue such as two Indian

girls, Amala and Kamala who were brought up by the wolves in the forest, and Genie who was left at about age one till thirteen in a room in total isolation. They could only learn some vocabulary and gain comprehension to some extent but they could not fully develop grammar of their native language and their communication skills remained limited (Berk, 2006; Gordon, 2007; Krashen, 1973; McCrone, 2003). Moreover, congenitally deaf children whose first languages were American Sign Language (ASL) were studied. Native learners were exposed to ASL since birth, early learners started to acquire it at the age of 4-6, and late learners learned ASL at 12 years old or older. Their ultimate attainment of ASL, and the production, comprehension were tested. It resulted that as the age of the exposure to their first language which was ASL increased, the performance and proficiency in the language decreased. Native learners achieved more than the early learners, and the early learners achieved better than the late learners in the tests. The more the age increases, the harder it will be to acquire the first language. Thus, it can be concluded that there is a sensitive period in first language learning (Newport, 1984).

Like the first language learning, when the sensitive period for additional language learning is mentioned, some researchers (Hyltenstam & Abrahamsson, 2001) state that there is no apparent compromise, and the evidences are inconclusive. However, there is a common view that the sensitive period for additional language learning exists. It is believed that if a child acquires the additional language before puberty until the age of 12, the child can reach the

ultimate attainment, mastery of that language. Thus, they become indistinguishable from the native speakers of that language. However, if that language is started to be acquired after the sensitive period, biologically set-up critical period hinders older learners from reaching the native like competence of that language.

The existence of the critical period in foreign language learning is supported by many studies (Hakuta, Bialystok & Wiley, 2003; Johnson & Newport, 1989; Flege, Yeni-Komshian & Liu, 1999; Krashen, Long & Scarcella, 1979; Stevens, 1999). In a longitudinal study, Johnson and Newport (1989) aimed to compare the English proficiency as a foreign language of 46 native Chinese subjects who moved to America at ages between 3-39, and subjects who had lived 3 to 26 years in America. The results revealed that subjects who came as prepuberty children achieved more in the tests. Moreover, as the arrival age increased and passed the puberty age, the performance of the subjects decreased in foreign language proficiency. Another study (Hakuta, Bialystok & Wiley, 2003) was conducted in America to test whether or not acquiring a second/ foreign language becomes harder after sensitive period. Approximately two million Spanish and Chinese immigrants who were America residents for ten years were asked to rate their mastery of second/ foreign language, English in the 1990 census. The results showed that as immigration age enhanced from infancy through early childhood and adulthood, mastery of the English decreased regardless of the education level of the immigrants. The average decline of older

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learners' achievement in second/ foreign language learning was evidenced by many more researches (Flege, Yeni-Komshian & Liu, 1999; Krashen, Long & Scarcella, 1979; Stevens, 1999). The younger is the better. Especially, younger second/foreign language learners are better in picking up the native like pronunciation (Oyama, 1976), and in developing proficient understanding of grammaticality judgement (Johnson & Newport, 1989).

All the results above support that learning a foreign language in early childhood is very important due to the fact that there is a critical or sensitive period for that language to reach the native-like mastery.

2.3 Early Childhood Education and Its History in Turkey

Early childhood education is a formal teaching and caring program which attempts to support 3-6 year-old children's developmental levels such as physical, social, emotional, linguistic, intellectual levels and self-help skills, and it aims to prepare very young learners to be ready for elementary school. In this child-centred program, children's imagination, creativity, critical thinking skills and communication skills are tried to be developed. Moreover, early childhood education programs have ordered timetables and this requires teachers' scheduled working. Also, the development of children are assessed in various ways, for example by observation, portfolios or tasks etc. Furthermore, early childhood education gives importance to parents' involvement in school activities and in the

education process for their own children's development (Ministry of National Education, Early Childhood Education Program, 2006).

The necessity of early childhood education was understood and the first early childhood education programs started in Turkey with Sibyan schools which meant children's schools. These schools were founded in 13th century and they used to give fundamental education and religious education. In time, they changed their name as preschools and spread over Turkey with the increase in the literacy rate in 1950s and 1960s. In the following years, Turkish Ministry of National Education (MONE) decided that all six year- old children should go to preschool. Due to the increasing demand, the government let the civil persons and private institutions establish preschools. Then, in 1992 Preschool Education General Directorate was formed within the body of MONE, which was an important attempt to co-ordinate early childhood educational services all over Turkey. Thus, having an early childhood education became children's right as well as their need (Kapçı & Güler, 1999; MONE Early Childhood Education General Directorate, 2009).

In the 2009-2010 education year, MONE made early childhood education compulsory for five year-old children in only 32 cities. As a result of this, schooling rate enhanced from 33 percent to 39 percent. In the following year, early childhood education was made compulsory for five aged-children in 25 more cities because the aim was to increase the early childhood schooling rate to 70 percent. In conclusion, in 2010- 2011 education year early childhood education

became mandatory in 57 cities out of 81 cities of Turkey and MONE recently stated that early childhood education was planned to be compulsory for all five year-old children in Turkey in four years (MONE Early Childhood Education General Directorate, 2009).

2.4 The History of English Language in Turkish Education

Foreign language education in Turkish schools initiated in 1950s by means of the establishment of universities with English-medium instruction. In approximately fifty years, the significance of foreign language instruction increased and it reached its peak with Anatolian High Schools in 1980s. These schools had intense and many hours of foreign language lessons, especially English, to enhance these public schools' quality to the level of private colleges (Üzüm, 2007).

In terms of secondary schools providing English-medium instruction in Turkey, there were 103 private and 90 public schools out of 193 in total in the years of 1987 and 1988. While public secondary schools with Turkish-medium instruction had three to six hours of English lessons per week, private secondary schools had nine to twelve hours per week in their programs. However, secondary school parts of Anatolian high schools had intense English-medium instruction during one or two year-long preparatory foreign language classes. In addition to English lessons, other languages such as German or French were presented in Anatolian high schools (Doğançay-Aktuna, 2010). Anatolian high schools meant

both secondary school and high school education because children had been admitted to these schools after elementary education. Thus, children used to start their secondary education in these Anatolian high schools in Turkey. Therefore, by means of these schools English as a foreign language (EFL) came down to the secondary education.

On the other hand, English as a foreign language was introduced to elementary education in 1997 as a compulsory subject in the state elementary schools for fourth and fifth grades for two classes in a week. However, in 2007 MONE enhanced weekly English lesson hours to three classes for fourth and fifth grades (Egel, 2009).

At last, lessons of English as a foreign language came down to early childhood education level in the 2000-2001 education year. MONE moved forward and decided to put foreign language into practice for very young learners. On 30 March 2000, MONE stated that first, second and third grades of elementary schools and early childhood programs were allowed to include a foreign language course for 5 and 6 year-old children. Thus, 4 year-old children were not included in the program. Only children of age 5 and 6 were determined to have foreign language classes in early childhood education programs according to MONE's foreign language teaching activity program which was attached to the decision (Ministry of National Education, 2000).

The attached English language program identification of MONE for early childhood education programs is as follows: English as a foreign language

program is aimed to be implemented according to the schools' educational environment properties. However, the schools are allowed to make arrangements according to their culture and characteristics by applying the general fundamentals of the program. According to this program, all educational activities in a foreign language (FL) class is done to make children realize that there are different languages other than their mother-tongue and learning a foreign language is fun. Furthermore, another aim of FL teaching in preschools is stated as developing listening and speaking skills other than language structures and grammar (Ministry of National Education, 2000).

Only for ages 5 and 6, a frame program of teaching is given as an outline of a foreign language class. The program consists of identifying the colours, learning the names of the objects in the close environment, learning names of the animals, flowers, vegetables, and identifying the family members, lastly counting from one to ten in the given foreign language. Moreover, the program determines the usable approaches and materials in FL class in early childhood education. MONE suggests Total Physical Response method for early FL teaching. As techniques songs, dance, games, riddles, role-plays, storytelling, drama, mimes and gestures are defined. Lastly, flashcards, posters, recorded cassettes, videos, CD-ROM programs and puppets are suggested as materials that can be used in a foreign language class in early childhood programs (Ministry of National Education, 2000).

2.5 Vocabulary

Vocabulary has various definitions, for example, according to BBC dictionary (1992) vocabulary is the sum of words a person knows in a specific language. Webster (1983) defines vocabulary as a list of phrases and words of a language while Merriam-Webster's Collegiate Thesaurus (1993) defines vocabulary as lexicon which is employed by a language, group or individual. Thus, vocabulary is a language element that needs to be developed and mastered by the learners of a language (Octaviany, 2007).

2.5.1 Vocabulary Development in Mother Tongue

Children acquire the language which they are exposed to and all children follow the same steps while acquiring the language. Some go faster, some go slower. However, the steps of language acquisition are universal. Language starts to develop from the very first day of birth. There is a *silent period* of babies before they begin to communicate by cooing when they are one-month old. At around six months, they move to *babbling stage* in which babies babble and imitate various sounds, especially consonants and vowels that make up the language. These consonants and vowels are repeated for fun and play. Finally, babies utter their first words around age one in *holophrastic stage*; however, these utterances are only one word. At around age two, *telegraphic stage* comes, and then they are able to say two or three word- phrases together containing verbs, nouns without grammatical factors such as prepositions, verb endings. After a

while, correct word order of the language, case markings, agreement rules, grammatical rules are acquired. At the ages between two and a half years old and three and a half years old, language explosion occurs. Language comes to *productive stage*. Through the ages four and five, as children develop, the language develops too. They start to be able to comprehend and form longer and complex sentences. Instead of forming two simple, separate sentences, children unite two ideas in one compound sentence (Ellis, 1994; Fromkin, Rodman & Hyams, 2002).

Towards the age of six, adult-like language develops. Children can use conjunctions in compound sentences, adjust subject-verb agreement, singularity and plurality. They know few abstract words beside the antonyms and synonyms of some words. Moreover, children at this age can ask questions, make jokes, and tell their daily experiences. Thus, they use the language competently (Brewer, 2001; Ministry of National Education, Early Childhood Education Program, 2006).

For language development, vocabulary development is an initial necessity for comprehension (French, Danielson, Conn, Gale, Lueck & Manley, 1990), specifically vocabulary contributes approximately 80 % of the comprehension (Davis, 1972; Bromley, 2007). Thus, vocabulary which is defined as the lexicon or words of a language and knowledge of their meanings (Merriam Webster's Collegiate Thesaurus, 1993) constitutes the essential part of the language. Moreover, children are the fastest learners of the mother tongue vocabulary (Read,

2000). If the vocabulary of a language is not known, the message cannot be conveyed (Elley, 1996). Hence, vocabulary knowledge is very vital. There are two vocabulary types which are *expressive vocabulary* and *receptive vocabulary*. Expressive vocabulary is related with the ability of expression and the usage of words while receptive vocabulary is related with the comprehension of meanings (Brownell, 2000; Neuman & Dwyer, 2009). When the expressive vocabulary is tested in early childhood, the child looks at a picture and says the word which best identifies the picture. Therefore, this requires finding words from the memory and pronouncing them. In contrast, when the receptive vocabulary is tested, the child is asked to point to the pronounced word among the pictures of several vocabularies. Only the recognition of the vocabulary meanings is necessary. Thus, the number of the receptive vocabulary of a young learner is much more than the number of his/ her expressive vocabulary (Brownell, 2000). Likewise at the beginning stages of a foreign language learning, pupils develop much more receptive vocabulary than expressive vocabulary (Gonzalez, Yawkey & Minaya-Rowe, 2006).

Furthermore, the development of vocabulary is rapid. To understand the extent of a child's language development, one may look for the amount of vocabulary the child knows. Young children can learn up to approximately ten words of vocabulary a day (Gordon, 2007; Miller & Gildea, 1987). Around two and a half years old, a child has got about 50 words (Morrison, 2007). At age three, the child has approximately 900-1000 vocabulary. At age four, he gets

about 1500-1600 vocabulary, and at age five, it increases up to 2100-2200 words (Owens, 1996), while at age six this vocabulary treasure expands to approximately 5000-7000 words before formal reading instruction (August, Carlo, Snow & Dressler, 2005; Biemiller & Slonim, 2001). It is very astonishing that a very young child gains so many words of vocabulary in such a short time, and this is an evidence of how language develops rapidly.

In the current literature, there are some studies conducted in order to understand how children learn vocabulary, for example, an experiment was conducted by Carey and Bartlett in 1978. A colour vocabulary "chromium" was selected and nineteen children between three and four years old were taught indirectly in the context by saying "You see two trays over there. Bring me the chromium one. Not the red one, chromium one." At the end, most of the children brought the correct tray. Thus, from the context the children could understand the word "chromium" was related with colour and could learn it as a new vocabulary. After a week, children were assessed again. They could still remember the "chromium". Furthermore, they could remember that vocabulary even after two months. It shows that very young children are able to learn new vocabulary and its meaning upon only one exposure in seconds in the context (Carey & Bartlett, 1978, p.18). It is indicated that by being in a meaningful language environment, children learn language, specifically vocabulary when they use them purposefully and functionally (Adger, Hoyle & Dickson, 2004; Dickson & Caswell, 2007).

Children learn a lot of vocabulary very fast in a short time luckily because vocabulary development is so significant in academic success and in daily life that students who know more vocabulary do remarkably better than their class mates who have less vocabulary (Morrison, 2007; Snow, 1991; Wasik, 2010). Moreover, there are positive correlations between pupils' amount of vocabulary and their reading skills. The more vocabulary is known, the more comprehension occurs (Graves, 2008).

2.5.2 Vocabulary Development in Foreign Language

Developing rich vocabulary is important not only for first languages but also for foreign languages, since, communication and literacy skills are enhanced by the vocabulary gain in the target language (Gordon, 2007).

A sequence has been defined for learning a second/foreign language. Four stages which are similar to the first language learning have been identified although the duration of them varies from person to person due to many elements such as learning environment, individual differences, interest, and motivation. First the *silent/preproduction stage* comes, in this stage learners do not speak the target language or prefer using their first language to communicate because people who are learning a foreign language already know their first, native language and its vocabulary. Then, after being in a different language environment for some time, the learner starts to try communicating by gestures, pointing, nodding, moving hands or eyes without speaking the target language. However, he is active

in listening to the target language's sounds and comprehending the messages conveyed. This stage is called *nonverbal/early production stage*. The length of this period varies. Some try to say their first words of the foreign language after two or three weeks, some try to speak after months. *Telegraphic speech stage* follows the nonverbal one. In this stage, the learner speaks with two or three content words and formulaic phrases which give the basic, essential message like telegraphic speech of first language such as 'finished, no way, okay, look-it, That-is-a, I-am-a'. In *productive language-use stage*, learners try to form whole sentences. When they learn the language efficiently, they are able to use it in a creative way by forming sentences productively (Espinosa, in press; Gonzalez, Yawkey& Minaya-Rowe, 2006; Gordon, 2007; Hong, 2008; McLaughlin, Blanchard & Osanai, 1995; Saville-Troike, 1987).

Children learn a foreign language vocabulary relatively rapid, and gain the target language vocabulary more easily when they get it unconsciously and indirectly in the context. For example, instead of memorizing foreign words as an intentional vocabulary learning, children learn vocabulary better while listening to a story book , joining a conversation, playing games in that language. Thus, the vocabulary becomes a tool to reach the goal of communication by this incidental vocabulary learning. Hence, comprehension based, communication based teaching methods do better in foreign language classrooms rather than grammar-based lessons which focus on the structure while neglecting the message communication, which is the main function of the language (Gordon, 2007).

