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THE EFFECT OF DIFFERENT MUSICAL GENRES ON THE TEXT RECALL OF TURKISH EFL LEARNERS AND INVOLUNTARY MENTAL REHEARSAL

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Peyami Safa YAPRAK

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FARKLI MÜZİK TÜRLERİNİN İNGİLİZCEYİ YABANCI DİL OLARAK ÖĞRENEN TÜRK ÖĞRENCİLERİN METİN HATIRLAMALARI ÜZERİNE ETKİSİ VE İSTEMSİZ ZİHİNSEL TEKRARLAMA

YÜKSEK LİSANS TEZİ

Peyami Safa YAPRAK

Danışman
Doç. Dr. Esim GÜRSOY

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Tezi Hazırlayan

Peyami Safa YAPRAK

Danışman

Doç. Dr. Esim GÜRSOY

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Üye
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Üye
Prof. Dr. Selçin AYDIN

Üye
Dr.Ö.Ü. Aygun Dince

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Danışmanı : Doç. Dr. Esim GÜRSOY

FARKLI MÜZİK TÜRLERİNİN İNGİLİZCEYİ YABANCI DİL OLARAK ÖĞRENEN TÜRK ÖĞRENCİLERİN METİN HATIRLAMALARI ÜZERİNE ETKİSİ VE İSTEMSİZ ZİHİNSEL TEKRARLAMA

İngilizce öğretmenleri arasında müziğin dil öğretiminde faydalı bir unsur olduğuna dair genel bir kanı vardır ve dil sınıflarında müzikten sık sık faydalanılır. Fakat ihmal edilen bir nokta vardır ki; müzik çok geniş bir kavramdır ve içinde onlarca farklı tür barındırır. Bu çalışma farklı müzik türlerinin dil öğretiminde öğrencilerin bir metni hatırlamaları üzerine olan etkilerinin farklı olup olmadığını ortaya çıkarmayı amaçlamaktadır. Bu çalışmanın katılımcıları Türkiye'de bir devlet okulunda öğrenim gören 112 lise öğrencisidir

Bu araştırmada, üç deney grubu ve bir kontrol grubu yer almaktadır. Deney grupları bir metni bir ders saati boyunca işleyip dersin sonunda aynı metni 3 kere şarkı formunda dinlerken, kontrol grubu metni bir konuşma kaydı olarak dinlemiştir. Her bir deney grubu aynı şarkının rock, jazz ve reggae versiyonlarından birini dinlemiştir. Bu uygulamanın hemen

sonunda metin, içindeki bazı kelimeler silinerek, cloze test formunda tekrar verilmiştir ve katılımcılardan hatırladıkları sözcükleri yazmaları istenmiştir. Aynı işlem 2 hafta sonra tekrar edilmiştir. Ve bu sayede katılımcıların kısa süreli ve uzun süreli metin hafızalarının müzik türlerine göre değişiklik gösterip gösterilmediği ortaya çıkarılmaya çalışılmıştır. Ayrıca bu çalışma dâhilinde farklı müzik türlerinin istemsiz zihinsel tekrarlama olarak da adlandırılan çınlama hadisesini farklı düzeylerde tetikleyip tetiklemediği de incelenmiştir.

Sonuçlar analiz edildiğinde, metni kısa süreli hatırlamada deney grupları ve kontrol grubu arasında belirgin bir fark gözlenmezken, uzun süreli hatırlamada rock türü ile diğer türler arasında anlamlı bir fark gözlemlenmiştir. Ayrıca istemsiz zihinsel tekrarlamanın tetiklenmesi konusunda jazz türünün diğer türlerden belirgin bir biçimde daha az etkili olduğu gözlemlenmiştir.

Anahtar Sözcükler: Müzik tarzı, metin hatırlama, istemsiz zihinsel tekrar

Abstract

Author : Peyami Safa YAPRAK

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Thesis : The Effect of Different Musical Genres on the Text Recall of Turkish EFL Learners and Involuntary Mental Rehearsal

Supervisor : Doç. Dr. Esim GÜRSOY

THE EFFECT OF DIFFERENT MUSICAL GENRES ON THE TEXT RECALL OF TURKISH EFL LEARNERS AND INVOLUNTARY MENTAL REHEARSAL

There is a general consensus among English teachers that music is a useful element in language teaching, and music is often used in language classes. But there is a neglected point; music is a very broad concept and contains dozens of different genres. This study aims to find out whether the effects of different music genres on text recall of students are different. The participants of this study are 112 high school students in a public school in Turkey

In this research, there are three experimental groups and one control group. While the experimental groups learned a text for one lesson and listened to the same text in the form of a song three times at the end of the lesson, the control group listened to the text as a spoken recording. Each experimental group listened to one of the rock, jazz and reggae versions of the same song. At the end of this application, some words in the text were deleted and given

again in the cloze test form and the participants were asked to write the words they remembered. The same procedure was repeated after two weeks. In this way, it was aimed to find out whether the immediate and delayed text recall performances of the participants vary according to the genres of music. In addition, in this study, whether different musical genres trigger the din, also called as involuntary mental rehearsal, to different extents is inquired.

When the results were analysed, no significant difference was observed between experimental and control groups in immediate text recall, while a significant difference was observed between rock and other genres in delayed text recall. It was also observed that jazz is significantly less effective than other genres in triggering involuntary mental rehearsal.

Key Words: Musical Genre, text recall, involuntary mental rehearsal

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Chapter 1

Introduction

Dating back to the early ages of human history, music has become an essential part of human life. Many fields of life, from politics to business, benefit from music. Street (2003) accounts for the influence of music from the perspective of politics by asserting that music has a direct effect on our emotions and election campaigns benefit from music to a great extent. In parallel with his claims, in the field of business, Alpert, Alpert and Maltz (2005) provide empirical support for the claims that when music is used in the background, it enhances the likelihood of purchasing. Military service, medicine, sports, religion, cinema are just a few other examples from a great variety of fields benefiting from the music.

As for the language education, researchers think not unlikely that music has a considerable influence on learning. According to Engh (2013) the use of music and song in the English language-learning classroom is long standing as teachers intuitively feel that music is an effective tool in teaching English language. Similarly, Schunk (1999) claims that music has become a valued instrument in the design and practical application of English as a second language instruction. Bygrave (1995) considers music as a means of learning, provides structure, rhythms, and patterns of sound, as well as opportunities for the use of analytical and reflective skills.

In the light of the views mentioned above, a large number of studies conducted in an attempt to get empirical evidence on the influence of music on different language competences like, listening, reading, writing, vocabulary recall, grammar (Arevalo, 2010; Atta-Alla, 2012; Hancock, 2013; Martin, Wogalter & Forlano,1988; Rahbar & Khodabakhsh, 2013; Register, Darrow, Swedberg & Standley, 2007; Sarıçoban & Metin, 2000; Şevik, 2012; Thompson, Schellenberg & Letnic, 2012). The effect of music on text recall likewise was investigated by a number of researchers.

Salcedo (2002) conducted a study with 94 students to compare the recall of words learned in spoken form with words learned through song. Höfler (2013) broadened the same study concerning the other variables like gender of the students. The present study will also associate the text recall with the music and question the genre interference.

Another point of focus for this study will be involuntary mental rehearsal (i.e., the din phenomenon) which is a literary term firstly discussed by Stephen Krashen (1983) in detail. According to Krashen (1983) it is a natural process that many language learners are attempting to acquire a second language experience in both natural and formal circumstances. To put it simply, the din phenomenon can be defined as; having a din of words, sounds, sentences of a foreign language in the head after being exposed to that language on some occasions.

1.1. Statement of the Problem

Musical genres are labels created by humans in order to categorize different pieces of music. This categorization is done by characterization of the common points shared by its members. While creating these characteristics instrumentation, rhythmic structure and harmonic content of music are concerned (Tzanetakis & Cook, 2002). According to Fabbri (1982), musical genre is; "a set of musical events (real or possible) whose course is governed by a definite set of socially accepted rules" (p.1). On the other hand, asserting that it is really hard to describe musical genres in a systematic way and there is no consensus on their definition and assessment, Basili, Serafini and Stellato (2004) ascribe the development and assessment of a genre to the community itself which they see as a self-organizing complex system. With reference to this view, classrooms, as they are a part of community, contributes to labelling a musical genre.