A sequence identification of additional language vocabulary development is given by other researchers (Belisle, 1998; Gass, 1988; Paribakht & Wesche, 1996). *Apperceived input* is the first stage when the learner realizes the target language's vocabulary and relates it with the past knowledge. Then, *comprehended input* occurs when the learner comprehends the vocabulary successfully. The third stage is the *intake stage* when the learner employs the vocabulary in different contexts. In time, *integration* occurs when the learner internalizes the target language's vocabulary and the *output stage* is the last stage when the production of the target language vocabulary is observed.

2.6 Total Physical Response (TPR) Foreign Language Teaching Method

Total Physical Response (TPR) is a comprehension-based language teaching method which is usually used for beginner learners. It has been developed by James J.Asher who is a professor of psychology at San José State University in USA. TPR is the combination of language and action. Language has been traditionally believed to be lateralized on the left hemisphere of the brain. However; James J. Asher (1993) took attention to right hemispheric learning by saying motor activities are functions of the right hemisphere and they should precede the left hemispheric language functions. With this idea he devised and developed additional language teaching method called Total Physical Response (TPR) in 1977. In TPR class, children first listen, then act, therefore; TPR first activates the kinaesthetic memory which is the centre of movement, action in the

right hemisphere. Due to this activation and the combination of movement and language, easy and quick comprehension occurs and what has been learned becomes more effective and long-lasting and stress-free (Asher, 1993; Gordon, 2007). "When children connect word and action, foreign words cease to be sound shells that contain some tentative meaning. Rather they are filled with full-bodied real life meaning" (Gordon, 2007, p. 81).

In a TPR classroom, comprehension of the learners is the initial object. The way students learn a foreign language in TPR is like the way they learn their first language (Asher, 1993; Krashen, 1999). Foreign language teachers resemble caregivers who talk to babies and do not demand any answer until they utter their first words months later (Gordon, 2007). At the onset, students only listen. However, listening is not a passive activity of hearing information; it is receiving and processing the information. Also, good listeners are active while listening, they pay attention, process in mind and respond accordingly (Mayesky, 2006). When students are ready and start to comprehend the given information, they can respond verbally or physically in the following classes. Comprehension precedes the production in TPR. This is also supported by Krashen's Input Hypothesis (Krashen, 1999) which claims that an additional language can only be learned by receiving understandable input.

In TPR, teachers assist young foreign language beginners to understand the oral language as much as possible by using simple language with brief breaks, repetition, restatement and gestures in class activities such as playing games,

reading books. Moreover, teachers add action, picture showing into these activities to make the meaning visually concrete and clearer to each child via the picture vocabulary cards depicting the related vocabulary. On the other hand, routines which are repeated sentences, phrases or actions indicating the start, transition and the end of activities are used since they have important roles in comprehension at early ages. When routines are repeated several times, children will easily understand the general meaning, know what to do next and feel safe (Gordon, 2007).

As Total Physical Response teaching is based on the comprehension-based approach, it is commonly used in early childhood classrooms. Role-playing, games, directed drawing, pantomime, reading stories can be used as TPR activities in a foreign language classroom. In Total Physical Response, the teacher gives directions or commands in foreign language, models the performance himself alone or with a group of student physically for several times. Upon comprehending, students act and respond physically in groups or individually according to these commands as they responded to their mothers when they were babies. Hence, TPR's main idea has been inspired from the first language learning in which mothers encourage babies to respond by giving commands like 'clap-clap!, Say hello!, Sit down!, Look at your daddy!'. This language and action communication is used in TPR activities in foreign language classrooms (Asher, 1993; Gonzalez, Yawkey & Minaya-Rowe, 2006; Gordon, 2007). Children are never pushed to talk in foreign language; they speak and answer the questions

when they are ready. Asher argues that talking resembles to walking, in that forcing the students to speak a foreign language at the very beginning is useless as forcing is useless in walking before the child is ready. Firstly, the learner should internalize the target language for a while then, the speech comes automatically (Asher, 1993). In TPR vocabulary, adjectives, grammar, verbs, pronunciation aspects of the language are given implicitly in the commands according to the language levels of the learners (Asher, 1993; Wolfe & Jones, 1982).

Action, movement and also music are important in Total Physical Response Method. Dancing with music and singing all together are delightful, in addition they give children opportunities to learn coordination and " listen, respond, imitate, and use their voices, fingers, hands, arms and bodies in ways that are creative and uniquely theirs" (Edwards, 2002, p.103). Also, music and songs are not only easily-remembered and relaxing motivation sources but also they help language development. With music and songs, grammar can be practised, listening skills can be developed, translation or dictation of songs can be done, gap filling or correction exercises can be prepared, pronunciation and intonation can be studied, and vocabulary can be taught according to the level of the classroom (Murphey, 1992). There are different types of songs such as old traditional folk songs, nursery rhymes, lullabies and action songs. However, songs for very young children have some properties. They should not be too long and hard to sing, moreover; they should have repetitions of the same melody, words or phrases. Teachers should choose culture-appropriate songs. On the other hand,

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among other songs, TPR songs which are action songs give children the chance of acting while singing according to the directions of the song. They give direct, concrete and individual experience to very young children. Therefore, action songs which let the children move are best for very young learners (Edwards, 2002). "With young children, language divorced from action seems to be mostly forgotten" (Murphey, 1992, p.121).

Asher (1993) says that the left hemisphere of the brain is mainly used while "analyzing, talking, critiquing, discussing, explaining" and the right hemisphere is mainly used while " acting, drawing, playing games, gesturing, pointing, singing, storytelling, touching and doing tasks such as sewing, cooking" (p.87). Thus, for having balanced education and balanced development, the right hemisphere of the brain which is responsible for visual, nonverbal functions, imagination should also be included in foreign language teaching by art, music, dance and games (Edwards, 2002).

2.7 Vocabulary Teaching in Foreign Language

Messages are conveyed with words so one should have enough vocabulary of the language to communicate. Moreover, comprehension, fluency and success are strongly bound to vocabulary (Bromley, 2007; Uberman, 1998). Therefore, learning vocabulary is very significant and there are various ways of vocabulary teaching in foreign language classes such as role-playing, storytelling, singing, problem solving tasks, videos, co-operative projects and vocabulary games

(Larsen-Freeman, 2002), crossword puzzles and finger plays (Cortez, 1974). To enhance the vocabulary and support the vocabulary development, Blachowicz and Fisher (2004) suggested parents, teachers to read to children and play vocabulary games with them.

2.7.1 Games

Games are individual or group classroom activities which include specific directions, prescribed rules and goals (Deesri, 2002; Shears & Bower, 1974). There are various kinds of games such as "recreational, pedagogical, therapeutic" (Shears & Bower, 1974, p.61).

Recreational games are the games that are played just for fun while the therapeutic games are the games or game-like situations which are used as devices to diagnose or cure a problem in psychology and psychiatry. Furthermore, pedagogical, in other words, educational games are teaching tools and they are the games in which students are in active participation and interaction cooperatively or competitively. Also, educational games create meaningful, useful and funny context for learning at all ages and at all levels. Therefore, games are used as powerful educational tools in various fields such as science, math, language, especially for foreign language vocabulary learning (Shears & Bower, 1974).

Educational games are used frequently due to their benefits. They give students responsibility and the opportunity of being active physically and mentally, they are student-centred rather than teacher-centred, they easily grab

children's attention, increase their interaction and are fun to play in the formal academic process, and socialize students. In addition, students gain or develop many skills such as taking turns, working individually and working with others as a team toward a common goal (Gillespie, 1974). Furthermore, games motivate the language learners, decrease their anxiety and stress, keep their interest alive, reinforce the development of their cognitive and social skills, and initiate communication between pupils (Deesri, 2002; Lengeling & Malarcher, 1997; Thithanh Huyen & Thitu Nga, 2003) and wipe out the monotonous classroom atmosphere (Kim, 1995). A good language game has some characteristics; it needs a little or no beforehand preparation, it should not be too complex to play, it should take appropriate time and space in the classroom, it should provide fun without creating a chaos atmosphere (Dobson, 1970), it should receive responses from the majority of the students, it should have a learning objective and help in regular language class and it should suggest a sufficient movement to enhance interest and change the routine atmosphere of the class (Bumpass, 1963). Luckily, educational games which include movement fit the characteristics of the very young children because they are full of energy and physically very active. They love to play, dance, repeat, run, imitate, discover and they are eager to learn (Llach & Gomez, 2007). The main point is the selection of the games which are appropriate to age and language level of the classroom. After selecting the suitable game, the teacher should tell the game's aim and rules to the students preferably

in mother tongue for younger ages (Deesri, 2002; Wright, Betteridge & Buckby, 1979).

The competitive function of games increases the willingness of learners in terms of participation, goal attainment and learning without any fear of making mistake and stress. In addition, co-operation makes weak learners learn by the help of better learners (Bekiri, 2003).However, games for very young children should not be strictly competitive instead there should be friendly, competition-like funny atmosphere (Yong Mei & Yu-jung, 2000).

Educational games can be mainly divided into three categories; *grammar games*, *listening and spelling games*, *vocabulary games* (Cortez, 1974). Grammar games are activities that are related with word order, function words and inflections. Listening games are activities which are related with sounds, pronunciation and spelling. Finally, vocabulary games, as in this study, are games that focus on content words such as nouns, adjectives, verbs.

In early childhood classrooms for vocabulary games, vocabulary items to be taught need visual and concrete representations because their meanings are understood after forming mental representation in the mind and these representations are constructed in concrete contexts. For example, a parent says bird while showing the bird at the window or in the picture (Gordon, 2007). Thus, teachers benefit from picture cards on which related vocabulary items are depicted colourfully, and use them as tools in games to function as concrete representations of words, as in this study. Moreover, demonstrating a picture or drawing a picture

is one of the ways of taking attention and making children focus on the
vocabulary (Nation, 2005).

2.7.1.1 Games as an educational tool in FL teaching in the world

The use of games as an educational tool in foreign language education
field was tested and studied many times at different grades and school levels
around the world and most of them resulted in the effectiveness of the games in
language education (Ajibade & Ndububa, 2008; Anderson,1971; Ara , 2009;
Cortez, 1974; Elvin, Maagero & Simonsen, 2007; Thi Ojeda, 2004; Shaw, 2009;
Thanh Huyen & Thi Thu Nga, 2003; Townsend, 2009).

In the world qualitative studies about games were done in different school
levels. Firstly, in secondary and high school levels Thi Thanh Huyen & Thi Thu
Nga (2003) conducted a study to investigate the thoughts, attitudes, experiences of
Vietnamese secondary and high school students who were learners of English as
foreign language and their language teachers about vocabulary learning/teaching
with games. The English classes including games, teachers, and students were
observed, interviewed during two weeks. It was seen that most of the students
were eager to participate in the individual or group classroom games actively.
Moreover, the majority of the students, 18 out of 20, expressed that they liked
games due to the stress-free, motivational and funny atmosphere and believed that
games helped them in learning vocabulary. A similar study was done in the
primary school level in Bangladesh to reveal that how English lessons as a foreign

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language took place and whether or not songs, games were used in the classrooms. Fifteen classes of first to fifth grades were observed and ten primary level English teachers of two schools were interviewed during three weeks. Unfortunately, it was found that an insufficient, inappropriate textbook which did not include fun activities for young children was followed in primary level English classes in Bangladesh. Moreover, in classrooms mostly native language, Bangla, was used instead of English. Young learners were inactive and they were sitting and working on grammar from the board by means of memorization. Furthermore, observations and interviews revealed that teachers most of whom had no appropriate education to teach young language learners did not use activities such as songs, rhymes or games in the primary level foreign language classes (Ara, 2009).

In the early childhood level, Norwegian researchers, Elvin, Maagero and Simonsen (2007) did a qualitative study about foreign language teaching on the purpose of observing very young children's learning English as a foreign language in Norway during a year. English was taught twice a week to children aged between three and five in two preschools, in the state and in the private preschools by means of games, songs, role plays, stories, pictures and films. The results gathered from observations, journals, interviews demonstrated that children became aware of the existence of another language, English and they learned a certain amount of English words, expressions with fun.

The majority of the quantitative studies like qualitative studies mentioned above, indicated the effectiveness of the games in foreign language learning in the world. In USA, adults' and university students' foreign language vocabulary learning and motivation were investigated. For instance, 50 Korean adult-students aged between 22 and 48, and learning English as a foreign language were tested during five weeks. Vocabulary games such as bingo, memory games were played and vocabulary tests were done as pre-test, post-test and interviews were done. The results revealed that all of the students' scores increased in the post test after receiving vocabulary games, and the interviews showed that games can enhance the motivation, fun and vocabulary learning in the adult classroom (Shaw, 2009). Likewise, games can enhance the foreign language learning motivation in university students' classrooms according to the study of Ojeda (2004). The sample was 118 students aged between 17 and 22. A quasi-experimental study was done for a semester with an experimental group of 64 students and a control group of 54 students who were taking elementary college-level Spanish classes. The experimental group was provided with vocabulary games in Spanish lessons while the control group was not provided with games. Before and after the implementation, motivation questionnaires were given to the students and interviews were done. The quantitative results did not reveal a statisticallly significant difference between groups in terms of motivation; however, the qualitative results were positive. The majority of the university students reported that they enjoyed the classes and the vocabulary games increased their motivation

in learning Spanish. Also, teacher interviews indicated that vocabulary games constituted a relaxed, funny, familiar and free learning environment that promoted the students' motivation (Ojeda, 2004).

In the secondary school level, students were tested to see whether games contribute to English academic vocabulary. A quantitative study (Townsend, 2009) was conducted with thirty seven students whose first languages were Spanish, Gujarati, Japanese, Vietnamese and Arabic. There were two groups including 17 and 20 students joining the treatment as language workshop classes which were twenty sessions after school. In these classes vocabulary games were played and pupils were tested before and after the treatment with twenty-item vocabulary knowledge scale. T-tests were done to see the students' vocabulary growth. The results indicated a significant growth in secondary students' vocabulary after the language classes which included games. This significant result was also supported by another pre-test, post-test control group design experimental study (Ajibade & Ndububa, 2008) done in ten public secondary schools. Its aim was to investigate whether or not the vocabulary games and cultural songs, stories affect Nigerian second-grade secondary school students' English achievement and motivation. The sample was 100 students. In three-week period the experimental group was taught English vocabularies through games stories and songs while the control group was taught through traditional instruction. T-tests and questionnaires were implemented. The t-test analysis of the post-tests of the two groups showed a significant difference between the

experimental and the control group. However, it resulted that there was no significant motivation difference between the groups.

Both studies above (Ajibade & Ndububa, 2008; Townsend, 2009) revealed that games were effective on learning vocabulary of English as a foreign language in the secondary school; however, in the primary school level one of the studies (Anderson, 1971) could not indicate the effectiveness of the games. In the study of Anderson (1971), the effect of vocabulary games on vocabulary enhancement of primary first-grade students was invesitgated in Texas, USA. There were fifty two students in the experimental group and twenty one students in the control group, randomization was not done. During four weeks, experimental group received games while the control group did not. A vocabulary test was conducted as pre-test, post-test and comparisons were made. However, no significant difference emerged between the experimental and the control group in that any effect of vocabulary games was not found on vocabulary learning of first-grade primary school students. In contrast, Cortez (1974) found a significant effect of games technique for third-grade primary school students. In the study games technique and the combination of the dialogue and games techniques were compared to see which technique would make a significant contribution to Spanish third-grade students' English learning. Also, the sample was 60 Spanish students who had moved to America not earlier than six months before the study started. Totally twelve sessions of English classes of thirty minutes duration were given in a month to two groups. One group of 30 students learned twenty five

English vocabulary through seven language games as the first phase then through both dialogues and games as the second phase, the other group received English through dialogues and games as the first phase then through games only as the second phase. The teaching techniques were reversed in the second phase to refrain from other variables such as students' IQ, gender, language interest etc. At the end, the students' achievement to recognize the written counterparts of the English vocabulary was tested after first and second phases by English tests. In conclusion, independent t-test results indicated a significant difference between groups in favour of the group which received only language games in English achievement in the first phase and the second phase. In other words, the games technique was significantly more effective than the combination of the games and dialogue technique for third-grade Spanish students learning English.