Several researchers handled a specific musical genre as a teaching tool. Morales Neisa (2008) evaluated rock music as a teaching/learning tool. Similarly, Mot (2003) discusses the

rock music as a literary material. Domoney and Harris (1993) and Lenka (2011) investigated the influence of integrating pop music into classroom activities, Chujo (2011) mentioned about using jazz as a warm up activity, Ferrarese (2017) gathered data from Italian punks and proposed punk as an EFL teaching tool. Lee (2011) investigated the globalization of African American Vernacular English in popular culture through Korean Hip Hop.

On the other hand, as a result of the fact that there are countless classrooms and learning environment belonging to different social and cultural groups, it is obvious that a certain genre appeals to a group of learners to different extents. In other words, as a teaching tool, genre of the song from which teachers benefit plays a role which is an underestimated phenomenon. The present study sees this disregard as a problem.

Despite the fact that it is experienced by almost all language learners, din phenomenon has not become of interest to study by researchers except for a limited number of studies. After Krashen (1983) demonstrated that the din phenomenon can have a practical value and asserted that if reliable reports are obtained from learners regarding when they experience din, teachers can plan their lessons according to these reports and make instructions more effective, first study is carried by Bedford (1985). Bedford (1985) conducted a questionnaire with 160 foreign and second language learners and found that involuntary mental rehearsal is widespread. In parallel with Bedford's (1985) findings, Parr and Krashen's (1986) study also showed that involuntary mental rehearsal is frequently experienced by learners. Differently from the previous studies, Murphey's (1990) study was the first one to mention about a link between music and involuntary mental rehearsal. In a more current study carried by Salcedo (2010) with 94 participants, Murphey's (1990) opinions were empirically supported and it was found that songs have a positive effect on din occurrence. However, to the researcher's knowledge, the effects of different musical genres on involuntary mental rehearsal have never been studied before.

1.2. RESEARCH QUESTIONS

In the light of this background information, following research questions will be answered;

1- Is there a significant increase in immediate text recall of elementary level Turkish high school EFL learners when the text is learned through the use of songs compared to those who learned the text through a spoken recording?

2- Is there a significant increase in delayed text recall of elementary level Turkish high school EFL learners when the text is learned through the use of songs compared to those who learned the text through a spoken recording?

3- Do musical genres differ in terms of enhancing immediate text recall of Turkish high school EFL learners?

4- Do musical genres differ in terms of enhancing delayed text recall of Turkish high school EFL learners?

5- What are Turkish High School EFL learners' opinions about the musical genres being used during the lessons?

6- Do elementary level Turkish EFL learners who learned a text through a song experience a higher and more frequent occurrence of involuntary mental rehearsal when compared to a spoken recording?

7- Do different musical genres triggers involuntary mental rehearsal to different extents?

1.3. Purpose of the Study

The present study intends to get empirical data about the effects of different musical genres on learners' text recall and get reliable reports from students on their experiences of involuntary mental rehearsal. With this information gathered, the present study aims to raise awareness of this issue and encourage researchers to do further studies which may lead to enable teachers to choose more effective songs and musical genres to make text recall more

comprehensible and to find ways of exposing students to the target language by triggering a din in their head.

1.4. Significance of the Study

It is not new that researchers discussed the effects of songs as a teaching tool. A large amount of studies measured their effectiveness with empirical data and among them, some studies focused on a specific genre such as hip-hop, jazz, pop. (Akagi, 2016; Chesley, 2011; Shakerian et al., 2016). These studies handled one certain genre as an experiment tool. However, differently from the previous ones, this study is going to compare the effects of different genres on text recall in the same study. In this aspect, it can be claimed that this study aims to fill a gap in the literature.

Moreover, this study is going to contribute to findings of Salcedo (2002) since it is going to provide reports from a different perspective. Salcedo's (2002) study has already showed that music has an impact on triggering involuntary mental rehearsal. Similarly, Höfler (2013) conducted a study with reference to Salcedo's (2002) findings and he found out that songs influence the din occurrence in a positive way. However, upon their findings, a question of "What kind of music triggers involuntary mental rehearsal?" may appear. This study is going to be the first to answer this question and show if there is a difference between genres in terms of triggering involuntary mental rehearsal.

The following excerpt from Höfler (2013) shows the significance of the study;

In this respect, future research should be based on the inclusion of a greater number of songs, which might also allow for a more detailed investigation of influencing factors on recall performances as regards song characteristics, appraisal, and the song's potential to successfully trigger involuntary mental rehearsal (p.104).

As for the reason why triggering involuntary mental rehearsal is important, Krashen (1983) states that;

The din may have a practical value. If the above speculations are correct and if we can get reliable reports from students on when the din is "on" and when it is "off", it may help to tell us when our instruction is effective, how long lessons should be, their optimal frequency, what topics should be discussed etc. In short, it may tell us when we are providing truly interesting and comprehensible input, and, thus, when we are causing a real second language acquisition. (p.44)

1.5. Assumptions

It is natural that any human being who listens to music has a taste of music. This is the same for societies as they share some common tastes of music. For instance, while the "Fado", as a cultural metaphor for Portuguese people, providing an illustration of the Portuguese cultural mindset and it was embraced by the population as a representation of national identity from all eternity (Nielsen, Soares &Páscoa Machado, 2009), "gagaku" is a japanese music genre which is mostly adopted by imperial court (Lancashire, 2003). Though folk music is losing its popularity in the globalizing world due to the proliferation of social networks and some popular genres like hip-hop and rock are listened by billions of people, there are still some differences between social groups in terms of taste of music. That is, while a cultural group finds a piece of music easy on the ear, the other group may find it odd. Moreover, genres may have different effects on a group.

In addition, a number of researchers (Höfler, 2013; Salcedo, 2002) reported that involuntary mental rehearsal is affected by music. With regard to the fact that there are some differences between social groups in terms of taste of music, it can be assumed that the way a certain piece of music affects a certain group's involuntary mental rehearsal may vary. In this respect we assume that different musical genres may have different effects on text recall and involuntary mental rehearsal of students.

1.6. Limitations

Though there are some certain characteristics of genres in music, there is still no absolute consensus over the definitions of musical genres. Therefore, this study is open to discussions in this aspect. Likewise, involuntary mental rehearsal is difficult to observe as it is an abstract notion. Therefore inability to get absolute reports from students is another limitation of the Study.

1.7. Definitions

Involuntary Mental Rehearsal: having a din of words, sounds, sentences of a foreign language in the head after being exposed to that language especially in the low proficiency levels

Din: i.e. Involuntary Mental Rehearsal

Genre: Kind of music

SSIMH: Song stuck in my head phenomenon

Chapter 2

Literature Review

2.1. What is music?

Unquestionably, everyone knows what music is. However, music is one of the most difficult concepts to make an exact definition. Although glossary definition is "the science or art of ordering tones or sounds in succession, in combination, and in temporal relationships to produce a composition having unity and continuity" (Merriam-Webster, n.d.), Brown, Merker and Wallin (2001), objects to this infinite description by referring to John Cage's composition which consists of four minutes and thirty three seconds of continuous silence and asserts that ethnomusicologists have usually preferred to center on functional context and roles and described it as an "organized cultural activity". However, Brown et al. (2001) also put an emphasis on the fact that this ambiguity may easily lead to the conclusion that music is simply whatever people consider it to be.

Dorrell (2005) deals with the question with an analogy of "what is a car?" question. According to Dorrell (2005), when you ask the question "what is a car?" one can easily point to the street and say "one of them" however explaining the mechanism of car, petrol, suspension, brakes would be more satisfactory. Likewise, the mechanism of the music involves instruments, notes, scales, rhythm, tempo, chords, harmony, bass and melody.

Music is a basic communication channel. Even though they speak different languages, people are able to share their feelings, thoughts and concepts through music. It also creates a living space for people with difficulties in other types of communication. Music can have strong physical effects on people and it can evoke deep, strong emotions. Through rapid technological developments, commercialization and the development of a variety of devices such as walkman, the internet, video recorder, today music is much more involved in our daily lives than it was in the past (Hargreaves, Miell & Macdonald, 2002). In order not to be

entangled in this diversity of countless different definitions, the criteria of having the elements of melody, rhythm or harmony will be adopted while evaluating something as music.