When the gender effect on foreign language learning was reviewed in the literature, many studies were found in the world revealing that females achieved higher than males in foreign language learning (Burstall, 1975; Carroll, 1975; Lewis & Massud, 1975; Loulidi, 1989; Olszewski-Kubilius & Turner, 2002; Politzer, 1983; Swiatek & Lupkowski-Shoplik, 2000). For instance, in adult foreign language vocabulary learning, Nyikos (1990) found females' superiority in German vocabulary learning. Moreover, in the primary school level the results of the study of Lynn and Wilson (1993) supported the females' success in foreign language learning too. In the study students who were between eight and fourteen ages were tested on their Irish as a foreign language achievement and a significant

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difference was found between females and males favoring the females in a primary school.

In contrast to the results about females' superiority in learning foreign language, few studies (Cross, 1983) existed concluding that there was gender effect in learning foreign language vocabulary in favor of males. In other words, it was found that males achieved higher than females in French vocabulary learning.

On the other hand, Burgoyne, Kelly, Whiteley and Spooner (2009) found a non-significant result of the gender effect on foreign language vocabulary learning in primary school level. Forty six students learning English as a foreign language had vocabulary tests and females' and males' vocabulary achievement scores were similar. Likewise, Grace (2000) concluded in his study that there was not any difference between males and females in French vocabulary learning. Due to all these various findings, the topic of gender effect on foreign language learning has not got a precise result, thus it is seen inconclusive (Ellis, 1994).

2.7.1.2 Games as an educational tool in FL teaching in Turkey

Besides the world, the effectiveness of educational games in foreign language education was investigated and proved in the majority of the investigations conducted qualitatively, both qualitatively, quantitatively and purely quantitatively at different grades and school levels in Turkey (Atay, 2007; Cimcim, 2008; Dervişoğulları, 2008; İnan, 2006; Kaya, 2007; Kılınç, 2005;

Özaslan, 2006; Susüzer, 2006; Şenergüç, 2007; Şenol, 2007; Tavil & İşisağ, 2009; Yıldız, 2001).

Turkish qualitative studies about games were conducted in various school levels. At the onset, adult students' and their teachers' opinions, perspectives about the contribution of games to vocabulary learning of English as a foreign language were investigated by means of questionnaires and interviews. It was found that 72 % of the teachers thought that language games were funny, functional and appropriate class activities so they frequently used them. 60 % of them agreed that vocabulary games worked on adult learners successfully and enhanced their students' concentration, motivation and involvement. Student questionnaires revealed that 79 % of them preferred fun activities in class while 35% found games childish. 63 % of the students stated that games help them remember vocabulary easily. In addition, interviews supported that adult students and teachers thought that language games were functional, appropriate and enjoyable activities for the classroom use (Şenergüç, 2007).

In parallel with the stated results above, fourth-grade private primary school students thought the same way with the adult students about educational games. Sixty five students were surveyed by questionnaires and the overall results showed that most of the students' attitude was positive in that 81% of the students liked language games and 96 % of the students thought that learning with games was stress-free, easy, fun and long lasting (Yıldız, 2001). In addition, a private university's students supported games by stating that learning a foreign language

vocabulary was normally hard but with games learning Turkish vocabulary as a

foreign language became motivating, funny and easy (Dervişoğulları, 2008).

Moreover, in the study the effectiveness of educational games on vocabulary

learning of Turkish as a foreign language for adults was quantitatively tested too.

Having different nationalities, thirty two adults aged between 21- 47 were

randomly selected from a private university. Two groups each of which had

sixteen participants were formed. The experimental group actively learned the

target vocabulary items with ten games in sixty hours during a month while the

control group received the vocabulary items without games. The groups were pre-

tested and post-tested with Turkish achievement test. The post-test resulted that

the group which learned with games achieved meaningfully better than the group

which learned without games in learning Turkish as a foreign language. Thus, the

quantitative results supported the qualitative research done with observations,

interviews (Dervişoğulları, 2008).

Also, secondary school students expressed their positive ideas about games

according to a qualitative study (İnan, 2006) done via questionnaires and

observation to collect more information about the usage of music, game and

drama activities in classrooms. Questionnaires were given to sixth-grade, seven

hundred fifty students from sixteen state secondary schools. The results showed

that students who learned English vocabulary by means of music, games and

drama enjoyed more, participated more eagerly and gained more words than the

other students who did not have these edutainment activities in the English

classes. These qualitative results were confirmed by the study's quantitative part. In the quantitative part, the effectiveness of games, music and drama as edutainment activities on vocabulary learning of sixth grade-state secondary school students was explored. Ninety three students were included and divided as the experimental group and the control group. The experimental group was taught English vocabulary by means of musical activities, games and drama in four weeks while the control group was taught the same vocabulary by means of repetition drills and Turkish translations. The t-test results revealed that the group learning English vocabulary with music, game and drama activities learned more vocabulary than the group learning the same vocabulary with repetition and translation (İnan, 2006).

The contribution of the educational games to foreign language vocabulary learning was also demonstrated by purely quantitative studies at various school levels. In the high school level, a pre-test post-test control group designed experimental study (Susüzer, 2006) was done to search whether educational games had an effect on academic achievement in French as a foreign language for state high school students of tenth grade. The total thirty two students were divided into an experimental group and a control group. The vocabulary of weather, numbers, occupations and prepositions were taught to the experimental group with educational games and to the control group with the traditional method which was not specified in the study. The post-test results of the two groups were compared by independent samples t-test. The group which learned French

vocabulary with educational games achieved significantly higher in the test than the control group which learned the same French vocabulary with the traditional method.

Besides the vocabulary games' effectiveness on foreign language vocabulary learning, their effectiveness on vocabulary and reading comprehension was demonstrated in high school level (Atay, 2007) and in secondary school level (Özaslan, 2006) in the randomized pre-test, post-test control group designed studies. Both studies revealed vocabulary games significantly affected the vocabulary and reading comprehension levels of high school and secondary school students. In the study of Atay (2007) the aim was to investigate the effect of vocabulary games on vocabulary and reading comprehension of English as a foreign language of state Anatolian high school-students of ninth-grade for eight weeks. The same pre-test and post- test which had twenty seven questions were implemented to both experimental and control group. The experimental group having fifteen students received English vocabulary by means of vocabulary games and the control group having fifteen students did not receive vocabulary games. The results were compared and it was found that the group which learned English via vocabulary games achieved more in vocabulary and reading comprehension than the group which did not learn English via vocabulary games. In the other study (Özaslan, 2006) the aim was to find out whether or not the vocabulary games influenced the reading comprehension level of state secondary school students of seventh grade. There were twenty four students in total, twelve

students in the experimental group, and twelve students in the control group. The pre-test, post-test instrument was the reading comprehension test that was developed by the researcher and it had fifty two questions. The experimental group received vocabulary games such as Taboo and vocabulary derivation games while the control group did not receive any vocabulary games. The treatment was done six hours a week in a spring term for eight weeks. The post-test indicated that the experimental group got better scores in reading comprehension test then the control group. It was concluded that vocabulary games significantly influenced the vocabulary and reading comprehension levesl of secondary school students.

Another supporting secondary school level, purely quantitative study (Kılınç, 2005) about vocabulary games was conducted with sixth-grade students aged 11-12 to test whether games were effective in English vocabulary teaching for sixth graders in a state secondary school. There were a control group including eighteen boys and fifteen girls and an experimental group including fourteen boys and nineteen girls. In total thirty three students in each group studied English four hours a week. The experimental group had English lessons with vocabulary games while the control group studied English without games. The two groups were compared with independent measures t-test at the beginning and at the end of a semester. Pre-test results showed that the two groups were equal and the post-test results revealed that the experimental group which received games in learning English vocabulary achieved higher than the control group which did not receive

games in learning English vocabulary on vocabulary test. This difference was significant, in other words, vocabulary games were effective on foreign language vocabulary learning as it was supported by a similar study (Şenol, 2007) conducted with other sixth-grade state secondary school students. They were tested in a pre-test, post-test control group designed- study to investigate whether teaching vocabulary through games increase learning and remembering the target foreign language vocabulary. A state school was selected and two groups of twenty students were formed and all the students had the same elementary English level. During a term, four hours a week the experimental group was taught forty selected vocabulary with games while the control group was taught the same vocabulary with the traditional method. However, the study did not mention any specific method as the traditional method. The forty multiple choice questioned- pre-test and the post-test were conducted and the groups were compared by independent samples t-test. In the pre-test there were no significant difference between the experimental and the control group, which showed that the groups were equal in terms of English vocabulary level at the beginning. The post-test results indicated that the experimental group learned and recalled significantly more words with games than the control group which did not use games in learning vocabulary.

In the primary school level, the contribution of games in English as a foreign language achievement was also confirmed (Kaya, 2007; Cimcim, 2008). In both studies designed with a pre-test- post-test control group, the effectiveness

of games on English achievement of fifth grade students in a state primary school was revealed. In the study of Kaya (2007), there were sixty students in groups in total. The teacher taught EFL topics of imperatives, directions and shopping via games while he taught the same to the control group via grammar-translation method. T-test results indicated that the group using games had higher scores than the group using grammar translation method in learning English. This difference was significant. Moreover, the groups were compared in terms of gender and no significant result was found between female and male students. After a year later, in the study of Cimcim (2008), an experimental and a control group each of which had forty students were taught by communicative approach. The experimental group learned the vocabulary of body parts with games while the control group learned without games. The total eighty students were pre-tested, the treatment was conducted and the post-tests were given. Post t-test resulted that the primary school fifth -grade experimental group that received games scored significantly higher than the fifth- grade control group that did not receive games technique in learning English vocabulary.

Lastly, in the early childhood level, an investigation (Tavil & İşisağ, 2009) was conducted about foreign language vocabulary learning of six-year olds and the results favored the effectiveness of games. In detail, games and songs were compared in the study to find the effective technique in foreign language vocabulary learning for six year-old preschool students by using a pre-test, post-test experimental study design. Forty six students were divided randomly into an

experimental group that received English vocabulary of colours and occupations with games and a control group that received the same English vocabulary with songs. The experiment lasted twenty days. Since children did not know how to read and write, pre-test and post-test were done in the form of 'Point to ...' test. The results were given only in descriptive statistics such as; in the experimental group 20 out of 23 children and in the comparison group 12 out of 23 children were successful in pointing the right vocabulary items. Therefore, it was concluded that games were more effective than songs in EFL vocabulary learning for six year-olds.

On the other hand, when the gender effect on foreign language learning in Turkey was reviewed in the literature, few research was found (Arslan, 2009; Behçetoğulları, 1993; Dursun, 2007) but all of them resulted in the superiority of females in learning a foreign language. In the study of Dursun (2007) gender effect in university students' foreign language learning was investigated. The results gathered from 120 students showed that females outperformed the males in foreign language scores. The findings of another study (Arslan, 2009) done with 257 students in a university's language preparatory classes supported the previous result in that a gender effect was founded on learning a foreign language in favor of females after comparing males' and females' language achievement scores. Despite all, the gender effect on foreign language learning is a controversial issue and it is far from to reach a definite and indisputable result as Ellis (1994) mentioned.

2.8 Summary and Conclusion

Like the first language learning, additional/ foreign language learning in early childhood is very important because there is a sensitive period until puberty which is until approximately the age of twelve to learn. If a child learns a foreign language as a very young learner until puberty, s/he is able to reach the complete mastery of that language like its native speakers (Hakuta, Bialystok & Wiley, 2003; Hyltenstam & Abrahamsson, 2001; Johnson & Newport, 1989; Lenneberg, 1967; Flege, Yeni-Komshian & Liu, 1999; Krashen, Long & Scarcella, 1979; Stevens, 1999) especially mastery in native-like pronunciation (Oyama, 1976) and in full understanding of grammaticality judgement (Johnson & Newport, 1989).

In Turkey, early childhood education initially started in 13th century but only six-year-olds were going to preschool. In 2009, early childhood education became compulsory for five-year-olds in most parts of Turkey and in four years, it is planned to be compulsory for all five year-old children in Turkey (MONE Early Childhood Education General Directorate, 2009). On the other hand, foreign language education started in early childhood programs in 2000 in Turkey for only five and six year-old children. The purpose of foreign language education in early childhood education programs was to make children realize the existence of other languages and learning a foreign language is fun (Ministry of National Education, 2000).

In this study, firstly the effect of vocabulary games on English learning of four- year-old children in early childhood education is investigated. Thus,

vocabulary and language development in first and foreign language gain

importance. As in the first language development, in the foreign language

development, there is a silent period at the very beginning. Then, learners try to

imitate and repeat sounds, use gestures without speaking the target language.

Afterwards, they start to communicate with one or two words, and when the

foreign language is practised enough, learners begin to use it productively and

creatively (Ellis, 1994; Fromkin, Rodman & Hyams, 2002; Gonzalez, Yawkey&

Minaya-Rowe, 2006; Gordon, 2007; Hong, 2008; McLaughlin, Blanchard &

Osanai, 1995; Saville-Troike, 1987). Similarly, in vocabulary development firstly

learners realize the foreign language's vocabularies and relate them with their

previous knowledge, then learners get full comprehension of the vocabularies of

the foreign language and start to use them in different contexts. When the

internalization is completed, the foreign language's vocabularies are produced and

used creatively (Belisle, 1998; Gass, 1988; Paribakht & Wesche, 1996).

Learning a foreign language and vocabulary in early childhood requires

age-appropriate teaching method and Total Physical Response foreign language

teaching method method is advised by MONE for very young children (Ministry

of National Education, 2000). Consequently, TPR which was used in the current

study has been developed by James J. Asher. Its main idea was inspired from the

first language learning in which mothers encourage babies to respond by giving

commands so it is based on right hemispheric learning that unites action and

language. The teacher gives directions or commands in foreign language, models

the performance himself alone or with a group of student physically for several times. Upon comprehending, students act and respond physically in groups or individually according to these commands. Due to this body, movement and language combination, TPR learning is quick, easy, stress-free and long-lasting. The internalization of the target language is important so listening and comprehension precede the production. Singing, playing games, directed drawing, pantomime, reading stories can be used as TPR activities in a foreign language classroom. Moreover, as a technique educational games were chosen to teach English vocabulary to very young learners.

When the literature is reviewed, it is seen that the studies conducted all over the world about educational games in foreign language field are both qualitative and quantitative. Both significant (Townsend, 2009) and nonsignificant (Anderson, 1971) study results can be found in terms of the effectiveness of games in foreign language learning and teaching in the world literature.

The studies conducted in Turkey about educational games in foreign language field have also qualitative and quantitative research. However, some of the qualitative studies are superficial while some of the quantitative studies lack specific, important and necessary statistical analysis. Moreover, in most of the studies practical significance is not stated in addition to the statistical significance. In Turkey, the results of the many reviewed studies which tested the effectiveness of the educational games in foreign language on different ages (Cimcim, 2008; Dervişoğulları, 2008; Kaya, 2007; Kılınç, 2005; Şenol, 2007; Susüzer, 2006;

Tavil & İşisağ, 2009) found meaningful statistical significance in favour of the educational vocabulary games. To sum up, much of the literature above demonstrate that games are significant contributors in foreign language education. However, almost all of the studies focus on the primary school levels and upper grade levels and even adults rather than early childhood education level. Thus, focusing on the early childhood education, the current study filled the gap in the literature and made contributions in foreign language learning.

Secondly in this study, the gender effect on EFL vocabulary performance scores in the experimental group which received picture vocabulary games and in the control group which did not receive picture vocabulary games in learning English vocabulary was aimed to be investigated. In the literature review about gender effect in learning foreign language, the majority of the studies (Burstall, 1975; Carroll, 1975; Lewis & Massud, 1975; Loulidi, 1989; Olszewski-Kubilius & Turner, 2002; Nyikos, 1990; Politzer, 1983; Swiatek & Lupkowski-Shoplik, 2000; Wilson, 1993) indicated the superiority of the females. However, a study (Cross, 1983) resulted the males' superiority while some studies (Burgoyne, Kelly, Whiteley and Spooner, 2009; Grace, 2000) found a non-significant difference between females and males in learning foreign language learning. Owing to the fact that there are various results, the gender effect on foreign language learning is inconclusive (Ellis, 1994).

Lastly as the theoretical background, various answers were given to the question of how language develops in humans but there are mainly three

perspectives as language development theories. The behaviourist perspective claims that language is not an innate ability, but it is gained from the environment. The innatist perspective claims that language is innate and genetically predetermined in the brain as it is characteristic of all the human species. The interactionist perspective claims that language has both internal, innative and external, environmental properties. This view unites the two extreme theoretical points which are behaviourist and innatist perspectives. Vygotsky is a social interactionist who claims that the language development is associated with the social interactions as well as the intellectual factors (Vygotsky, 1962), and this idea constitutes the theoretical backround of the current study.

CHAPTER III

METHOD

The current study was aimed to examine the effectiveness of picture vocabulary games as a technique on English as a Foreign Language (EFL) vocabulary performance scores of four year-old children in an early childhood program. Also, the effect of gender was investigated on EFL vocabulary performance scores in the experimental group which received picture vocabulary games in learning English vocabulary and in the control group which did not receive picture vocabulary games in learning English vocabulary.

In this chapter, overall design of the study, population and sample, data collection instrument, and the data collection procedure are presented. Also details of the pilot study are clarified and lastly threats to internal validity are discussed.

3.1 Design of the Study

In this study, firstly the effectiveness of picture vocabulary games was investigated. English vocabulary items were taught to the experimental group by the Total Physical Response (TPR) method including the game technique while the control group continued to be taught in the absence of these games with the same TPR method. In other words, TPR was used for both experimental and control group instruction while the difference was the picture vocabulary games

technique. Then two groups were compared by using t-test for independent measures.

Also, whether or not there is a gender effect on English vocabulary performance in the experimental group which received picture vocabulary games in learning English vocabulary was examined and also the gender effect in the control group which did not receive picture vocabulary games in learning English vocabulary was investigated by comparing males' and females' English vocabulary performance.

For all these reasons, this experimental study fits the quantitative study design because quantitative studies include treatment when an effect of an independent variable on dependent variables is investigated, and they mostly include manipulation of subjects such as experimental and control groups. Moreover, data collection occurs at the end of the study, in other words there is not an ongoing data collection process, and hypotheses are tested by statistics (Frankel & Wallen, 2005). Consequently, it had a quantitative and experimental design. More specifically, this study had the randomized pre-test- post-test control group design.

3.2 Research Questions

The purpose of the study was to investigate the effect of picture vocabulary games on English vocabulary performance of four-year-old preschool

children and examine the effect of gender on English vocabulary learning in the experimental and the control group by means of the following research questions:

1. Is there a significant difference in the mean English as a Foreign Language (EFL) vocabulary performance scores between the experimental group which receives picture vocabulary games and the control group which does not receive picture vocabulary games in English vocabulary learning for four-year-olds in an early childhood education program ?

2. Is there a significant effect of gender on EFL vocabulary learning for four-year-olds in an early childhood education program ?

   a) Is there a significant effect of gender on EFL vocabulary performance scores in the experimental group which receives picture vocabulary games in learning English vocabulary ?

   b) Is there a significant effect of gender on EFL vocabulary performance scores in the control group which does not receive picture vocabulary games in learning English vocabulary ?

According to research questions, there are two null hypothesis of this study:

1. There is no difference in the mean EFL vocabulary performance scores between the experimental group which receives picture vocabulary games and the control group which does not receive picture vocabulary games in

English vocabulary learning for four-year-olds in the early childhood education program.

2. There is not a significant effect of gender on EFL vocabulary learning in the experimental group which receives picture vocabulary games and in the control group which does not receive picture vocabulary games for four-year-olds in an early childhood education program.

3.3 Population and sample

The target population the researcher would like to generalize the findings of this study ideally consisted of all the four year-old children attending private preschools in Ankara. The accessible population which the researcher could generalize realistically was all the four year-old children who were attending private preschools in Yenimahalle. The sample was all the four year-old children attending the main-study preschool in Ümitköy selected by convenience non-random sampling.

In the current study's sampling, there was no random selection from many schools' students due to the absence of parents' and schools' allowance. Thus, a private preschool was chosen by the convenience non-random sampling. However, two separate groups, an experimental group and a control group, were formed with randomization of subjects to groups. The randomization is so important that Frankel and Wallen (2005) state "Randomization is a crucial

ingredient in the best kinds of experiments" (p.13). Since every single subject joining in the experiment possesses equal and independent chance of involving in the experimental or control group of the study.

The sampling preschool was founded in 2002 and it had 122 students, 15 teachers. It was a detached, two storey, 260 m² building with a spacious garden for children to play. The school had an art studio, a music and drama room, a computer center, a library, a ballet and gymnastics room. It served to children who were four, five and six years old. The school started at 09:00 in the morning and ended 17:00 in the evening. All age groups had two thirty-minute-English courses twice a week.

In the preschool there were three classes of four-year-old children all of which were taken as participants of the current study. All the participants were four years old and their mother tongues were Turkish. English was a foreign language for them. They were living with their parents. Female participants were 17 and the male participants were 16. Thus, the total number of the participants was 33. Consequently, 17 participants; 9 females and 8 males were randomly assigned to the experimental group while 16 participants; 8 females and 8 males were randomly assigned to the control group.

3.4 Data Collection Instrument

The instrument was the English as a foreign language (EFL) Vocabulary Performance Checklist which was prepared in accordance with the Total Physical

Response (TPR) lessons' content by the researcher and the experts as teachers. English vocabulary domains and items of the checklist were chosen by eliminating from a variety of topics and vocabularies according to difficulty level, age level and lesson content with the help of experts as teachers and researchers from Foreign Language Education field. Specifically, 24 vocabulary items were selected from two domains as animals and food and 24-item EFL Vocabulary Performance Checklist was prepared. Burke (2005) states that checklists are easy and rapid to conduct and they function as assessment tools for learning. Moreover, they "focus on observable performances or criteria that are often more meaningful or authentic than paper and pencil tests" (p.149).

Before using a checklist in a study its validity and reliability analysis should be checked beforehand (Fraenkel & Wallen, 2005). Thus, for the validity of EFL Vocabulary Performance Checklist, two expert teachers from Foreign Language Education department of a state university in the capital city of Turkey were consulted about the content validity. In the light of their feedback and suggestions, the directions of the checklist for the implementation were written more clearly and in detail. Apart from this, the number of the items and the basic level of the English vocabulary items were adjusted and the checklist was approved as valid for the children of age four.

For reliability, Kuder-Richardson 21 (KR 21) is a mostly used internal consistency determiner and its "formula can be used only if it can be assumed that the items are of equal difficulty" (Fraenkel & Wallen, 2005, p.160). The items of

the instrument of this study were evaluated and found equal in difficulty by the experts. All of the items were basic level. A pilot study was done with an experimental group of nine children who were four years old in a different preschool to check the reliability of the instrument of the study and KR 21 was calculated for the internal consistency. The reliability coefficient was found .86 which meant that the EFL Vocabulary Performance Checklist was highly reliable.

Frankel and Wallen (2005) state that on performance checklists, the observers do not make personal judgments and do not rate how well the student performs. Instead, the observer notes whether or not the subject performs correctly. Consequently, checklists which are prepared for the individual assessment should contain a list of related observable items (Burke, 2005). Thus, EFL Vocabulary Performance Checklist had twenty four items listing all the twenty four vocabulary with only one TPR command "Point to …". The reason why various other commands like "Step on …, Sit down on …, Show…, etc." were not included in the performance list was the importance of focusing on the picture vocabularies that were presented with the flashcards in the lessons. If a child did not remember the meaning of the command verb, for example the verb "step" in the sentence "Step on the banana!", he would not respond correctly with the target vocabulary, the banana. For this reason, all the command verbs were the same while the target vocabulary changed in the checklist items (Table 3.1).

Table 3.1

Sample Items of English as a Foreign Language Vocabulary Performance Checklist

Performance Indicators	Performed (1)	Not Performed (0)
1. The child pointed to the duck.		
2. The child pointed to the frog.		
3. The child pointed to the butterfly.		
4. The child pointed to the deer.		

The implementation of the checklist instrument was done with picture cards. In the checklist, vocabulary items from two different domains as animals and food were selected from a flashcard set which referred to portable and generally half A4-sized picture cards which depicted the related vocabulary as a drawn or photographed picture as Harmer (2007) defined. Each domain of the vocabulary had twelve items. The words were picked up carefully by consulting the children's main English teacher and the foreign language experts. All of the vocabulary items were untaught before so they were new and unfamiliar to all children. The total of 24 items were presented in English lessons in a four-week period. English lessons were given twice a week and lasted approximately thirty minutes for four-year olds. In each lesson three vocabulary items were taught with picture cards using Total Physical Response (TPR) method to both groups. English vocabulary items were presented to the experimental group by the TPR method in the existence of the game technique while the control group was

presented the same vocabulary items in the absence of these games with the same TPR method. Pre-test and post-test were employed for data analysis.

The pre-tests and post-tests as EFLVocabulary Performance Checklist implementation were conducted with a single child in a separate room at a time to protect internal validity by hindering imitation and copying of other children and the researcher treated all the children in a standard way in the course of implementation. Firstly, a group of three picture vocabularies, in other words, three flashcards were arranged in a row on the floor randomly at a time to prevent sequence-memorizing. Then, the researcher said "Point to the …" in English language as a foreign language and waited for the child to understand the pronounced target vocabulary and respond physically by pointing the correct flashcard illustrating that vocabulary. The researcher waited for about ten seconds for a performance. When the child pointed to the correct vocabulary of picture card, the researcher put a check next to that item under the 'Performed' title on the checklist and the child gained 1 point. When the child did not respond correctly, the researcher put a check on 'Not Performed' and the child gained 0 point.

After the first command of "Point to ...", if the child did not give any response, the researcher commanded once more in Turkish, children's native language, except for the target vocabulary such as "Hangisi 'turtle' göster!" If the child responded correctly, the researcher put a check under "Performed". If the child responded incorrectly or gave no response again, s/he put a check on 'Not Performed' for that item. In other words, if a child performed correctly, he gained

1 point. If he did not perform or performed incorrectly, he gained 0 point for each item on the checklist (Table 3.2). In this way, the researcher kept on asking children to point to the target vocabularies until all the target vocabularies in the checklist were over. At the end, the sum of the correct answers was calculated as the total EFL vocabulary performance score of each child. The lowest score a child could gain was zero point and the highest score a child could gain was twenty four points in the EFL Vocabulary Performance Checklist.

Table 3.2

EFL Vocabulary Performance Checklist Implementation Procedure

| | Situations | | |
	Performed	Not Performed	No Response
Command in English "Point to the turtle!"	1 point	0 point	The child is asked again in Turkish
Command in Turkish except the target vocabulary "Hangisi 'turtle' göster!"	1 point	0 point	0 point

3.5 Pilot Study

The pilot preschool was in the same district with the main study- school. Both preschools had the same physical conditions and the same, middle socio-economic status. In the pilot preschool, there were ten children, eight males and two females. However, one of the female students was three and a half years old so she was excluded from the study. Consequently, the pilot study was done with an experimental group of nine children who were four years old.

The implementation started in the last two weeks of December in 2010 in a private preschool which was different from that of the main study. The vocabulary items from the domain of animals were taught by means of picture vocabulary games twice a week. After two weeks the researcher filled the EFL vocabulary performance checklist according to each child's performance as post-test scores.

Any necessary changes in the instrument were done according to the pilot study in that the level of the vocabularies were adjusted in the basic English level, the number of the vocabulary items and checklist items were set as 24. Moreover, the usage and the written directions of the checklist were established. In addition, the determination of the time amount allotted for the implementation was clarified according to the pilot study. Furthermore, the usage and the directions of the instrument was written in detail as shown in Table 3.2 above.

Finally, content validity and Kuder-Richardson 21 reliability analysis were done and the instrument was found to be valid and 86 % reliable.

3.6 Data Collection Procedure

As the first step, ethical permission from the Research Center for Applied Ethics of Middle East Technical University and the institutional permission from the preschool administartors were obtained in December 2010 for the allowance of the study. Then, approvals of parents' were taken by consent forms about the participation of their children in the current study. The school and the parents were informed about the purpose of the study and they were assured about the

confidentiality of the participants' names and personal information given.

Moreover, the rules of research ethics were obeyed in all stages of the data

collection and in the data analysis phases of the research. General data collection

procedure can be seen in Table 3.3.

Table 3.3

Data Collection Procedure as an Outline

Procedure	Description
Procedure 1	Four-year olds were randomly assigned to an experimental and a control group and they were pre-tested individually on the knowledge of simple and predetermined English vocabularies by using EFL Vocabulary Performance Checklist.
Procedure 2	Both groups were taught English vocabulary items with Total Physical Response teaching method. The experimental group received picture vocabulary games while the control group did not receive these games. Both groups were taught by the same teacher who was the researcher.
Procedure 3	Both groups were post-tested individually after four weeks with the same EFL Vocabulary Performance Checklist filled by the researcher for each child. The sum of correct responses were calculated as the scores of the children and the comparison of the groups started.

Table 3.3. continued...

Procedure 4   Comparisons were made between the post-tests of EFL

vocabulary performance to see whether or not there was a

difference between the experimental group which

received picture vocabulary games and the control group

which did not receive picture vocabulary games in learning

EFL vocabulary. Therefore, the results showed whether or not

the picture vocabulary games contributed to the amount of

English vocabulary learning. Further comparisons were made

to investigate the gender effect in learning English vocabulary

items with / without picture vocabulary games in the

experimental and in the control group.

The researcher who taught for four weeks for the implementation was not acquinted with the children before the study; however, she only participated in two lessons as a guest of their permanent English teacher just before the implementation.

The preschool had three classes of four-year old children. After the list of all children who were four years old were provided, children were randomly assigned to two groups as experimental and control groups. In January 2011, data collection was started with the implementation of the EFL Vocabulary

Performance Checklist to each child individually as the pre-test. Pre-test results revealed that none of the groups learned the target vocabulary items in English as a foreign language beforehand, in other words, the two groups were equal in the knowledge of the target English vocabularies before the study's implementation.

The implementation started and in a four-week period English lessons were presented in two days a week. In each lesson three vocabularies, in four weeks totally twenty four vocabularies were presented with flashcards, in other words with picture cards using Total Physical Response (TPR) method to both groups (Table 3.4).

Table 3.4

Vocabulary Items Taught to Both Experimental and Control Group in a Four-Week Period

	Vocabulary Items	
Week	Wednesday	Friday
1	duck, frog, butterfly	deer, turkey, fish
2	bear, turtle, pig	camel, squirrel, crocodile
3	banana, apple, cherry	carrot, pear, watermelon
4	mushroom, strawberry, orange	tomato, grape, corn

In the experimental group picture vocabulary games were used additionally while in the control group picture vocabulary games were not used in English lessons. An example to the picture vocabulary games used in the current study was Hear and Jump by Cratty (1971). In this game, the teacher formed two

teams in the class and laid two same picture sets separately. A set had three picture cards. At a time, one student from both teams came and stood in front of the class and the cards. The teacher called out a vocabulary in the target language and the student who jumped on the correct picture won a point for his team. After a set amount of time passed, the team with the most points won (See Appendix A for plans of the games).