2.2. Origin of music

Music has been so long in our lives that we may assume that it emerged simultaneously with the entity of the world may not seem as an overrated implication. Moreover, according to Pamir (1989) time is the main component of music as well as language. From this perspective we can conclude that music is as old as time itself. However we think the world we live in is complex, according to the supporters of evolution which is a mechanism intending to figure out this process of getting complex, there was simplicity before complexity. In order to illustrate the origin of music, some scientists refer to evolutionary views and they assume that there was simplicity in the very past of music, as well.

According to Brown et al. (2001) the origins of music may be explored with the observation provided by behavioral biology on topics such as animal vocalization and communication. Since evolution tells us that all living organisms have come from a single source, it is natural for us to come to the conclusion that there is a connection between animals and people's behaviors. Primitive people may have imitated the chirping birds, roaring lions that they see in nature. In parallel with Brown et al.'s (2001) opinions, Mithen (2006) agrees with the arguments that vocalizations and gestures used by non-human primates are most likely analogous to those used by early hominins. Similarly; Masataka (2007) demonstrate that monkeys communicate with each other at a distance, producing tonal sounds, stereotyped phrases, biphasic sounds, acceleration in the rhythm of sounds, and slowing down at the end of the phrase, and acoustically they resemble the sounds of human infants. Masataka (2007) reflects that the first melodic sounds that people produced, may be similar to those of apes.

On the other hand, Dorrell (2005), from the language perspective, lists some of his assumptions of the things that music may have evolved from in the following way;

- Reciprocal communicative noises between mothers and their babies

- Specific aspects of language such as rhythm and melody of a language.

- Alternatively, language evolved from music, and music continued to exist.

According to Wallaschek (1891) music evolved from rhythm but not from melody. He bases his views on the idea that seeing a fixed melody is very rare even in savage tribes, it shows a great diversity from singer to singer and to recall a song rhythm should be recalled first, tunes come after that…

Another evolutionary point of view about the origin of music includes the fact of sexual selection. Just as in the contemporary world, the figure of a man who serenades or plays a guitar on the beach to influence a woman is caricatured; it is thought that music also evolved because it gives an advantage in getting a man partner. But Dissanayake (2009) opposes this hypothesis for the following reasons;

- This hypothesis negates the fact that music can sometimes be performed together by couples who are already partners in animals' life for the purpose of territory maintenance (duetting gibbons) and showing courtesy (cranes)

- Music is an art that can be performed by partners who compete with each other as well as cooperating with each other.

2.3. Neural Basis of Music Perception

Although language and music are similar in terms of neurological foundations; the diversity of sounds is much broader than language which is limited by the limited number of morphologic and sound sequences to meet the needs of communication, and they can come out in many different combinations. In order for music neuroscience to be fully taken into

account, it is necessary to investigate brain systems that include mechanisms of action, emotion, social computing, interest and memory (Janata, 2015).

The traditional view on the neurological basis of music, although it is never strictly agreed on, divides the brain into the right hemisphere and the left hemisphere and a number of studies showed that left hemisphere of musicians differs from non-musicians' (Gaser & Schlaug,2003; Limb, Kemeny, Ortigoza, Rouhani & Braun, 2006; Schlaug, Jancke, Huang, & Steinmetz, 1995). According to this separation, the music is processed in the right hemisphere while language is processed on the left hemisphere of the brain. Whereas, Altenmüller (2001) mentions that this traditional view, even supported in the textbooks, is no longer acceptable. In his study of amateur and professional musicians, in the end of a harmony and melody discrimination task, Altenmüller (2001) found that amateurs activated frontal lobes and the right temporal lobe, whereas professional musicians activated left front temporal lobes. According to Altenmüller (2001), with reference to such a finding, rather than a specific music centre in the brain, music processing substrates reflect the way of listening.

When we approach the subject again in terms of biomusicology, the discovery of mirror neurons in the macaques' brain has been a development that opens up a great window for us to analyse the mechanisms of perception and action, empathy and human communication. With this discovery, it has emerged that observing, or hearing that the action was carried out by others fires the same neurons with the execution of an action. With reference to this discovery, Molnar Szakacs & Overy (2009) proposed that besides being perceived as an auditory signal, music is also perceived as intentional, hierarchically organized sequences of expressive motor acts and human mirror neuron system enables empathy between the agent and the listener in terms of sharing a musical experience. Furthermore, Molnar Szakacs and Overy (2009) expand upon their theory on their model they called "Shared Affective Motion Experience". To briefly illustrate, Shared Affective Motion

Experience, regardless of a particular style or function of the music, can convey the emotional state of one person to another person. In other words, music is not just a pleasant sound; it is a strong reflection of the emotional state of the person who transmits it. Therefore, in one respect, the person who listens to music is not alone. It is this function of music that creates an emotional unity that enables a sense of unity in societies including people from different cultures and ages.

When we talk about musical perception, we should refer to the question how the brain perceives harmony, regarding the sense that music is a result of a harmony. Tramo, Cariani, Koh, Makris and Braida (2003) claim that; according to the assumption reached by observations made on animals and different disciplines such as ethnomusicology, developmental psychology, the perception of harmony in the brain involves two things; "(1) the capacity of peripheral auditory neurons to encode temporal regularities in acoustic fine structure and

(2) the differential tuning of many neurons throughout the auditory system to a narrow range of frequencies in the audible spectrum "(p. 127) and when a harmonic part is played, all the neurons that are sensitive to these frequencies in this auditory system respond with the potential to trigger an action.

2.4. Diverse Fields that Benefit From Music

Although the first thing that comes to mind about music is that it is a branch of art, having coexisted with humans for thousands of years, we can easily find out that music is seen in a large number of different fields apart from its artistic aspect.

Music has been used for decades to make patients feel better. Our brain triggers some biochemical reactions when it perceives music. Some findings indicate that; music activates the same area in the brain with food, drugs and sex that create feelings of satisfaction (Gangrade, 2012). According to Gangrade (2012), thanks to messengers such as hormones,

neurotransmitters, cytokines and proteins, music elicits biological responses to stress, emotions and immune system.

In the field of medicine, in a study carried by Arnon, Shapsa, Forman, Regev, Bauer, Litmanovitz & Dolfin (2006) in which 30 minutes of live music is played in the Neonatal Intensive Care Unit, it was demonstrated that heart rate and increased blood oxygen saturation were inclined to reduce with live singing compared to no music.

As growing companies need to be advertised, we see hundreds of ads every day and we can easily notice that music is in almost every tone of them. Dumbar (2015) lists how music contributed to the advertising world as follows:

- Music gives an emotional dimension to the brand. The choice of music can give the impression that a brand is a big, self-confident, well-equipped firm, or an all-out brand that is unsure of itself.

- In the same way, music also gives a feeling to the buyer. It can affect the buyer whether the product is warm and sincere, cold and technical, young and dynamic, old and reliable. It can make the consumer think an old-fashioned product is brand new and trendy.

- Music can add a different dimension to the visuals.

- Music is more memorable than words. It also makes the words that are used together reminiscent at the same time.

As we have already declared music arouses emotions like excitement and peace. It also evokes the feeling of courage which explains the use of music in military areas. The closest example to this usage is the orchestra called the "mehter team" which go to war with the army to give courage to the army during the Ottoman period. Nowadays, every army has a band which motivates the soldiers in tough conditions.

Besides its positive effects on human physiology, music is also observed to have positive effects on human psychology. Moreover, the therapeutic effect of music is not just about people, but also about other living things. Sezer (2011) empirically supported this in his study carried on 288 participants. Using "The State Trait Anger Scale and Anger Expression Scale and Brief Symptoms Inventory", Sezer (2011) found that there is a link between the types of music the participants listen to and their daily psychological states.

In politics, music is seen as an effective way of convincing the masses. During the elections, songs of the parties are played on the streets of the cities for days. Throughout history, politicians have benefited from music. Rulers have rewarded and supported the musicians who praised themselves and emphasized their strengths. This is the same for primitive communities, European palace musicians and the Ottoman Empire. Most of the Sultans in the Ottoman Empire supported composers they appreciated in terms of material supply. Similarly, many composers worked with the king in Europe (Göher, 2009).

2.5. Music in Education

Stating that teachers face cultural and ethnic differences of pupils' every day and accepting that there is no single learning style that applies to all children, Blackburn (2017) asserts that music is the cheapest, most generic learning tool. According to Blackburn (2017), the use of music in the background provides a safe and peaceful learning environment for students. Therefore, music should be used in the classroom.