In the control group the class began with a routine hello song. The teacher presented the vocabulary items one by one with flashcards. She mimed, acted first using the target vocabulary while children watched. Secondly, the teacher wanted one or two children to act, respond to commands next to her while others watched. After a while, she wanted all children to respond according to her commands uniting the vocabulary with the actions. For example, the teacher said "Touch the banana! Point to the apple!, Circle the pear! " etc. After arranging the flashcards in a row in front of the students, the teacher called each student next to the cards. She commanded the student to do an action with cards such as "Give me the tomato!, Step on the mushroom!, Sit down on the cat! " etc. As lessons progressed, volunteer students also gave commands to their peers as an individual or as a group. Towards the end of the lesson, all the vocabularies were repeated again by teacher's pointing the picture cards, and each English lesson ended with another routine goodbye song.

In the experimental group, the class began with a routine song again. The teacher did exactly the same presentation to the experimental group. The only

different thing was the teacher's presentation of picture vocabulary games in the experimental group toward the end of the lessons, and in the experimental group each English lesson ended with a routine song again as in the control group. In other words, the experimental group received the same classes with the control group except for an addition of picture vocabulary games (Table 3.5).

It is also important to note that the routine songs used in the lessons were not related to the teaching aims and they did not include any target vocabulary items that were chosen. They were hello and goodbye songs that were only used to help very young children to be informed about the beginnings and the endings of the lessons and feel secure.

Table 3.5

The Content of an English Lesson Taught by TPR Method to the Experimental and the Control Group

Experimental Group TPR Method	Control Group TPR Method
1. Routine Hello song	**1**. Routine Hello song
2.Three vocabulary items were presented with picture cards.	**2**. Three vocabulary items were presented with picture cards.
3.Commanding by using the target vocabularies first the teacher acted the commands such as"Jump to the banana! Point to the apple!".	**3**. Commanding by using the target vocabularies first the teacher acted the commands such as "Jump to the banana!,

Table 3.5 continued...

4. The teacher wanted one or two children to respond to commands next to her while others watched.	Point to the apple!".
5. The teacher wanted all children to act according to her commands such as "Touch the banana!, Point to the apple!".	**4.** The teacher wanted one or two children to respond to commands while others watched.
6. Flashcards were laid on the floor, each child was called,responded to the commands of the teacher such as "Step on the mushroom!, Sit down on the cat!"	**5.** The teacher wanted all children to act according to her commands such as "Touch the banana!, Point to the apple!".
7. Volunteer students gave commands to their peers as an individual or as a group.	**6.** Flashcards were laid on the floor, each child was called, responded to the commands of the teacher such as "Step on the mushroom!, Sit down on the cat!".
8. All vocabularies were repeated by teacher's pointing to the picture cards.	**7.** Volunteer students gave commands to their peers as an individual or as a group.
9. A picture vocabulary game was played in the class.	**8**. All vocabularies were repeated by teacher's pointing to the picture cards.
10. Routine Goodbye Song	**9.** Routine Goodbye Song

After the implementation, in other words, after four weeks the researcher collected the data by conducting the same performance checklist as a post-test

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with each individual child separately in a room again to protect internal validity by hindering imitation and copying of other children. Then, the data was analysed to see whether there was any contribution of the picture vocabulary games to English vocabulary learning. Furthermore, gender effect was investigated in the experimental group which learned English vocabularies with picture vocabulary games and in the control group which learned English vocabularies without picture vocabulary games.

3.7 Data Analysis

Initially internal validity threats were tried to be minimized by controlling them and the assumptions of the independent samples t-test were checked. Then, the children were pre-tested, and the pre-test scores of EFL Vocabulary Performance Checklist of the experimental and the control group were compared by using independent samples t-test to check the equality or alikeness of the groups in terms of the unfamiliarity to the determined target English language vocabulary items.

After the implementation of the English lessons to both groups twice a week during a four-week period, the EFL Vocabulary Performance Checklists were conducted individually as post-test. The sum of the correct responses of each child as EFL vocabulary performance scores were used in data analysis, in independent samples t-test. The experimental and the control groups' EFL vocabulary performance score means were compared by using PASW 18

(Predictive Analytics Software) program to see whether or not there was a meaningful mean score difference between the group which received picture vocabulary games and the group which did not receive picture vocabulary games in learning English vocabulary. Also, EFL vocabulary performance score means of females and males in the experimental and in the control group were separately compared via independent samples t-tests to see whether or not there was a gender effect in learning English vocabularies with/ without picture vocabulary games.

In general, as data analysis independent t-tests as parametric tests were conducted for both of the two research questions. However, the majority of the children's not knowing the predetermined checklist vocabulary items in English as a foreign language manipulated the curve of the distribution and caused a cumulation near to zero. Consequently, the normality assumptions of the independent samples t-test was not completely satisfied and non-parametric alternative of the independent samples t-test which was Mann Whitney U Test was conducted for all research questions. Finally, due to the fact that the results of the parametric and non-parametric tests resulted in the same significance, the findings of parametric independent samples t-tests were reported in the current study. Finally, during the data analysis the p-value was set at .05 and at the end effect size was calculated to determine the practical significance of the difference.

3.8 Internal Validity Threats

" When a study has internal validity, it means that any relationship observed between two or more variables should be unambiguous as to what it means rather than due to something else" (Frankel & Wallen, 2005, p.169). In other words, when internal validity threats of a study are controlled, it is understood that "observed differences on the dependent variable are directly related to the independent variable, and not due to some other unintended variable" (Frankel & Wallen, 2005, p.169).

3.8.1 Subject Characteristics, Maturation, Statistical Regression Threats

By doing randomization, the threats of subject characteristics, maturation, and statistical regression are eliminated (Frankel & Wallen, 2005). In the current study, these threats were controlled because randomization was used by choosing and assigning the four-year old children randomly from a list to the experimental and the control group.

3.8.2 Mortality Threat:

Subject loss is a threat which is difficult to control in majority of the studies (Frankel & Wallen, 2005). In the current study, there was not any subject loss during the study and there was not any missing data. Therefore, the mortality threat was controlled.

3.8.3 Location Threat

If the participants are under various conditions, the responses and inferences of the study are affected, and this causes the location threat (Fraenkel & Wallen, 2005). In this study, all the students in the experimental and the control group were instructed and tested in the same school and in the same class environment to control the location threat.

3.8.4 Instrumentation Threat

If the researcher scores the tests differently due to fatigue or rashness, or if s/he changes the instrument and its scoring, instrument decay occurs. Here, instrument decay was controlled by programming the data collection and scoring procedure beforehand to hinder the unequal scoring and changing.

Data collector characteristics threat was controlled by assigning the same data collector, the researcher, during the whole study. Hence, the age, gender, language and other characteristics of the data collector were the same for both experimental and control group with no difference in other words they were held constant.

Data collector and his bias may unconsciously deteriorate the results of the study. He may spend more time in one class to collect information, as an interviewer he may ask leading questions according to his bias (Fraenkel & Wallen, 2005). Data collector bias threat was controlled by treating the both groups in the same way, by not asking any other questions, standardizing all the practices and being neutral.

3.8.5 History Threat

If an unexpected event which affects the subjects' responses happens, history threat occurs. This threat may exist in most of the research designs and it is very hard to control (Fraenkel & Wallen, 2005). During this study, any unexpected or unusual event did not occur so the history threat was controlled.

3.8.6 Implementation Threat

If the experimental and the control group are instructed by different instructors or by the same person differently in an unintended way, the implementation threat occurs (Fraenkel & Wallen, 2005). To control this threat, the researcher, an English teacher, was assigned to both groups, so the same method was implemented in the same way except for the independent variable. In addition, the researcher was not favour of one method over the other. Also the characteristics, age, teaching ability did not vary due to the fact that the teacher of both groups was the same. Moreover, another English teacher observed the lessons of both control and experimental group to be sure that the researcher followed the planned content.

3.8.7 Testing Threat

Pre-test may lead to a threat if the students are aware what is being investigated and work hard individually to learn the things asked. There may be also practice effect in the post-test due to taking the test before as a pre-test (Fraenkel & Wallen, 2005). Therefore, enough time, a month, was allotted

between the pre-test and post-test. In the pre-test, no clues were given to children

and no right answers were given to them to control the testing threat.

3.8.8 Attitude of Subjects Threat

No special attention and special treatment were given to any subjects to

prevent Hawthorne effect and to control the attitude of subjects' threat.

CHAPTER IV

RESULTS

This chapter attempts to present the results of the data analyses in the light of the research questions of the study as the following:

1. Is there a significant difference in the mean English as a Foreign Language (EFL) vocabulary performance scores between the experimental group which receives picture vocabulary games and the control group which does not receive picture vocabulary games in English vocabulary learning for four-year-olds in an early childhood education program?

2. Is there a significant effect of gender on EFL vocabulary learning for four-year-olds in an early childhood education program?

   a) Is there a significant effect of gender on EFL vocabulary performance scores in the experimental group which receives picture vocabulary games in learning English vocabulary ?

   b) Is there a significant effect of gender on EFL vocabulary performance scores in the control group which does not receive picture vocabulary games in learning English vocabulary ?

The first section presents the results of the first research question. The pre-test, post-test mean comparison findings as descriptive statistics and inferential

statistics which were Independent Samples T-tests' results as parametric tests and the Mann Whitney U Tests' results as non-parametric tests were given.

The second section also presents the results of the second research question. The post-test English as a Foreign Language (EFL) vocabulary performance scores of female and male preschool children of four years old were compared in the experimental group and in the control group separately to find the gender effect on English vocabulary learning with/ without picture vocabulary games. Likewise, mean comparison findings as descriptive and inferential statistics which were Independent Samples T-tests' results as parametric tests and the Mann Whitney U Tests' results as non-parametric tests were displayed.

All analyses were done by using PASW 18 (Predictive Analytics SoftWare) program and the results chapter was ended with a brief summary.

4.1 Descriptive and Inferential Statistics Results of the First Research Question

This first section includes assumptions, parametric and non-parametric descriptive and inferential statistical results guided by the first research question.

4.1.1 Parametric Independent Samples T-tests

Initially the assumptions of the independent t-test which were the level of measurements, random sampling, independence of observation were checked and resulted in satisfaction. Then the normality checking and homogeneity of variances checking were completed.

In terms of normality checking, Kolmogorov-Smirnov and Shapiro-Wilk's values were .000 and .001, both of which were smaller than .05. In addition, histograms indicated that zero scores were very much in number so they manipulated the normality curve. The normality assumption was not seemed to be satisfied on the pre- t-test. This was an expected distribution because the majority of the children's unfamiliarity to the chosen vocabulary items shaped the curve of the distribution. Since, at the onset the unknown vocabulary items were chosen deliberately to teach. Consequently, the majority of the students' cumulating on the zero point in the distribution was normal. Moreover, the assumption of the homogeneity of variances was examined by checking Levene's Test value. Due to the fact that Levene's value was .038 which was smaller than .05, the homegeneity of variances assumption was not satisfied. Hence, the researcher consulted the results of 'Equal variances not assumed' line in this study (Table 4.2).

When the descriptive statistics of the pre-test was examined, it was seen that there were 17 participants in the experimental group (M= 3.88, SD= 1.39) and 16 participants in the control group (M= 1.38, SD= 2.09) when they were pre-tested with EFL Vocabulary Performance Checklist (Table 4.1).

Table 4. 1

Descriptive Statistics of Pre-test Scores for English Vocabulary

	Method	N	Mean	Std. Deviation	Std. Error Mean
preeflscore	game	17	3,88	5,732	1,390
	nogame	16	1,38	2,094	,523

4.1.1.1 Independent Samples T-test Analysis as a Pre-test

The independent measures t-test as a pre-test was done and the significant value was calculated as 0.107. Due to the fact that this value was not smaller than 0.05, it was concluded that there was not a statistically significant difference between the experimental group (M = 3.88, SD =5.73) and the control group (M = 1.38, 2.09) in the pre-test, t (31) = 1.68, p= .107 (two-tailed) in terms of the knowledge of English vocabularies in EFL Vocabulary Checklist (Table 4.2).

Table 4.2

Independent Samples T-test for English Vocabulary Pre-test Scores

		Levene's Test for Equality of Variances		t-test for Equality of Means					95% Confidence Interval of the Difference	
		F	Sig.	t	df	Sig. (2-tailed)	Mean Difference	Std. Error Difference	Lower	Upper
preeflscore	Equal variances assumed	4,686	,038	1,648	31	,109	2,507	1,522	-,596	5,610
	Equal variances not assumed			1,688	20	,107	2,507	1,486	-,587	5,602

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4.1.1.2 Independent Samples T-test Analysis as a Post-test

The assumptions of independent measures t-test as level of measurements, random sampling, and independence of observation were satisfied because the dependent variable of the study was continuous, students were randomly assigned to the groups and the instrument was implemented to the children individually to test each child's independent achievement. Thus, normality was checked for the two groups. Skewness and kurtosis values were between -2 and +2 so they were normal. However, Shapiro-Wilk and Kolmogorov-Smirnov's values were .035, .011 and .003, .056 one of which was greater than .05. In addition, circles in the Q-Q Plots were close to the line and they did not form clusters in the Detrended Normal Q-Q Plots, which were the signals of the normality. Moreover, the assumption of the homogeneity of variances was examined by checking Levene's Test value. Due to the fact that Levene's value was .463 which was greater than .05, the researcher consulted the results of 'Equal variances assumed' line (Table 4.4).

As descriptive statistics, Table 4.3 indicated that in the post- test there were 17 participants in the experimental group (M= 18.29, SD= 5.9) and 16 participants in the control group (M= 13.69, SD= 4.9) again. In other words, there was not any missing data in the post-test.

Table 4.3

Descriptive Statistics of Post-test Scores for English Vocabulary

	Method	N	Mean	Std. Deviation	Std. Error Mean
postteflscore	game	17	18,29	5,977	1,450
	nogame	16	13,69	4,922	1,231

When the results of 'Equal variances assumed' line were consulted, the significant value was 0.022 (Table 4.4). Due to the fact that this value is smaller than 0.05, it was concluded that there was a *significant difference* between the experimental group (M = 18.29, SD =5.97) and the control group (M = 13.69, 4.92) in the post-test, t (31) = 2.40, p= .022 (two-tailed).

Table 4.4

Independent Samples T-test for English Vocabulary Regarding Comparisons of the Experimental and the Conrol Groups' Post-test Scores

		Levene's Test for Equality of Variances		t-test for Equality of Means						95% Confidence Interval of the Difference	
		F	Sig.	t	df	Sig. (2-tailed)	Mean Difference	Std. Error Difference	Lower	Upper
postteflscore	Equal variances assumed	,552	,463	2,408	31	,022	4,607	1,913	,705	8,508
	Equal variances not assumed			2,423	30,5	,022	4,607	1,901	,726	8,487

When a significant difference is found, the effect size should be calculated to find the practical significance (Fraenkel & Wallen, 2005). Hence, in the current study the effect size, in other words eta squared, was calculated as $r^2 = 0.15$. According to Cohen (1988), if the effect size is bigger than 0.14, it is interpreted as large effect size (as cited in Pallant, 2007). Thus, as the practical significance, a *large level effect* was found in this study.