On the contrary of Blackburn's (2017) views, there have been contradictory findings about the use of music in education for a long time. Vernetti and Jacobs (1972) conducted a study on 53 children with learning difficulties. Students were first asked to solve a test consisting of 20 mathematical problems in the usual environmental noise match, then to solve it while music was playing in the background. As a result of the research, they could not find any connection between the test that was solved in the music accompaniment and the test that

was solved in the ordinary environmental noise. On the other hand, Register, Darrow, Swedberg and Standley (2007) conducted a 4-week study that included students who have reading disabilities. In this study, it was found that children who had difficulty in reading comprehension made significant progress in the result of reading activities when the music was played.

In his study carried on emotionally disturbed students in three classes in New York, Campbell (1996) observed that soft background music reduced undesirable behaviours such as getting up in the classroom or speaking out loud. The variability of behaviours was also observed to decrease compared to the classes without music.

O'Sullivan (2008) approaches music in education from a different perspective and asserts that music should be chosen according to the emotion aimed to evoke concerning the audiences and the atmosphere of the moment. According to O'Sullivan (2008), some songs can be used to provide calmness, while others can be used to promote vitality and participation. O 'Sullivan (2008) leaves the question "Can a certain kind of music be effective compared to others without achieving a certain achievement?" unanswered and points to future studies to be done in this regard, which is one of the inspirations of the present study.

2.6. Mozart Effect

A study conducted by Rauscher, Shaw and Ky (1993) in California revealed the phenomenon called "Mozart Effect", which has been discussed by many researchers for many years. In this study, Raush, Shaw and Ky (1993) applied three different standard reasoning tests on 36 students. Before a test, a group of students listened to Mozart's "Sonata for two pianos in D Major K488" for 10 minutes. Before the other test, the participants were given directions for relaxation for 10 minutes. Before the final test participants were asked to remain silent for 10 minutes. As a result of the research, it was observed that the results of the Mozart

listening test were higher than the others. As a result, Rauscher, Shaw and Ky (1993) concluded that Mozart had a positive effect on short-term spatial reasoning.

On the other hand; Steele, et al. (1999) applied this experiment to the participants from three different universities, it was observed that listening to Mozart had no significant effect on short-term spatial logic. According to Steele et al. (1999), these findings were a requiem for Mozart Effect.

As the Mozart Effect gradually began to be of interest in the scientific world, the number of such replications increased. Among them there were a lot of studies replicating the results of Rauscher, Shaw and Ky's (1993) experiment. As some of the studies didn't replicate the effect, Rauscher and Shaw (1998) introduced some key components to conduct the study in a more appropriate way. According to Rauscher and Shaw (1998), researchers should be cautious about issues such as task validity, methodology of experimentation, ages of participants, and participants' aptitude for the task. In response, Steele, Bass, and Crook (1999) conducted a study again, taking into account Rauscher and Shaw's (1998) remarks. Although Rauscher and Shaw (1998) had 79 participants in the study, Steel, Bass and Crook (1999) raised this number to 125 and evaluated them in 3 different situations. Participants were subjected to tests including paper folding and cutting questions and they were divided into 3 groups according to their success levels. Before asking 16 spatial questions such as folding and cutting paper , one group listened to Mozart's "Sonata for Mozart's Two Pianos, K. 448" for 8.24 minutes, other group listened to Philip Glass's " Music With Changing Parts "and the last group remain in silence for 8.24 minutes. As a result of the tests, there was no significant difference between the scores of the groups. According to Steel, Bass and Crook (1999) the reason why the Mozart Effect is so popular that it claims to be a short and easy remedy for the development of intelligence.

2.7. Musical Genre Classification

Music genres are created by people to categorize a musical piece. The genre of music is determined by the characteristics adopted by its members. These features are usually related to the arrangements of the instruments, the rhythmic structure and the harmony of music. This genre classification is usually created to arrange a wide range of music collections on the web. (Tzanetakis & Cook, 2002). Tzanetakis and Cook (2002) conducted a study to categorize the musical pieces automatically according to the timbre, rhythmic content and pitch of music signals which reveals that classification performed automatically is almost the same with the genre classification done by humans and they designed that automatic system which recognize the timbral textual features, timbral textual feature vector, rhythmic content features, pitch content features and whole File and Real-Time Features and categorize an audio according to these extractions.

On the other hand, the term genre is still very problematic in nature. Even among humans, there is rarely consensus about the characteristics of a genre. On the contrary of Tzanetakis and Cook's (2002) views, according to Mckay and Fujinaga (2006), it is inevitable that some errors will occur during the automatic construction of this categorization. The number of clearly defined genres is very small. Genres sometimes overlap with each other. Sometimes a song can fit several genres. Another factor that further complicates matters about the classification of genres is the emergence of new genres over time and the change of the genres already defined.

In parallel with Mckay and Fujinaga (2006), Lamere (2008) highlights the problems of genre classification. According to Lamere (2008), there is no agreement on a widely accepted taxonomy. As a result of the studies inconsistencies between taxonomies were revealed. Even

researchers; have ceased to exist in such a struggle, by addressing a set of difficulties in establishing a coherent, understandable taxonomy.

Another study on automatic categorization of music was conducted by Xu, Maddage, Shao, Cao, & Tian (2003). In this study, four styles of music, including classical, rock, jazz and pop, were determined. Then, in order to make a distinction between the genres, some features of the genres were determined and a Support Vector Machine was developed. Beat spectrum, linear predictive coding (LPC), zero crossing rates, spectral power and mel frequency cepstral coefficients were taken into consideration when the features of the genres were determined. As a result of the research, support vector machine's performance was quite substantial.

In another study on the automatic categorization of genres, the signals were defined as background noise, speech, and one of 13 music genres. During this identification, well-known physical and perceptual features, audio descriptors defined in the MPEG-7 standard were taken into consideration. But unlike previous studies, these features were defined in a hierarchical approach. In this study, conducted 50 audio samples and 850 file database, it was observed that categorization done automatically with this hierarchical approach have the following advantages;

- It ensures that mistakes during the categorization of the genres are at a more acceptable level.
- Hierarchical approach evaluates the class independence of features.
- It enables the discriminability of frequently used styles and makes them more suitable for automatic classification.
- Provides a framework for designing more comprehensive features in the future studies of categorization.
- It facilitates the expansion of the future taxonomy (Burred & Lerch, 2003).

It can be said that the concept of musical genre carries an inherent ambiguity because of a dualist point of view in our world. First, the word "genre" can be used as an intentional concept. By this way we would be interpreting a judgment that is produced and shared by society. In other words, the genre here is a linguistic element like a word we ascribe to a certain action or a notion. For example, we think that the song "Yesterday" by The Beatles is a Brit-Pop piece because it is made by The Beatles and community has general cultural information about the Beatles. Second, we can use genre as an extensional concept. This requires analysis of the music's internal elements. For example; dimensions such as the tempo of the music, timbre of the music, language of the lyrics used need to be evaluated. From this perspective, it can be concluded that the song Yesterday by Beatles is a mellow pop song because there is a melody of light tempo, there are string instruments in the substructure and it is sung with a melancholic voice (Aucouturier & Pachet, 2003).

2.8. A Brief Overview of Musical Genres

Sordo, Celma, Blech, and Guaus (2008) demonstrate two different approaches when classifying genres: 1) definitions that a group of musicologists who are experts in their field have consciously created, and 2) social labels that a community creates according to their values. According to Sordo et al. (2008), the approach of the experts is to create a whole of hierarchical terms, and the other approach whose output is called folksonomy, is a more informal bottom-up process. Though there are a great number of genres and subgenres, the most popular genres may be pop, rock, jazz, and hip-hop.

2.8.1. Pop Music. As it is known, the term "pop music" is the short form of the expression "popular music" which leads us to the most important feature of pop music; to be popular. At this point, Kotarba and Vannini (2008) arise the following question: "If popular music is music that is heard by a large number of people, then if one day a great number of people would enjoy listening to classical music, classical music would be pop music. "They

give the answer at the same time; "definitely yes". Kotarba and Vannini (2008) argue that the difference between high-status music such as opera and low-status music such as surf rock is arbitrary when considered sociologically, but they do not neglect to say that there are certain differences between styles.

As for the question "why is pop music so popular?", Gantz, Gartenberg, Pearson and Schiller (1978) aimed to find an answer to this question in their research. The study was conducted on 468 students, via a survey and interviews. According to the results of the research, 91 percent of the participants cited listening to pop music because it prevents them from getting bored while dealing with other things and because it helps killing time. The other two most frequently cited reasons are; to reduce tension, to remove things that keep the head busy and to make people feel in a mood they want to be in. In the same research, Gantz et al. (1978) also explored some of the negative effects attributed to pop music and listed some positive and negative effects that pop music can promote and participants rated their degree of involvement with them. As a result, the vast majority of participants agreed that pop music encourages people to be more sympathetic and collaborative and play a musical instrument. Besides, among the other effects there were "undesired actions" such promoting sexual relations, promoting authority to rebellion, corrupting moral values, participants only agreed upon that pop music encourages sexual relations.

In another study similar to that of Gantz et al. (1978) researchers investigated the influence of the factors such as melody, rhythm, harmony, instruments, mood, lyrics, singer or group, peer influence, hearing it on the radio and dance ability on the pop music preferences of young people. Most of the participants demonstrated that their preference of pop music was influenced by factors such as melody, mood, rhythm and lyrics. Besides, peer influence was the least cited factor. The researchers, on the other hand, were predicting that this factor would be more influential. The researchers think that the majority of the participants of the

study who are secondary school and college students are reluctant to admit the effect of peer influence on their pop music preference (Boyle, Hosterman & Ramsey, 1981). When we approach pop music from a technical perspective, it becomes more difficult to characterize pop music with the instruments, tone or harmonic features since it is mostly about sociology.

2.8.2. Rock. Although it is a little difficult to define it in a way free from all defects, the most common sense of the definition of rock music is that it is a type of music with hard beats. From a musical point of view, rock music can be thought to be an eclectic style. It was born of a mix of country and blues styles, and Afro-American music were a big part of this mix (Frith, 2018).

For a long time, rock music has been associated with the electric guitar and exaggerated gestures of the performer (Frith, Straw & Street, 2001). As for the emergence of rock music, Peterson (1990) points to the 1950s. According to Peterson (1950), although political and social events of the period influenced rock music to some extent, the aesthetics and culture of rock music influenced the political and social events of the period more discernibly. Peterson demonstrates the reasons for the rise of rock music at that time as follows: the emergence of creative people like Elvis Presley, the changes in the nature of the audiences, baby boomers and the commercial industry that had developed a number of elements such as recording industry, radio, television broadcasting.

Scaruffi (2003) discusses the adventure of rock music much earlier. According to Scaruffi (2003) this type of music began to develop in the 1890s as an industry and the music companies started to lease offices, the incorporation of music into opera, ballet and drama in the 1910s, and the development of country style, can be seen as the factors that set the stage for the birth of rock music

Regev (1994) ascribed artistic recognition of rock music to three factors as follows;

- It includes serious meanings and truthfulness of aesthetics.

- It is produced by a creative entity.

- That creative entity creates works only for its own sake without a profit.

2.8.3 Classical Music. The phrase "classical music" can be thought to be a bit controversial. Because the word classical ascribes universality to it, this prevents it to belong to a specific place and time. On the other hand, it is claimed that classical music is very far away from being within daily life. Musicologists regard classical music as the music of the end of the 17th century and the early 18th century (Beethoven, Mozart), although many people label a historical music piece without using an amplifier as classical (Johnson, 2002). In terms of orchestration, piano, woodwinds, string instruments such as violin, brass instruments like trumpets and trombones are among the popular instruments in classical music.

2.8.4. Jazz. Jazz is often associated with creativity because it is a type of music that talented musicians with artistic experience produce new things collectively. In order to illustrate the organizational structure of Jazz, Bastian and Hostager (1998) emphasizes two important points:

- Jazz is spontaneous, creative, outgoing. It conveys the desired emotion and behavior based on creativity.

- Jazz is a social process. It contributes to bringing individual musicians together to produce a common work.

When we deal in the orchestration, we can say that jazz musicians use wind instruments much more frequently than other genres. Other instruments used widely are bass, piano, and percussion instruments. We can also classify these instruments as soloist and accompaniment instruments according to their usage patterns. Solo instruments are more in the spotlight and more suitable for improvisation. If a wind instrument is a soloist and makes improvisation, other instruments cannot take the role (Giddins & DeVeaux, 2009).

With respect to the cultural background of jazz, Johnson (2003) asserts that jazz, variously seen as folk, popular and art music has moved back and forth across high and low cultures regardless of its geographical origins. Moreover, According to Johnson (2003), in terms of structural coherence, harmony, background-foreground, jazz demolished the arbitration Eurocentric musical value which was highly concentrated on the terms musical text and context.

2.8.5. Rap. Rap is a genre which pays little attention to the melody and rhythm of the song or the timbre of the vocals. Unlike other genres such as classical or jazz the main focus in the world of rap is the lyrics. As for the content of the lyrics, any situation or idea can be a theme for a rap song. Besides, most of the rappers prefer to mention about real life rather than fiction (Edward, 2009).

Although there is a misunderstanding that sees rap and hip hop as synonyms, hip hop is a term that comprises of many other cultural elements such as beatboxing, break dancing, graffiti, street language, whereas rap is just a genre of music and among those cultural elements of hip-hop (Pate, 2009)

2.8.6. Funk. Vincent (2014) describes the funk in an appropriate way with reference to its lively and dynamic nature;

> "Funk is a many splendored thing. Funk is a nasty vibe, and a sweet sexy
> feeling; Funk is *funkiness,* a natural release of the essence within. Funk is a
> high, but it is also down at the bottom, the low-down earthy essence, the bass
> elements. Funk is at the extremes of release of the essence within. Funk is at
> the extremes of everything. Funk is hot, but funk can be cool. Funk is
> primitive, yet funk can be sophisticated. Funk is a way out, and a way in. Funk
> is all over the place. Funk is a means of release that cannot be denied"
> (Vincent, 2014, p.3)

Funk which is also known as "party music" is a form of dance music became popular in the 1970s. The ones who contribute to the popularization of this genre are rhythm, blues and jazz musicians as self-contained groups. Funk includes elements from many different genres such as blues styled horn arrangements, jazz oriented solos, rock oriented solos and soul styled singing. As for the emotions evoked by the genre, optimism, ambivalence, disillusionment and despair are reflected in lyric themes such as party, social and political commentary, romance and social relationships which can be thought to define the complex nature of funk (Maultsby 2014).

2.8.7. Reggae. In reggae, rhythmic interplay of instruments is quite sophisticated and complex. Rhythm guitar serves as an important constituent of an upbeat background which is accentuated with keyboard phrasing that gives a gummy, sticky quality to the music. The bass guitar has an increasingly rhythmic, almost drum-like function. Vocal says the phrases and pauses for the effect of it. This type of use of pauses and rests in company with the omission of whole bars, highlights the underlying percussions and polyrhythmic instrumentation of the music (Jones, 1988).

2.9. Music and Language

How can music be seen like a language? Music can be thought to have a semantic aspect. Voices in music can sometimes be a symbol of a thought or a place. At the same time, there is a syntactic aspect of music. Instrumental music has a very systematic sequence including, ideas and phrases. There is also an emotional aspect of music with the differences in sound and tone of the instrumental music. In short, not only does music represent something, but it also tells what it means. In this respect, music may be seen as a speaker who is very talented at self-expression but lack of symbols to mean (Freedman, 2003).

The relationship between music and language continues to be the focal point of researchers. Upon the link between the two, basically it can be asserted that both language and

music are a cognitive phenomenon in which different items are organized in a hierarchical structure (Patel, 2003). Jackendoff (2008) lists the cognitive similarities of music and language in the following way;

- Music as well as language needs a memory capacity to store countless symbols.

- Both music and language bring these symbols stored together in order to make sense of a new stimulus in accordance with a structural schema.

- They both create an expectation for the next thing to come.

- Producing both requires a skill to provide control of the sound production.

- Imitation is also needed to learn how to produce sound in both.

- In both music and language, at least a few people are expected to introduce something new so that others can imitate them.

- In both one must have the ability to engage in situations that require people to participate.