4.1.2 Non- Parametric Mann- Whitney U Tests

Due to the fact that the normality assumptions of the pre- t-test and the post- t-test were not satisfied completely, Mann-Whitney U Test which was a non- parametric alternative to t-test for independent samples was done. The two assumptions of the non-parametric Mann-Whitney U Test which were "random samples and independent observations" (Pallant, 2007, p. 211) were already satisfied, thus the analysis went on. Pallant (2007) stated that this test compared medians of the two groups rather than their means by changing the scores into ranks.

4.1.2.1 Mann-Whitney U Pre-Test

As the descriptive statistics, in Mann-Whitney U Pre-test the experimental group had the mean rank of 19, 65 while the control group had the mean rank of 14, 19 (Table 4.5).

Table 4.5

Mean Rank between Groups in Mann-Whitney U Pre-test

	Method	N	Mean Rank	Sum of Ranks
preflscore	game	17	19,65	334,00
	nogame	16	14,19	227,00
	Total	33		

When the experimental and the control groups were compared by the non-parametric alternative of the independent t-test, the results showed that the p-value, .094, was greater than .05. This meant that there was not a statistically significant difference in the EFL scores between the experimental group (Md= 2, n= 17) and the control group (Md= 1, n= 16), U= 91.00, z = -1.67, p= .09, r = -.29 in the non- parametric Mann-Whitney U Pre- Test (Table 4.6).

Table.4.6

Mann-Whitney U Test for English Vocabulary Pre-test Scores

	preeflscore
Mann-Whitney U	91,000
Wilcoxon W	227,000
Z	-1,675
Asymp.Sig. (2-tailed)	,094
Exact Sig. [2*(1-tailed Sig.)]	,110

The median values for each group were calculated to support the mean rank results. Table 4.7 showed that median score of the experimantal group (Md=

2) was higher than that of the control group (Md=1). However, it did not result in a significant difference between the groups in the non-parametric pre-test.

Table 4.7

Median Scores for Each Group in the Mann-Whitney U Pre-test

method	Preteflscore median
game	2,00
nogame	1,00
Total	1,00

4.1.2.2 Mann-Whitney U Post-Test

When the experimental and the control group were compared, the non-parametric post-test results indicated a significant difference between the experimental group which received games (Md= 20, n= 17) and the control group which did not receive games (Md= 13.50, n= 16) in English vocabulary learning, $U = 71$, $z = -2.35$, $p = .01$, $r = -.40$ (Table 4.8, 4.9 and 4.10).

Table 4.8

Mann-Whitney U Test for English Vocabulary Post-test Scores

	posteflscore
Mann-Whitney U	71,000
Wilcoxon W	207,000
Z	-2,351
Asymp.Sig. (2-tailed)	,019
Exact Sig. [2*(1-tailed) Sig.]	,019

Mann-Whitney U Post-test, the experimental group had the mean rank of 20, 82 while the control group had the mean rank of 12, 94 (Table 4.9). According to Pallant (2007), if a statistically significant result is found between the groups, the difference between the mean ranks indicates "the direction of the difference", in other words it indicates "which group is higher" (p.222). Here, the rank of the experimental group which learned English vocabulary items with games was higher than the rank of the control group which learned the English vocabulary items without games.

Table 4.9

Mean Rank between Groups in Mann-Whitney U Post-test

	method	N	Mean Rank	Sum of Ranks
postteflscore	game	17	20,82	354,00
	nogame	16	12,94	207,00
	Total	33		

Pallant (2007) stated that the median values for each group should be calculated and mentioned to support the mean rank results. Table 4.10 showed that median score of the experimantal group (Md= 20.0) was higher than that of the control group (Md= 13.5), and this supported the significant result in favor of the experimental group.

Table 4.10

Median Scores for Each Group in the Mann-Whitney U Post-test

	Postteflscore
method	median
game	20,00
nogame	13,50
Total	16,00

In conclusion, due to the fact that the non- parametric Mann-Whitney U Test as a post-test revealed a significant difference between the groups like the parametric T-test, the analysis of Independent Samples T-tests was taken into consideration and reported as the main result in this thesis.

4.2 Descriptive and Inferential Statistics Results of the Second Research Question

In this second section, the results of gender effect on EFL vocabulary learning with / without picture vocabulary games in the experimental and in the control group for four-year-olds in an early childhood education program were presented.

4.2.1 Results of Gender Effect on EFL Vocabulary Learning with Picture Vocabulary Games in the Experimental Group

To investigate the gender effect on EFL vocabulary performance scores in the experimental group which received picture vocabulary games in learning

English vocabulary, female and male children's post-test scores of EFL vocabulary performance checklist were compared by parametric Independent T-test and non-parametric Mann Whitney U Test and the findings were given after the assumptions and the descriptive results.

4.2.1.1 Parametric Independent Samples T-test Regarding Gender in the Experimental Group

At the onset, the assumptions of independent measures t-test which were the level of measurements, random sampling, and independence of observation were satisfied because the dependent variable of the study was continuous, students were randomly assigned to the group and the instrument was implemented to the children individually to test each child's independent achievement. Thus, normality was checked for the group. Skewness and kurtosis values were not between -2 and +2 so they were not normal. In addition, Shapiro-Wilk and Kolmogorov-Smirnov's values for females were .009, .007 and for males .288, .200. Only values of males were greater than .05 and normal. In addition, circles in the Q-Q Plots were close to the line and they did not form clusters in the Detrended Normal Q-Q Plots, which were the signals of the normality. However, the normality assumption was not completely satisfied. Moreover, the assumption of the homogeneity of variances was examined by checking Levene's Test value. Due to the fact that Levene's value was .264 which was greater than .05, the researcher consulted the results of 'Equal variances assumed' line for the t-test results (Table 4.12).

As descriptive statistics, Table 4.11 displayed that there were totally 17 children who were 9 females (M= 19.33, SD= 5.59) and 8 males (M= 17.13, SD= 6.55) in the experimental group which received picture vocabulary games in learning English as a foreign language vocabulary items.

Table 4.11

Descriptive Statistics of English Vocabulary Post-test Scores of the Experimental Group Regarding Gender

	Gender	N	Mean	Std. Deviation	Std. Error Mean
engscoresgames	female	9	19,33	5,590	1,863
	male	8	17,13	6,556	2,318

When the results of 'Equal variances assumed' line were followed, the significant value was .465 (Table 4.12). Due to the fact that this value is bigger than 0.05, it was concluded that there was not a significant difference between females (M= 19.33, SD= 5.59) and males (M= 17.13, SD= 6.55) in learning English vocabulary items according to the post-test results in the experimental group which learned English vocabulary items with picture vocabulary games, t (15) = .75, p= .46 (two-tailed).

Table 4.12

Independent Samples T-test Regarding Gender Comparison of Post-test Scores in

the Experimental Group

| | | Levene's Test for Equality of Variances | | t-test for Equality of Means | | | | | | |
| | | | | | | | | | 95% Confidence Interval of the Difference | |
		F	Sig.	t	df	Sig. (2-tailed)	Mean Difference	Std. Error Difference	Lower	Upper
engscores games	Equal variances assumed	l ,345	,264	,75	15	,465	2,208	2,945	-4,068	8,485
	Equal variances not assumed			,74	13,9	,470	2,208	2,974	-4,175	8,592

4.2.1.2 Non-Parametric Mann Whitney U Test Regarding Gender in the Experimental Group

The gender effect on English vocabulary performance upon learning

English vocabularies by means of picture vocabulary games in the experimental

group was attempted to be explored using independent samples t-test. Due to the

fact that the normality assumption of the t-test was not completely satisfied, the

non-parametric alternative Mann Whitney U test was conducted.

The Mann Whitney U Test's assumptions of random samples and

independent observations were satisfied. Thus, when it was conducted, the results

showed that there was not a significant difference between females (Md= 20 ,n= 9) and males (Md= 18 , n= 8) in the experimental group which received picture vocabulary games during English vocabulary learning, U= 31.50, z =-.437, p = .66, r = -.10 (Table 4.13 and 4.15).

Table 4.13

Mann-Whitney U Test Regarding Gender Comparison of Post-test Scores in the Experimental Group

	engscoresgames
Mann-Whitney U	31,500
Wilcoxon W	67,50
Z	-,437
Asymp.Sig. (2-tailed)	,662
Exact Sig. [2*(1-tailed) Sig.]	,673

Mean ranks shows "the direction of the difference" (Pallant, 2007, p. 222). Here the mean rank of the females, 9.50 was higher than the males' mean rank, 8.44 in the experimental group. However, this was not enough to result in a significant difference between males and females who learned English via picture vocabulary games (Table 4.14).

Table 4.14

Mean Rank in Mann-Whitney U Post-test Regarding Gender in the Experimental

Group

	gender	N	Mean Rank	Sum of Ranks
engscoresgames	female	9	9,50	85,00
	male	8	8,44	67,50
	Total	17		

Median values of each gender supported the mean rank values in the experimental group. Table 4.15 showed that median score of the females (Md= 20) was higher than that of the males (Md= 18) in the experimental group; however; this result was not enough to produce a significant difference between both genders' English vocabulary performance scores.

Table 4.15

Median Scores for Each Gender in the Mann-Whitney U Post-test in the

Experimental Group

	engscoresgames
gender	median
female	20,00
male	18,00
Total	20,00

To conclude, Mann Whitney U test was done as a non-parametric test after the parametric independent samples t-test due to the dissatisfaction of the normality tests. However, the results of both parametric and non-parametric tests revealed the same nonsignificant difference between females and males in learning English vocabulary with picture vocabulary games in the experimental group. Consequently, the results of the independent samples t-test as parametric test was taken into account and reported.

4.2.2 Results of Gender Effect on EFL Vocabulary Learning without Picture Vocabulary Games in the Control Group

The assumptions, descriptive findings are given and the results of the parametric and non-parametric comparison tests which were conducted to investigate whether there was a significant effect of gender on EFL vocabulary performance scores in the control group which did not receive picture vocabulary games in learning English vocabulary were presented.

4.2.2.1 Parametric Independent Samples T-test Regarding Gender in the Control Group

Firstly, level of measurements, random sampling, and independence of observation assumptions of the independent t-test were satisfied and normality was checked. Skewness and kurtosis values were between -2 and +2, thus they seemed normal. However, Shapiro-Wilk and Kolmogorov-Smirnov's values were not normal for the males in the control group. The values for females were .714

and .200 while for males .015 and .027 respectively. Hence, the normality assumption was not fully satisfied. In addition, the homogeneity of variances assumption was checked by Levene's Test. Due to the fact that Levene's value was .094 which was greater than .05, the researcher consulted the results of 'Equal variances assumed' line for the t-test results (Table 4.17).

Descriptive findings (Table 4.16) revealed that there were 8 females (M= 13.25, SD= 3.99) and 8 males (M= 14.13, SD= 5.96), in total 16 four year-old children in the control group which did not receive picture vocabulary games in learning English vocabulary items.

Table 4.16

Descriptive Statistics of English Vocabulary Post-test Scores of the Control Group Regarding Gender

	Gender	N	Mean	Std. Deviation	Std. Error Mean
engscoresnogames	female	8	13,25	3,991	1,411
	male	8	14,13	5,963	2,108

The results on the 'Equal variances assumed' line showed that both genders' EFL vocabulary performance scores mean comparison significant value was .735 (Table 4. 17) which was bigger than .05 value. Thus, it was concluded that there was not a significant difference between females (M= 13.25, SD= 3.99) and males (M= 14.13, SD= 5.96) in learning English vocabulary items in the

control group which did not receive picture vocabulary games while learning

English vocabulary items, t (14) = -.34, p= .73 (two-tailed).

Table 4.17

Independent Samples T-test Regarding Gender Comparison of Post-test Scores in

the Control Group

		Levene's Test for Equality of Variances		t-test for Equality of Means						
									95% Confidence Interval of the Difference	
		F	Sig.	t	df	Sig. (2-tailed)	Mean Difference	Std. Error Difference	Lower	Upper
engscores nogames	Equal variances assumed	3,2	,094	-,345	14	,735	-,875	2,537	-6,316	4,566
	Equal variances not assumed			-,345	12,224	,736	-,875	2,537	-6,391	4,641

4.2.2.2 Non-Parametric Mann Whitney U Test Regarding Gender in

the Control Group

In exploring the gender effect on EFL vocabulary performance scores in

the control group which did not receive picture vocabulary games in learning

English vocabulary, independent samples t-test analysis was used. However,

normality assumption of the independent t-test was not completely satisfied.

Consequently, non-parametric alternative Mann Whitney U Test was conducted after its assumptions of random samples and independent observations were satisfied.

The results indicated that there was not a significant difference between females (Md= 13.5, n= 8) and males (Md= 11.5, n= 8) in the control group which did not receive picture vocabulary games during English vocabulary learning, U= 29.50, z = -.26, p = .79, r = -.06 (Table 4.18 and 4.20).

Table 4.18

Mann-Whitney U Test Regarding Gender Comparison of Post-test Scores in the Control Group

	engscoresnogames
Mann-Whitney U	29,500
Wilcoxon W	65,500
Z	-,267
Asymp.Sig. (2-tailed)	,790
Exact Sig. [2*(1-tailed) Sig.]	,798

The direction of the difference which mean ranks indicated seemed to favor the males slightly more than the females in the control group (Table 4.19); however, this difference was not big enough to result in a significant result.

Table 4.19

Mean Rank in Mann-Whitney U Post-test Regarding Gender in the Control Group

	gender	N	Mean Rank	Sum of Ranks
engscoresnogames	female	8	8,19	65,50
	male	8	8,81	70,50
	Total	16		

On the other hand, Table 4.20 displayed that median values of each gender did not support the mean rank values in the control group. Median values of males (Md= 11.50) was lower than that of the females (Md= 13.50) in the control group. However, this difference was not significant.

Table 4.20

Median Scores for Each Gender in the Mann-Whitney U Post-test in the Control Group

	engscoresnogames
gender	median
female	13,50
male	11,50
Total	13,50

In conclusion, parametric Independent Samples T-test was done firstly to investigate the gender effect on English vocabulary learning without picture vocabulary games in the control group but the normality assumption was not

satisfied. Thus, non-parametric alternative Mann Whitney U Test was conducted after satisfying its assumptions. Both parametric and non-parametric tests resulted that there was no gender effect in the control group which did not receive picture vocabulary games in learning English vocabulary items. Hence, parametric Indepent Samples T-test results were taken into account and reported for the control group in the current study.

4.3 Summary

In the first section, a significant difference was investigated in the mean English as a Foreign Language (EFL) vocabulary performance scores between the experimental group which received picture vocabulary games and the control group which did not receive picture vocabulary games in English vocabulary learning for four-year-olds in an early childhood education program. As results, the assumptions of t-test and descriptive statistics and Independent Samples T-test findings were presented. Pre-test resulted in a non-significant difference between the groups' English vocabulary achievement, which implied that both groups were equal before the implementation. After the implementation, post-test was done. Post-test results revealed a *significant difference* in English vocabulary achievement between the experimental group (M = 18. 29, SD =5. 97) and the control group (M = 13.69, 4.92), t (31) = 2.40, p = .02 (two-tailed). Furthermore, the size of the difference was calculated as eta squared and it was found to be *large level effect size*.

Due to the fact that the normality assumptions of the pre-test and the post-test were not satisfied completely, Mann Whitney U Tests as non-parametric alternative of the t-test were done for the first research question. Since, the alternative non-parametric test results were consistent with the parametric t-test results, the analysis of Independent Samples T-tests was taken into consideration and reported as the main result in this thesis.

In the second section, firstly the effect of gender on EFL vocabulary performance post-test scores in the experimental group which received picture vocabulary games in learning English vocabulary was investigated. The assumptions of t-test, descriptive statistics and Independent Samples T-test findings were presented. Likewise, normality assumption of the t-test was not satisfied completely and non-parametric Mann Whitney U Test was conducted. Owing to the consistency of the two tests' findings, parametric Independent Samples T-test results was preferred and reported in this study. Thus, the results displayed a non-significant difference in English achievement between females (M= 19.33, SD= 5.59) and males (M= 17.13, SD= 6.55) in the experimental group, t (15) = .75, p= .46 (two-tailed). In other words, there was not any significant gender effect on EFL vocabulary performance scores of children who learned English vocabulary items via picture vocabulary games.

Secondly, the effect of gender on EFL vocabulary performance post-test scores in the control group which did not receive picture vocabulary games in learning English vocabulary was investigated. The assumptions of t-test,

descriptive statistics and Independent Samples T-test findings were given. Similarly, normality assumption of the t-test was not satisfied and non-parametric alternative which was Mann Whitney U Test was done. The two tests' results were the same, therefore parametric Independent Samples T-test results were reported. Hence, the results indicated a non-significant difference in English achievement between females (M= 13.25, SD= 3.99) and males (M= 14.13, SD= 5.96) in the control group, t (14) = -.34 , p= .73 (two-tailed). In other words, there was not any significant gender effect on EFL vocabulary performance scores of children who learned English vocabulary items without picture vocabulary games.

CHAPTER V

DISCUSSION, IMPLICATIONS AND RECOMMENDATIONS

In this final chapter, the current study is summarized briefly including the research questions, research design and the results. Then, the results are discussed; implications of the study for policy and practice are presented. Finally, some suggestions for further research are given.

5.1 Summary of the Study

Meeting an additional language at early ages is very important and its noteworthiness was realized long ago in the world. In Turkey, however, English as a foreign language has been officially put into practice in early childhood programs for very young children only since 2000 (Ministry of National Education, 2000). Consequently, investigating the language teaching methods and techniques that are appropriate and available for preschoolers has gained practical significance. Focusing on the vocabulary aspect of the foreign language teaching, this study aimed to fill a gap by investigating the effectiveness of the games as a technique on the preschool-level English vocabulary learning of four year-olds. Also, whether or not there was a gender effect on learning vocabularies of English as a foreign language with picture vocabulary games in the experimental group and without picture vocabulary games in the control group was investigated.

According to the study's purposes, appropriate statistical research questions were set:

Question 1: Is there a significant difference in the mean EFL vocabulary performance scores between the experimental group which receives picture vocabulary games and the control group which does not receive picture vocabulary games in English vocabulary learning for four-year-olds in an early childhood education program?

Question 2: Is there a significant effect of gender on EFL vocabulary learning for four-year-olds in an early childhood education program?

a) Is there a significant effect of gender on EFL vocabulary performance scores in the experimental group which receives picture vocabulary games in learning English vocabulary ?

b) Is there a significant effect of gender on EFL vocabulary performance scores in the control group which does not receive picture vocabulary games in learning English vocabulary ?

In the current study, randomized pre-test, post-test control group design was adopted. The sample was 33 private preschool children who were four years old. There were 17 females and 16 males in total. Data collection instrument was the EFL Vocabulary Performance Checklist prepared in accordance with the TPR lessons' content by the researcher. It had 24 items including basic, elementary level vocabulary from two domains; animals and food. The results of the pilot

study and expert feedbacks revealed that the instrument was valid and 86 % reliable.

The sample was divided randomly into two groups both of which were pre-tested and no difference was detected between the groups in the pre-test. The implementation was done after controlling the internal validity threats. In each lesson three words were addressed; in a month totally twenty four words of vocabulary were addressed with picture cards using Total Physical Response to both groups. The experimental group received picture vocabulary games additionally while the control group lacked these picture vocabulary games. At the end, independent measures t-test was conducted. The results indicated a significant difference in the mean EFL vocabulary performance scores in favour of the experimental group rather than the control group. In other words, the results revealed that picture vocabulary games were significantly effective on learning vocabularies of English as a foreign language for four year olds attending to the private preschool. However, the normality assumptions of the t-tests had not been completely satisfied, therefore non-parametric Mann Whitney U Tests were done. The result was non-significant in the pre-test, and significant in the post-test. Due to the fact that the non-parametric outcomes were consistent with the parametric t-test outcomes, the parametric independent t-test results were taken into account and reported for the first research question of the current study.

For the second research question, to investigate the gender effect, EFL vocabulary performance post-test mean scores of females and males were

compared in the experimental group which received picture vocabulary games and in the control group which lacked the picture vocabulary games by means of Independent Samples T-test. Non- significant result was found for both groups, which meant there was not any statistically significant gender effect on EFL vocabulary performance scores in the experimental group which received picture vocabulary games and in the control group which did not receive picture vocabulary games in learning English vocabulary. Due to the dissatisfaction of the normality assumption at the beginning, non-parametric alternative, Mann Whitney U Test was conducted after the t-test. The results of the parametric and non-parametric tests were consistent, therefore parametric t-test findings were preffered and reported for the second research question of the current study.

5.2 Discussion

5.2.1 Vygotsky's Social- Cognitive Theory

Vygotsky (1978) stated that play activities produce Zone of Proximal Development and enhance children to their potential development levels by means of interaction with others. Classroom games as play activities, provide an experiential structure and an opportunity to act, perceive and response to learn (Fredericksen, 1999). In the current study, picture vocabulary games might create Zone of Proximal Development for children who were four years old and via social interactions in terms of competition and co-operation in the games they might reach their potential development in English vocabulary learning during

four weeks. Consequently, this might be a reason for the high achievement in learning English vocabulary items of the experimental group which received picture vocabulary games.

Also, learners could be guided helpers to their friends and other learners during collaborative and competitive foreign language interactions. They could be resource of information in the social context (Donato, 1994). Children observe their peers while playing the game. Thus, during the individual and group picture vocabulary games in the experimental group children might create mutual scaffolding or guided assistance unconsciously and their learning might increase. Hence, this might trigger the enhancement in the potential learning of the children and the significant result in the effect of picture vocabulary games on foreign language vocabulary learning.

5.2.2 Significant Effect of Picture Vocabulary Games on Learning Foreign Language Vocabulary for Four Year-olds

When the research question whether there is a significant difference in the mean EFL vocabulary performance scores between the experimental group and the control group was examined in the light of the data analysis, it resulted a significant difference in the mean EFL vocabulary performance scores between the experimental group and the control group, which meant that using games as a technique was significantly effective in teaching English vocabulary to four-year-old children attending to the private preschool.

The reasons why picture vocabulary games were effective in English vocabulary learning for four-year-olds might be language attitudes, IQ levels, interest levels or individual learning strategies of the students and it can be thought that these factors may affect the participants' learning and achievement scores (Taylor, Gregory, Nikolova, Ofelia & Roeper, 2004) and produce the significant difference in learning English vocabularies between the experimental and the control group in favour of the experimental group although investigating these factors are beyond the scope of the current study.

On the other hand, other strong reason why picture vocabulary games were effective in English vocabulary learning for four-year-olds might be related to the interconnection between the development level of the four-year old children and the nature of the games. For, playing is an indispensible part of children's development and it contributes to children's physical, emotional, social and cognitive development (Berk, 2006; Bredekamp & Copple, 1997; Essa, 2003; Ginsburg, 2007). According to Piaget (1964), children who are between the ages two and seven are in the pre-operational stage of cognitive development level. In this stage, children are very active mentally and physically. They love to play and while playing they discover and learn. Also, as children grow up, their cognition levels develop. Thus, their forms of play change accordingly. According to Parten (1932), roughly at around age two, children start with solitary play which includes playing individually and independently with toys. At around age three, they play with play materials in the existence of other children around but they do not play

together, which is called parallel play. At the ages of three and four, children start to play together in the associative play. Finally, as children mature socially and cognitively, they pass to co-operative play between the ages four and five. In these ages, group work and basic rules can be included in the play in the form of a game. Games and play are related with each other in that games are individual or group plays which include competition, acceptance of specific prescribed rules, collaboration and a limited time. Furthermore, the ability of playing games with rules as a group indicates the children's cognitive and social maturity level in that the four year- olds are mature enough to play individual or group games with basic rules that are designed according to their developmental level. Thus, playing is the nature of children and it reflects development so playing activities and games should be integrated into learning in early childhood education (Fromberg & Bergen, 2006; Johnson, Christie & Wardle, 2005; Parten, 1932; Pound, 2005).

In addition, National Association for the Education of Young Children (NAEYC) supports playing activities for very young children and suggested that it should be used as an instructional tool during the early years (Bredekamp & Copple, 1997). Also, constructivism supports playing because learning is an active and social process in which the child constructs his own understanding according to his experience. Hence, games and play activities give children an opportunity of active and social learning (Sluss, 2005). Similarly, social constructivism supports games, play activities by claiming that children learn in social interactions, especially with the help of an adult or a peer. Vygotsky (1978)

names this help as scaffolding. With scaffolding, the child learns and develops cognitively in the Zone of Proximal Development (ZPD) which is the distance between the actual developmental level and the potential developmental level. For example, a child who can ride a toy horse with scaffolding moves to a point where he can ride that toy without help, and this shows that the child moves forward through the potential zone and he learns. Vygotsky (1978) believes that ZPD emerges during the play activities which mean that as children are engaged in play activities, their learning and cognition develops, while Piaget (1962) believes that play follows development. However, both views unite on the idea that play activities and development are in interaction, and this indicates the importance of games and play activities in early childhood years (Reed, 2007; Wolfgang, Stannard & Jones, 2001).

Kamii and Lewis (1992) discuss the advantages of using educational games for academic purposes and explained that students are naturally motivated to work in games; they think and make up their own strategies to attain their goals, also students control and correct each other while playing games.

The review of the related literature also supports the advantage and the effectiveness of the educational games used as a learning tool in primary and secondary schools, in high schools and even in adult learning in the world and in Turkey (Ajibade & Ndububa, 2008; Atay, 2007; Cimcim, 2008; Cortez, 1974; Dervişoğulları, 2008; Dursun, 2007; İnan, 2006; Kaya, 2007; Kılınç, 2005; Ojeda, 2004; Özaslan, 2006; Shaw, 2009; Susüzer, 2006; Şenergüç, 2007; Şenol, 2007;

Thi Thanh Huyen & Thi Thu Nga, 2003; Townsend, 2009; Yıldız, 2001). Despite of the fact that very few research was conducted in early childhood education field about the educational games (Elvin, Maagero & Simonsen, 2007; Tavil & İşisağ, 2009), the promising results of them supported the findings of the current study in terms of the effectiveness of educational games. Elvin, Maagero and Simonsen (2007) studied with children between three and six years old qualitatively while Tavil and İşisağ (2009) studied with the six-year-old children quantitatively. However, both studies came into conclusion only with descriptions or the descriptive statistics.

Especially the study of Tavil and İşisağ (2009) did not have detailed inferential statistical calculations or results although it was stated it had a quantitative pre-test post-test design. In terms of their study's method, unlike the current study, singing was used as a foreign language teaching technique, English colors and occupations were taught by songs to one group and by games to another group. The aim was to compare the two teaching techniques in twenty days to six year-old students of a state preschool by using 'Point to... ' test. However, there should have been control groups for each teaching technique to make sure that the dependent variable findings were only resulted from the independent variable. In other words, control groups should have been included in the design of their study to understand that English achievement scores changed only due to the teaching technique. Moreover, it was mentioned that the assessment was done verbally by 'Point to...' test but there should have been a

written checklist or test which was controlled by a pilot study. Thus, the instrument lacked the validity and reliability results. Also, in the study of Tavil and İşisağ (2009) the results were given only in descriptive statistics in that in the experimental group 20 out of 23 children and in the comparison group 12 out of 23 children were successful in pointing the right vocabulary items. Therefore, it was concluded that games were more effective than songs in EFL vocabulary learning for six year-olds. However, at the end the results should have been reported by conducting an independent samples t-test to find whether the difference was significant or not between the two groups learning English vocabulary with songs/ games. The current study differed from the mentioned study mainly in terns of its design. This study investigated the effect of games technique while the study of Tavil and İşisağ (2009) compared the two language teaching techniques, games and songs. In addition, descriptive and inferential statistics results were calculated and reported in the current study.

5.2.3 Non-significant Gender Effect on Foreign Language Vocabulary Learning with and without Picture Vocabulary Games for Four Year-olds

When the question whether or not there was a significant effect of gender on EFL vocabulary performance scores in the experimental group which received picture vocabulary games in learning English vocabulary and in the control group which did not receive picture vocabulary games in learning English vocabulary was investigated, a non-significant effect of gender for both groups was found.

One of the reasons which leaded to the non-significant gender effect might be the close level of attention of the females and males (Taylor, Gregory, Nikolova, Ofelia & Roeper, 2004) on English vocabulary learning with picture vocabulary games in the experimental group and without picture vocabulary games in the control group. It was probable that males' and females' close levels of attention cause an approximate range of learning and achievement so the close level of attention might be one of the reasons for the non-significant result.

Also, self-motivation might be the another reason that resulted the non-significant gender effect (Gardner & Macintyre, 1991; Taylor, Gregory, Nikolova, Ofelia & Roeper, 2004) in learning English vocabulary items. Close level of self-motivation of females and males might cause the close level of learning and achievement, and this might arrive at the non-significant gender effect conclusion.

In the literature, the majority of the studies in the world and in Turkey (Arslan, 2009; Behçetoğulları, 1993; Burstall, 1975; Carroll, 1975; Dursun, 2007; Lewis & Massud, 1975; Loulidi, 1989; Olszewski-Kubilius & Turner, 2002; Politzer, 1983; Swiatek & Lupkowski-Shoplik, 2000) exploring the gender effect on foreign language learning found the females' superiority. Few studies found the males' superiority (Cross, 1983) while few of them found a non-significant difference between the two gender (Burgoyne, Kelly, Whiteley & Spooner, 2009; Grace, 2000).

The current study's gender results are consistent with the results of Burgoyne, Kelly, Whiteley and Spooner's study (2009) which could not find any

gender effect on foreign language vocabulary learning. However, due to these various findings in the literature, the effect of gender on foreign language learning is inconclusive (Ellis, 1994).

5.3 Implications of the Study for Policy and Practice

Majority of the literature revealed the effectiveness of educational games in English learning. There are various books suggesting educational games for language learning (Buttner, 2007; Olliphant, 1997; Rinvolucri, 1995; Rowland, 1979; Watcyn-Jones, 1944), however; books suggesting educational games for foreign language learning for very young learners (Guse & McKay, 2007; Lewis, 1999; Pinter, 2006) are rare and in need. Hence, the books which include educational games for foreign language learning for very young learners should be devised and written by the experts. By this way, the educational games can be individually selected from the book and integrated into English lesson plans by the English teachers as daily applications in early childhood programs.

Devising a lesson plan and integrating the appropriate educational games in it are the language teacher's duties. However, to teach children and to devise a plan with the appropriate educational games, an English language teacher should know about the children and the early childhood education. At least, she or he should have the knowledge about children's physical, social, emotional, cognitive and linguistic development levels according to ages and basic practices of the early childhood education. In the light of this knowledge a teacher should follow

the English language curriculum in a class. However; Turkish Ministry of National Education (MONE) has not got English as a foreign language curriculum for early childhood education programs yet. When MONE prepared an English language curriculum for grades four to eight and implemented foreign language lessons starting from the grades four and five in primary schools all over Turkey in 1997, the course of "Teaching English to Young Learners" was integrated into English language teacher training and education programs in the universities. Likewise, MONE or policy makers ought to form a national foreign language policy and prepare English as a foreign language curriculum for early childhood education program, and integrate a new course about teaching English to very young learners into English language teacher training and education programs of the universities for pre-service teachers.