Mora (2000), as well as Jackendoff (2008), emphasizes the similarity between music and language. According to Mora (2000), both originate from the processing of sounds, and both are used by its author to transmit a message. In addition, Mora (2000), reflects that music shares some other characteristics with language such as; voice, pitch, stress, tone, rhythm, pauses. .

2.10. The use of music in language classroom

To underline the positive effects of using music in language classrooms, Paquette and Rieg (2008) take the issue from affective, cognitive and linguistic perspectives. With reference to Stephen Krashen's (1982) affective filter hypothesis, they state that because of the casual learning environment used when singing, songs are one method for achieving a weak affective filter and promoting language learning. Cognitively, songs present opportunities for developing automaticity in the language process. Because they have a

repetitive nature, many children's songs help the language learners to acquire new words and phrases. From the linguistic perspective, Paquette and Rieg (2008) emphasize that listening to songs help learners to get familiar with the genuine language as most of them include vernacular language.

Bartle (1962), who reflects that the influence of music on the memorization of phrasal structures cannot be underseen, asserts that memorizing some vocabulary groups have become easier to learn with songs and become more reminiscent than superficial grammatical examples. Claerr and Gargan (1984) approaches usage of songs in language learning from different aspects such as culture, listening comprehension, linguistic aspects, literary analysis, communicative activities and affection as follows;

Culture: The image of a culture can be formed by the songs of that culture. Songs may contain historical elements, daily habits, and important days of that culture. Students may acquire those cultural figures with the help of songs.

Listening and comprehension: Songs can be seen as exaggerated speech. They are advantageous in terms of listening because they usually offer a meaningful context as well.

Linguistic aspects: If a language is intended to teach a specific element, such as a new word or phrase, the repetitive structure of the songs can facilitate.

Literary analysis: Poems, cries, short stories, comedies are all compatible with music. In this way the student can obtain literary elements of that language.

Communicative activities: Many songs have a story. It is a natural stimulus to talk upon because it has strong personal feelings. We can promote discussions among students on the song.

Emotional aspects: We can evoke the emotions that decrease anxiety and encourage the agreement.

Lems (2001) thinks similar to Claerr and Gargan (1984) about the benefits of music to acquisition of target culture in language teaching. According to Lems (2001), the songs are a rich source of human relationships, ethics, history, regional and cultural differences, and thus they can be used while learners are sharing opinions about cultures. Similarly, Failoni (1993) reflects that music is a way of promoting student awareness of a different culture. According to Failoni (1993), in addition to the history, literature of a country, we can also get knowledge about other societies in that country through the different dialects of a language in songs

Eken (1996) orders some of the reasons of using music in language classroom as follows;

- to present a topic, a language point, lexis, etc.

- to practice a language point, lexis, etc.

- to focus on common learner errors in a more indirect way

- to encourage extensive and intensive listening

- to stimulate discussion of attitudes and feelings

- to encourage creativity and use of imagination

- to provide a relaxed classroom atmosphere

- to bring variety and fun to teaching and learning (p.46).

Yang (2011) asserts that music can improve learners' listening, speaking, reading and writing skills. According to Yang (2011) one popular exercise students often use is to scramble lyrics and then fill them in blanks when listening to songs which can improve listening skill and lyrics are good way of introducing cultural knowledge and magazines on music are good reading material to motivate students. As for writing, Yang (2011) thinks that writing in a music journal can be an effective way to improve learners' accuracy in writing and students are more willing to practice pronunciation through songs which can contribute to improve speaking skill.

In addition to all these positive aspects mentioned above, there are a few limitations to the use of music during the course. The teacher has to choose the right music that is compatible with the course procedure. Some songs may not be compatible with the target subject. For example; a child song "Jack be nimble" may not be useful when teaching "to be" verb (Millington, 2011). According to Millington (2011) teachers should have a broad repertoire of songs in accordance with the variety of students in the classroom.

Although there is a general consensus that singing is beneficial in memorizing verbal items, Racette and Peretz's (2007) research reveals surprising results. Racette and Peretz (2007), in the study on 36 university students, has a French soloist singing a French song which is unfamiliar to participants in a melodic way.. Later, the same soloists recite the lyrics in a non-melodic way. These recordings are played to the students. Students are asked to listen to the songs and accompany the songs by following the lyrics. In the same way; students, listen to the speech version and accompany the recording. As a result of the research, the recall of verbal items in the recordings are measured, and according to Racette and Peretz 's (2007) reflection, let alone recalling the words, singing interferes with recalling. Though words are spoken more slowly, they recall fewer words than they recite the lyrics when they sing the lyrics.

Jancke and Sandman (2010) found out that background music has no significant effect on verbal memory as a result of his study on 77 participants in Zurich. In the study, participants who had been determined not to receive any musical training in advance were subjected to an intelligence test and there were no significant differences between them. Participants were divided into 5 different groups and in tune fast, in tune slow, out of tune fast and out of tune slow music were played during a verbal memory test conducted. One group was just exposed to usual environmental noise. As a result of the study no significant difference was observed between groups.

2.10.1. How music should be integrated into the classroom. Now that we have laid stress on the benefits of using music in language teaching, we can approach the topic from a different perspective and seek answer for the question "What considerations should be taken into account in the use of music in the classroom?" Abrate (1983) discusses the question in a very short and clear way and orders the three points that should be considered when using music in language teaching in the following way: 1) the ability of the student, 2) the musicality of the song, 3) the speed of the song. According to Abrate (1983), a teacher should pay attention to the proficiency level of a student when he/she is going to conduct a song. At the same time, musicality of a song is also very important. While words can be easily recognized in the tracks accompanied by the guitar solely, vocal may not be easily distinguishable in the pieces accompanied by a crowded orchestra. Finally, Abrate (1983) reflects that it would not make sense to use fast songs in gap filling activities.

After a 19-month study of 80 kindergarten students, Fisher (2001) reflects that the most important finding of the study is the fact that the music should be included in the course in accordance with the curriculum already being conducted. According to Fisher (2001), music should be selected according to the linguistic element or the theme followed during the course, and in a sense it should be a focusing element, not a distant distraction.

2.10.2. Music and Recall. Since it is one of the important components of language learning, it is worth mentioning the effect of music on recall. Long before the written language was established, the songs were a common way of conveying a message to the other party. There is a widespread conviction that people keep a melody in memory for much longer and then recall more easily. For example, all over the world, the English alphabet is learned by singing the melody called "Twinkle Twinkle Little Star". In addition, when information is presented with a melody, it is stuck into our minds and we remember certain phrases after a long while (Bon Joo, 2015).

If we approach the subject from a medical point of view, the studies on the effect of music on recall were conducted by many researchers related to diseases such as multiple sclerosis and Alzheimer (Moussard, Bigand, Belleville & Peretz, 2012; Moore, Peterson, O'Shea, McIntosh, & Thaut, 2008; Simmons-Stern, Budson, & Ally, 2010). In the study Simmons-Stern, Budson and Ally (2010) conducted; lyrics of some children songs which were unfamiliar to the patients were presented with either a sung or a spoken recording. As a result of the study, it was found out that patients with Alzheimer disease showed better recognition accuracy when lyrics were presented with a sung recording.

Webb and Speelman (2008) conducted an empirical research on 100 participants in order to determine whether a text is recalled more frequently when it is presented with a melody or not and his analysis showed that familiarity of a melody facilitates recalling. Besides, rhythm is an important factor as it serves a schematic frame to which text can be attached.

Contrary to the general belief that music facilitates recalling, Sims (2008) came to the conclusion that the effect of melody on recall is not significant. In the study Sims (2008) conducted with 128 participants, 24 sentences were presented to the participants as "fast spoken-slow spoken -fast sung-slow sung". Following that, a recall test was carried out and the sentences they heard were presented to them as incomplete and they were asked to complete them. As a result of the study, the highest recall rate was obtained when the sentences were spoken slowly. Sims (2008) ascribed the results which contradict with the popular belief to less frequency of the mnemonic device because differently from the previous studies, text was repeated twice.

Chan, Ho, and Cheung, (1998) aimed to provide empirical data that verbal memory of the people with musical training is more developed than non-musicians as left temporal lobe mediates the verbal memory. As a result of the study, they found out that participants with

musical training learned significantly more words than those without any musical training. Taking this finding into consideration, they also claimed that engaging children with playing musical instruments can be easier than teaching with mnemonic strategies.

   2.10.3. Music in teaching vocabulary. Because of the very nature of languages, language learning cannot be considered independently of vocabulary knowledge. According to Anderson and Freebody (1981) to get a highly accurate prediction of a learners' ability to comprehend discourse, an assessment of the number of the words they know can be enough. Similarly, Ricketts, Nation and Bishop (2007) think that that vocabulary plays an important role in the development of reading comprehension ability. It is an undeniable fact that all language learners feel a need to know the meanings of unknown words of a text to fully grasp it. The same also applies for the other language skills. Milton (2013) asserts that factors like large vocabulary size, speed and depth of vocabulary knowledge are indispensable to the development of good performance in four language skills. Since vocabulary development is one of the key components of language learning, it has been of interest to researchers in the field of language teaching and a plethora of research has been conducted over the years in an attempt to develop the most effective ways of teaching vocabulary and considerable amount of those studies focused on the effects of music on vocabulary learning (Abbott, 2002; Bygrave, 1995; Chesley, 2011; Li & Brand, 2009; Medina, 1990; Shehadeh & Farrah, 2016; Siskova, 2008). These studies approached vocabulary acquisition from different perspectives such as impact of song and non-song vocabulary instructions (Akbarpour & Roohani, 2015), case of gender in the effects of music on vocabulary acquisition (Alipour, Gorjian & Zafari, 2012), the effects of music in enhancing vocabulary development in preschool children (Coyle & Gómez Gracia, 2014).

   However, as for the question "What type of music?" to be used in vocabulary activities, it is rarely mentioned. Nevertheless, there are some studies focused on a specific

music genre. For instance; Chesley (2011) carried on a study about the possibility of learning African-American English vocabulary through listening to hip-hop music. In the study, firstly Non-African participants gave free responses to the definitions of African-American English vocabulary. After, their social affiliations, musical preferences and knowledge of popular culture were taken to get an idea about their exposure to the hip-hop music. It was observed that there is a strong positive correlation between the number of the hip-hop artists they know and the meanings of the African-American English words they answered correctly. In another study, asserting that pop music is an efficient source of vocabulary learning since teenagers often spend long hours listening to pop music, Shakerian, Rezaei, Murnani and Moeinmanesh, (2016) investigated the role of pop songs on vocabulary learning with 60 participants divided into two groups as music and non-music. Music group chose 60 pop songs with a questionnaire and learned the new vocabulary through the songs, while the non-music group was taught the new vocabulary without listening to music. The results demonstrated that the musical group was better than the non-musical group at vocabulary recall and retention. Similar studies with the same findings were conducted with jazz music (Akagi, 2016).

However, none of these studies compared the efficiency of different genres. This can be the reason for the fact that while choosing songs to use in classroom activities to teach vocabulary, teachers often pay attention to the songs' likeability, understandability or moral appropriateness rather than genre of the music and its effect on an individual's psychology and retention.

2.11. Involuntary Mental Rehearsal

Involuntary Mental Rehearsal which is later turned out to be experienced frequently by second language learners described by Barber (1980) (as cited in Krashen, 1983, p.41) in her self-reported anecdotal in the following way;

I spent last fall travelling in a dozen countries, mostly in Eastern Europe. Since I was working rather than touring, I had to communicate in any language I could. I had studied Russian ten years ago and had read it some since, but I had never spoken it so much; I had learned modern Greek by travelling one summer in the backwoods of Greece, with some help from my classical Greek, but I had never read it and had not used it at all in the intervening seventeen years. French, which I had learned in a French schoolyard at age twelve and had studied in high school, and German, which I had studied one summer by correspondence, were more immediately serviceable: I had read and spoken both from time to time.

It turned out that the curators I was working with at the Hermitage in Leningrad spoke nothing but Russian. The first day I was tongue-tied, but by the third, I was getting along well enough. That is, we were managing to get the information back and forth and to enjoy one another's acquaintance, even though I was acutely aware that I was making grammatical errors everywhere. But it was either that or hopelessly stall the conversation and the work. Any self-respecting adjective in Russian gives you on the order of forty possible categories of form to choose from, according to case, number, gender and animacy, not to mention long and short forms and declension classes. If you have to dive into this labyrinth to select a form consciously, you find when you surface proudly with your hard won morpheme that the conversation is ten miles down the road. Either that or your interlocutor is sound asleep. Social pacing turns out to be more important than grammatical correctness, even in a scientific conversation.

By the third day also, the linguist in me was noticing a rising din of Russian in my head; words, sounds, intonations, phrases all swimming about in the voices of the people I talked with. This din blocked out all my other languages to a degree

inversely proportional to how well I knew them. Many times on the trip, after a few days of a given language, regardless of what I was trying to talk at the moment - except English, of course. And interestingly, French. I had learned my basic French as a child, by child's methods, and I have always retained the ability to switch in and out of it cleanly at a moment's notice. And whereas German was difficult to switch to, Spanish, my most recent language was hopeless…

 The sounds in my head became so intense after five days that I found myself chewing on them, like so much linguistic cud, to the rhythm of my own footsteps as I walked the streets and museums. Whenever I noticed this din, the linguist in me would demand to know what I was saying. Half the time I had to look what I was saying up, or somehow reconstruct what it meant form the context in which I had heard it hours or days earlier. The constant rehearsal of these phrases of course was making it easier and easier to speak quickly and quickly; things popped out as prefabricated chunks. But I had no control over what my subconscious fed into my "chewer" each day. It fed me what it considered to be memorable - usually from a surprising or stressful or isolated incident - not what I considered maximally useful. Nonetheless, my overall command of Russian improved more in a single week than it would have in a month or two of intensive reading (as cited in Krashen, 1983, p.41).

Krashen (1983) adds one of his experiences in which he participates in a conference whose language is both English and German. He states that being a German shy, for the first day he was not eager to speak in German since he had not been speaking German for years. Next day he starts to speak German gradually. After he leaves the conference for a flight to San Fransisco, he has a din of German at the plane, which wears off later on.

Krashen (1983) take this experience from a theoretical perspective and with reference to his second language acquisition theory he presents "the din hypothesis" which he claims to be a result of stimulating of language acquisition device. His hypothesis has two corollaries as follows;

- To experience din, comprehensible input is needed.

- Din is set off when the input contains enough quantity of acquirer's i+1..

Krashen (1983) also makes the following assumptions on the din hypothesis;

- It takes a certain amount of time, at least one to two hours of input, for the din to start up.

- The din seems to wear off after a few days.

- The din will not occur after output practice without input.

As the cases mentioned above are anecdotal, a need for empirical research arose. Bedford (1985) conducted a survey to provide the hypothesis with data from 160 participants. The survey was designed to answer the questions like "Is it a result of comprehensible input?" or "do advanced learners experience it or not?" or "How much time of exposure to the language is needed for the din to occur?" As a result of this survey, three conclusions were made as follows; 1) The din phenomenon is not limited to a few individuals but it is a common phenomenon that language learners experience to some degree, 2) The data gathered supports the predictions of Monitor theory Krashen (1983) put forward and 3) A variety of classroom activities triggers the din and 50 minute class period is long enough to cause students have involuntary mental rehearsal of the target language. Moreover, Bedford (1985) found out that involuntary mental rehearsal was experienced more frequently after aural comprehensible input (conversations in class, classroom drills) and after listening second language rather than the grammar study and the din phenomenon is not relevant to variables like age, sex or aptitude.

Bedford's (1985) findings presented the first empirical data about the hypothesis. Later on, in order to enlarge the database to test Krashen's (1983) din hypothesis, a few more studies was carried on. Krashen and Parr (1986) conducted a study with the intention of gathering additional evidence concerning the extend of involuntary rehearsal with 509 students from a high school and a university in California who are learning Spanish as a second language. Participants were given a copy of Barber's description of "The din in the head". Thereafter, the question "have you ever experienced the din in the head?" was asked. Result was not unlike the Bedford's (1985) findings. 78 percent of high school students and 69 percent of university students declared that they experienced the din. In the same study, Krashen and Parr (1985) conducted another study to find out whether advanced learners experience the din or not. Participants were graduate students and all of them was currently teaching the second language in the high school or college level which is presented as a reference for their being advanced learners. In the study, differently from the previous ones, subjects were interviewed individually and the same question asked orally. The result was consistent with their predictions. 90 percent of the subjects reported that they didn't experience the din.