In addition, in-service English language teachers should be taken into account and seminars, conferences, workshops should be held by the universities and MONE about preschool-level foreign language teaching, child development and the importance of play and games in early years. In-service education courses or internships for early childhood English teachers should be organized for practical knowledge/ experience about teaching very young learners.

Parents of the children should be educated about early childhood education, its benefits, foreign language teaching at early ages, and the effectiveness of educational games. Moreover, they should be involved in games that are played in foreign language classes. Thus, the parents can play with their

children at home, by this way the usage of the foreign language is not restricted to classes.

Early childhood classrooms should be spacious and the tables, materials should be organized in such a way that children feel free to move, run and play individual or group games in English as a foreign language classes with their teachers. If spacious classes are not possible for each age group, a spacious educational game centre or class can be constituted and foreign language lessons can be done there interchangeably.

5.4 Recommendations for Further Research

This is a quantitative study but for further research a qualitative study including interviews, open-ended questions with children may be done to investigate the children's and teachers' thoughts about the educational games at early childhood level.

As a quantitative study, different age groups, for example five year-olds and six year-olds may be included in the study to compare the different age groups in learning a foreign language with educational vocabulary games and find which age group learn better via these games. Furthermore, this research may be done in more than one private preschool with more than 33 children, for example, in multi-age groups. Moreover; private preschools from the seven different regions of Turkey may be included in the study. Thus, the results of the study as the effectivenes or the ineffectiveness of picture vocabulary games in English as a

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foreign language learning at preschool level can be generalized to all over Turkey. In addition to the private preschools, state preschools may be included in the sample to examine whether the kind of the school, private or state, affect English as a foreign language vocabulary learning.

On the other hand, a study that investigates the pre-service teachers 'or in-service teachers' opinions about the usage of the educational games in English teaching in early childhood education to test their knowledge of teaching practices for very young learners, their self-confidence and self-efficacy about teaching a foreign language to preschool children. Furthermore, other foreign language teaching methods and techniques may be compared and contrasted with the games as a technique to find the method or technique that is more effective for very young learners' foreign language vocabulary learning.

Many other variables such as age, economic status, parental status, preschool's environmental condition, presence of another language, IQ (intelligence quotient) level, disability status, the presence of mental or developmental problems, the education level of parents, preschool teachers and English teachers, school types, teacher's age and experience may be included and investigated to determine the contribution of each variable to early childhood foreign language vocabulary learning. Also, the contribution of games on pronunciation, grammar, writing or speaking may be examined to see whether or not games have other beneficial, motivative effect on other language skills.

Lastly, longitudinal studies which last for two semesters or more years till the secondary school, high school or university may be done to see the effect of educational games in the long term.

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APPENDICES

Appendix A: Picture Vocabulary Games Used in the Study

Game 1: HEAR AND JUMP by Cratty (1971).

Learning objectives

To gain the ability to listen for specific vocabulary, recognise and respond to

sound patterns, words and to perform simple communicative tasks.

Aim

 To listen and respond to the names of animals.

Vocabulary

Duck, frog, butterfly

Materials

Two same sets of animal picture cards. A set contains three picture cards.

Rules and directions

1) Form two teams in the class. Lay two same sets of three picture cards on

   the floor separately.

2) Each time a student from both teams comes and stands in front of the class

   and the cards.

3) The teacher calls out the name of an animal in target language and the

   student who jumps on the correct picture wins a point for his team.

4) After a set amount of time has passed the team with the most points wins.

Game 2: MUSICAL FINGERS by Drinkwater (2008).

Learning objectives

 To gain the ability to listen for specific vocabulary, recognise and respond to sound patterns, words and to perform simple communicative tasks.

Aim

To listen and respond to names of animals.

Vocabulary

Deer, turkey, fish

 Materials

Three vocabulary picture cards, CD player and music.

Rules and directions

1) Children form a circle while standing.

2) Picture cards are placed in the centre of the circle.

3) Music starts and children walk round in the circle.

4) When the teacher stops the music, he/she calls out a vocabulary from the picture cards in target language.

5) The children all have to point at the correct vocabulary picture card.

6) The last student to point or the student who points the wrong picture card is out.

Game 3: ELODIE'S VOCABULARY GAME by Drinkwater (2008).

Learning objectives

 To gain the ability to listen for specific vocabulary, recognise and respond to sound patterns, words and to perform simple communicative tasks.

Aim

To listen and respond to names of animals.

Vocabulary

Bear, turtle, pig

Materials

Two same sets of picture vocabulary cards. A set includes three picture vocabularies.

Rules and directions

1) Divide class into two teams and divide the white/blackboard into two.

2) Stick a set of picture cards on one side of the board for the team A, and stick the other set of picture cards on the other side of the board for team B.

3) When the teacher says an animal in the target language, a child from each team comes up to the board.

4) The child who points or touches the correct picture card wins a point for the team.

5) The two players return to their seats while two more children stand for the game.

6) When the time is up, the team with the most points wins.

Game 4:   VOCABULARY HUNT   by Drinkwater (2008).

Learning objectives

 To gain the ability to listen for specific vocabulary, recognise and respond to sound patterns, words and to perform simple communicative tasks.

Aim

To listen and respond to names of animals.

Vocabulary

Camel, squirrel, crocodile

Materials

Five picture cards of camel, five picture cards of frog, five picture cards of lion. In total, there are 15 picture vocabulary cards.

Rules and directions

1) Children sit in a circle on the floor.

2) The teacher puts the fifteen picture cards randomly on the floor in the middle of the circle.

3) After putting the cards, the teacher chooses two students and calls out a vocabulary in target language. The two students try to collect the correct picture vocabulary card as many as possible.

4) When all the targeted cards are collected or the time is up, the cards are
    counted. The one with the most correct picture vocabulary cards at the end
    is the winner.

Game 5: HEAR AND JUMP by Cratty (1971).

Learning objectives

To gain the ability to listen for specific vocabulary, recognise and respond to

sound patterns, words and to perform simple communicative tasks.

Aim

 To listen and respond to the names of food.

Vocabulary

Banana, apple, cherry

Materials

Two same sets of fruit/vegetables picture cards. A set contains three picture cards.

Rules and directions

1) Form two teams in the class. Lay two same sets of three picture cards on
    the floor separately.

2) Each time a student from both teams comes and stands in front of the class
    and the cards.

3) The teacher calls out a name of a fruit/vegetable in target language and the
    student who jumps on the correct picture wins a point for his team.

4) After a set amount of time has passed the team with the most points wins.

Game 6: MUSICAL FINGERS by Drinkwater (2008).

Learning objectives

 To gain the ability to listen for specific vocabulary, recognise and respond to sound patterns, words and to perform simple communicative tasks.

Aim

To listen and respond to names of food.

Vocabulary

Carrot, pear, watermelon

Materials

Three vocabulary picture cards, CD player and music.

Rules and directions

1) Children form a circle while standing.

2) Picture cards are placed in the centre of the circle.

3) Music starts and children walk round in the circle.

4) When the teacher stops the music, he/she calls out a vocabulary from the picture cards in target language.

5) The children all have to point at the correct vocabulary picture card.

6) The last student to point or the student who points the wrong picture card is out.

Game 7: ELODIE'S VOCABULARY GAME by Drinkwater (2008).

Learning objectives

To gain the ability to listen for specific vocabulary, recognise and respond to sound patterns, words and to perform simple communicative tasks.

Aim

To listen and respond to names of food.

Vocabulary

Mushroom, strawberry, orange

Materials

Two same sets of picture vocabulary cards. A set includes three picture vocabularies.

Rules and directions

1) Divide class into two teams and divide the white/blackboard into two.

2) Stick a set of picture cards on one side of the board for the team A, and stick the other set of picture cards on the other side of the board for team B.

3) When the teacher says a fruit/vegetable in the target language, a child from each team comes up to the board.

4) The child who points or touches the correct picture card wins a point for the team.

5) The two players return to their seats while two more children stand for the game.

6) When the time is up, the team with the most points wins.

Game 8:   VOCABULARY HUNT   by Drinkwater (2008).

Learning objectives

 To gain the ability to listen for specific vocabulary, recognise and respond to sound patterns, words and to perform simple communicative tasks.

Aim

To listen and respond to names of food.

Vocabulary

Tomato, grape, corn

Materials

Five picture cards of tomato, five picture cards of potato, five picture cards of garlic. In total, there are 15 picture vocabulary cards.

Rules and directions

1) Children sit in a circle on the floor.

2) The teacher puts the fifteen picture cards randomly on the floor in the middle of the circle.

3) After putting the cards, the teacher chooses two students and calls out a vocabulary in target language. The two students try to collect the correct picture vocabulary cards as many as possible.

4) When all the targeted cards are collected or the time is up, the cards are counted. The one with the most correct picture vocabulary cards at the end is the winner.

Appendix B: EFL Vocabulary Performance Checklist

ENGLISH AS A FOREIGN LANGUAGE VOCABULARY PERFORMANCE CHECKLIST IN EARLY CHILDHOOD EDUCATION

Name: ………………………   Age: ……………………………

Date: ………………………   Teacher: ……………………….

Directions:

1- At a time lay down three picture cards randomly on the table/ floor and give direction to a child with "Point to the …" in a separate classroom.

2- Observe and wait for ten seconds. If the child performs correctly, in other words, if he/she physically points to the correct picture card, put a check on Performed. If the child performs incorrectly, in other words, if s/he physically points to the incorrect picture card, put a check on Not Performed.

3- If a child does not respond when directed, give the same direction second time in Turkish except for the target vocabulary such as "Hangisi 'turtle' göster!" Wait for another ten seconds. If the child does not respond again or responds incorrectly, put a check on Not Performed.

Performance Indicators	Performed (1)	Not Performed (0)
1-The child pointed to the duck.		
2-The child pointed to the frog.		
3- The child pointed to the butterfly.		
4- The child pointed to the deer.		

5- The child pointed to the turkey.		
6- The child pointed to the fish.		
7- The child pointed to the bear.		
8- The child pointed to the turtle.		
9- The child pointed to the pig.		
10- The child pointed to the camel.		
11- The child pointed to the squirrel.		
12- The child pointed to the crocodile.		
13- The child pointed to the banana.		
14- The child pointed to the apple.		
15- The child pointed to the cherry.		
16- The child pointed to the carrot.		
17- The child pointed to the pear.		
18- The child pointed to the watermelon.		
19- The child pointed to the mushroom.		
20- The child pointed to the strawberry.		
21- The child pointed to the orange.		
22- The child pointed to the tomato.		
23- The child pointed to the grape.		
24- The child pointed to the corn.		
TOTAL		

Appendix C: Sample Permission Form for the families of the preschoolers

ORTA DOĞU TEKNİK ÜNİVERSİTESİ

1956   MIDDLE EAST TECHNICAL UNIVERSITY

06531   ANKARA- TURKEY

VELİ ONAY MEKTUBU

Orta Doğu Teknik Üniversitesi Sosyal Bilimler Enstitüsü Okul Öncesi Eğitimi Bölümü yüksek lisans öğrencisi Hatice Elif KALAYCIOĞLU olarak Dr. Refika Olgan ve Doç. Dr. Gölge Seferoğlu danışmanlıklarında "Okul Öncesi Eğitimi İngilizce Kelime Öğreniminde Resim-Kelime Oyunları" başlıklı tez çalışması yürütmekteyim. Çalışmamın amacı, eğitici resim-kelime oyunlarının okul öncesi çocuklarının yabancı dil olarak İngilizce kelime bilgisine etkisi olup olmadığını araştırmaktır. Bu amacı gerçekleştirebilmek için çocuklarınızın İngilizce derslerime katılmasına ihtiyaç duymaktayım. Katılım sonunda çocukların hedef dilde belirlenen kelimeleri öğrenip gösterebilmelerini hedeflemekteyim.

Çalışma, dört hafta süreyle haftada iki defa yapılacak olan yaklaşık otuz dakikalık İngilizce derslerinden oluşacaktır ve derslerde resimli kelime kartlarıyla hayvanlar ve yiyecekler konu başlıklı yirmi dört kelime öğretilecektir. Uygulanacak olan öntest ve sontest sırasında öğrencilerden sadece hedef dilde söylenen yirmi dört kelimeyi resimli kartlarda göstermeleri istenecektir ve bu yolla veri toplanacaktır. Veriler gizli tutulup sadece araştırmacı tarafından değerlendirilecek ve elde edilecek sonuçlar bilimsel yayımlarda kullanılacaktır. Katılım hem veli hem de çocuk açısından gönüllüdür. Katılımcı bu formu imzaladıktan sonra da çalışmadan ayrılma hakkına sahiptir.

Bu çalışmaya onay verdiğiniz için şimdiden teşekkür ederiz. Çalışma hakkında daha fazla bilgi almak için Orta Doğu Teknik Üniversitesi Okul Öncesi Eğitimi bölümü yüksek lisans öğrencisi Hatice Elif Kalaycıoğlu (E-mail: e168199@metu.edu.tr) ile iletişime geçebilirsiniz.

- -

Yukarıda açıklamasını okuduğum çalışmaya, oğlum/kızım

_____'nin katılımına izin veriyorum. Ebeveynin:

Adı, soyadı: _____ İmzası: _____

Tarih: _____

İmzalanan bu formu lütfen okul aracılığı ile .... Hatice Elif KALAYCIOĞLU' na ulaştırınız.

Çocuğunuzun katılımı ya da haklarının korunmasına yönelik sorularınız varsa ya da çocuğunuz herhangi bir şekilde risk altında olabileceğine, strese maruz kalacağına inanıyorsanız Orta Doğu Teknik Üniversitesi Etik Kuruluna (312) 210-37 29 telefon numarasından ulaşabilirsiniz.

Appendix D: Permission from Middle East Technical University Research Centre for Applied Ethics

1956

Sayı: B.30.2.ODT.0.AH.00.00/126/ 113 —1484

20 Aralık 2010

Gönderilen: Öğr.Gör.Dr. Refika Olgan

Okul Öncesi Öğretmenliği Bölümü

Gönderen : Prof. Dr. Canan Özgen

IAK Başkan Yardımcısı

İlgi : Etik Onayı

"Okul Öncesi Eğitimi İngilizce Öğreniminde Resim — Kelime Oyunları" başlığı ile yürüttüğünüz çalışmanız "İnsan Araştırmaları Etik Komitesi" tarafından uygun görülerek gerekli onay verilmiştir.

Bilgilerinize saygılarımla sunarım.

Etik Komite Onayı

Uygundur

20/12/2010

Prof.Dr. Canan ÖZGEN
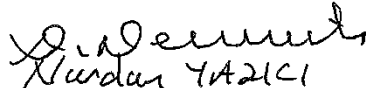Uygulamalı Etik Araştırma Merkezi
(UEAM) Başkanı
ODTÜ 06531 ANKARA

157

Appendix E: Permission from the preschool

05. 01. 2011

Orta Doğu Teknik Üniversitesi'ne,

Ankara

Anaçev Dünya Barışı okul öncesi eğitim kurumu olarak Orta Doğu Teknik Üniversitesi

Okul Öncesi Eğitimi Bölümü yüksek lisans öğrensici Hatice Elif KALAYCIOĞLU'na "Okul

Öncesi Eğitimi İngilizce Öğreniminde Resim-Kelime Oyunları" başlığı ile yürüttüğü tez

çalışması için okulumuzda bulunan dört yaş sınıflarında uygulama yapmasına izin verilmiştir.

Bilgilerinize saygılarımla sunarım.

Nurdan YAZICI
ANAÇEV Dünya Barışı
Çocuk Yuvası Müdürü

Adres: Anaçev Dünya Barışı Çocuk Yuvası ve Kulübü

Ahmet Taner Kışlalı Cad. 725. sokak No: 13

Ümitköy- Ankara