Guerrero (1987) conducted the translation of the same questionnaire with a few minor changes on 52 Puerto Rican students. As a result, 79 percent of the participants said they experienced the din, sometimes, often and always. As for the nature of the din, whether it is triggered by comprehensible input or not, students were asked to say which language learning activities precedes the din among the options like "After studying grammar in class", "after doing drills in class", "after listening to English that I could understand", "after practicing conversation in the classroom". As a result, it was concluded that comprehensible input was more important over grammar and drill practices as the kind of input which triggers the din. Moreover, Guerrero (1987) found out that 70 percent of participants experience the din with

low anxiety level which was consistent with Stephen Krashen's (1983) prediction that involuntary mental rehearsal is a result of stimulation of LAD and LAD is activated with low anxiety level. As for the time duration needed for the din to start up, participants reported that an hour or less is enough for them to experience the din, whereas Krashen's (1983) prediction was that at least an hour or more exposure to second language was needed.

Earlier studies mostly conducted with high school or university students. Afterwards, whether elementary school students experience involuntary mental rehearsal or not became an object of interest to researchers. Sevilla (1996) conducted a study with children aged 8-12. As Barber's description of the din is too difficult to be read or explained to children, she made a story based upon Barber's descriptions and told the story to the children. After listening to the story, she asked the children if they had the same experience. 57 percent of the students reported that they had it. According to Sevilla (1996), the most interesting finding of the interviews was that children who had experienced the din were nodding their head in affirmation of the story and many other children did not wait until the end of the story to report that they experienced the din.

McQuillan and Rodrigo (1995) approach the hypothesis from a different perspective. On the contrary of the previous studies which noted that involuntary mental rehearsal was frequently triggered by aural comprehensible input, he conducted a study aimed to present empirical data to support the idea that reading activities can stimulate the din. In the study, two groups of language learners participated as reading group and reading-conversation group. First group attended the reading activities including children, adolescents and self-selected books while the other group both attended in conversation classes and reading activities. Bedford's (1985) survey was adapted and conducted with the participants. As a result, 80 percent of participants in both groups reported experiencing involuntary mental rehearsal which was consistent with McQuillan and Rodrigo (1995)'s prediction that there is

no difference between aural and reading activities in terms of activating the mechanism of the din.

2.15. The Din and Music

Having discussed the mnemonic effect of music and its intrusive nature and having a din in the head involuntarily, researchers started to form an association between the two and seek for empirical data for it. Salcedo (2002) conducted a study with 94 students with a mean age of 22 who are learning Spanish as a second language in America. The main purpose of the study was investigating the efficacy of songs in text recall of language learners. Therefore, she used two treatment groups as song group which listened to a commercially recorded song and text group which listened to its spoken lyrics. After six treatments conducted in one semester, it was observed that song group recalled significantly more words than text group. Besides, Salcedo (2002) gave a post treatment questionnaire reporting the occurrence or involuntary mental rehearsal. Results offered strong evidence to conclude that there is a considerable difference between the groups when comparing the frequency of having the din. In the song group, 66 percent of the students reported experiencing the din; whereas only 33 percent of the text class reported having it.

Höfler (2013) designed a study to investigate the din phenomenon which is based upon Salcedo's (2002) research to a large extent. She presented a text through a song and a spoken recording. At the end of the recalling experiments she gathered self-reported data from the participants in order to see if involuntary mental rehearsal is relevant with music. As a result, it was revealed that the song triggered more often and frequently a din experience than a text. Differently from Salcedo's (2002), Höfler's (2013) study revealed a few other empirical data. She found out that, more female students than male students reported on the din experience and, there was a positive correlation between the experience of the din and delayed recall performances.

2.16. The Din and The SSIMH

Having dealt with Krashen's (1983) hypotheses concerning the din to the core, Murphey (1990) realized that there is a similarity between the din and the notion that he called "Song Stuck in My Head" phenomenon which he described as experiencing the songs dinning through the head. He states that;

> Upon reading the articles concerned with the din, I immediately saw a similarity with what I call the song stuck in my head (SSIMHP) phenomenon. Having personally experienced songs dinning through my head many times, usually audition followed by relative quiet (as with the last song you hear when leaving your home, car, or a restaurant), I was interested first of all in finding out if SSIMHP was widespread (Murphey, 1990, p.58)

In his hypothesis raising article (Murphey, 1990) he mentions about a pilot questionnaire he gave to 49 students to gather empirical evidence for SSIMH phenomenon. Results showed that all of the students reported experiencing the din except two who are at the very beginning of language learning. He discusses the connection between the SSIMH and involuntary mental rehearsal by pointing the following differences;

- While Krashen (1983) hypothesized that the din is only provoked by comprehensible input, this is not required in SSIMH phenomenon. A song can stick in one's mind even though the person doesn't understand its meaning. Murphey (1990) reported singing French and Spanish songs when he was a child without knowing the meaning of the song.
- Corollary two of the din which asserts that the target input should be beyond the acquirer's current information level to a slight extent is inapplicable for the SSIMH phenomenon

- SSIMH phenomenon is experienced regardless of people's being advanced or not, whereas Krashen (1983) hypothesized that advanced learners do not experience the din.

- While the din is assumed to start up with one or two hours of exposure to the target language by Krashen (1983), even a few minutes of listening could be enough for one song to stick in our minds and din whole day long.

Although these two terms have similarities, present study will focus on the notion of the din which is more concordant with the research design.

Chapter 3

Methodology

In this chapter the design and methodology of the present research is introduced. Firstly, research design will be presented in brief. Next, information related to the participants, materials used and data collection procedures will be mentioned. Finally, data analysis procedure will be introduced.

3.1. Research Design

As the main purpose of the study was to see if there was a significant difference between the musical genres in terms of enhancing the text recall and triggering the din, research was designed in accordance with this aim.

With its quasi-experimental design, the present study data for the research was collected via a cloze test, background questionnaire and an open-ended questionnaire. While background information questionnaire was designed to get quantitative data with the purpose of gathering information about the musical taste of participants, post treatment tests provided qualitative data with the intent of the deciphering the reasons underlying the outputs of the research.

Design of the present research was closely oriented to Saljedo (2002) and Höfler (2013) in terms of studying the effect of music on text recall of learners and the din. In parallel with these two studies, the present study included a pre-test to see the probability of students' inferring the missing word from the context regardless of recalling the text, texts were introduced both in the form of songs and speech and their recalling ability was evaluated with a cloze test and whether they experienced the din or not was reported via a post treatment test. What makes this study slightly different from the others was that the present study was the only one answering the question; "Which music?" and approach the issue from a more musical perspective.

3.2. Participants

112 students in Velibaba Multi-Program Anatolian High School in İstanbul participated in the study. Participants aged 14-16 were all elementary level learners of English. As the placement system of the current education policy requires, students were placed in this school according to their habitation regardless of their success in a placement test and they were randomly assigned to the classes. Participants were all ninth graders from four different classes which varied in size. The three of them constituted the experimental groups; Group A (28), Group B (26), Group C (28), while Group D was the control group (30) for the present study.

The district that participants live in is in the east of İstanbul and highly considered to be a conservative settlement. Though different musical genres easily get through different places with the help of technology and social media platforms, a need seems to arise for mentioning the fact that the families are overprotective in this neighbourhood which is one of the main factors they prefer this all girls high school.

All of the participants had studied in a state school and learnt English according to the state curriculum. None of the participants had taken extra courses from different language schools.

When the music preferences of the participants was taken into consideration it was observed that most popular genres among the participants were pop, rock and hip hop. All participants in Group A (rock group) marked pop and %57 of them marked hip hop. Rock music was found out to be the favourite genre of %71 of the participants. In Group A, %7 reported listening to jazz music. Among the participants In Group B (jazz group), the most popular genres were pop music with the %96 and hip hop with the 69 percentage. %57 of students marked rock music, whereas only %3 of them reported listening to punk music. Not a

single participant was found to listen to reggae and jazz. In the same order, mostly listened

genres were pop, hip hop and rock for the participants in Group C (reggae group) with %92 %

67 and %64. Only %3 marked reggae option. %90 of the participants in group D reported

listening pop music. Other popular genres were hip-hop with 66 and rock with 63 percentages

among the participants in Group D (spoken group). Figure 1 shows the music preferences of

the participants in four groups.

Figure 1

Percentages of music preferences of groups
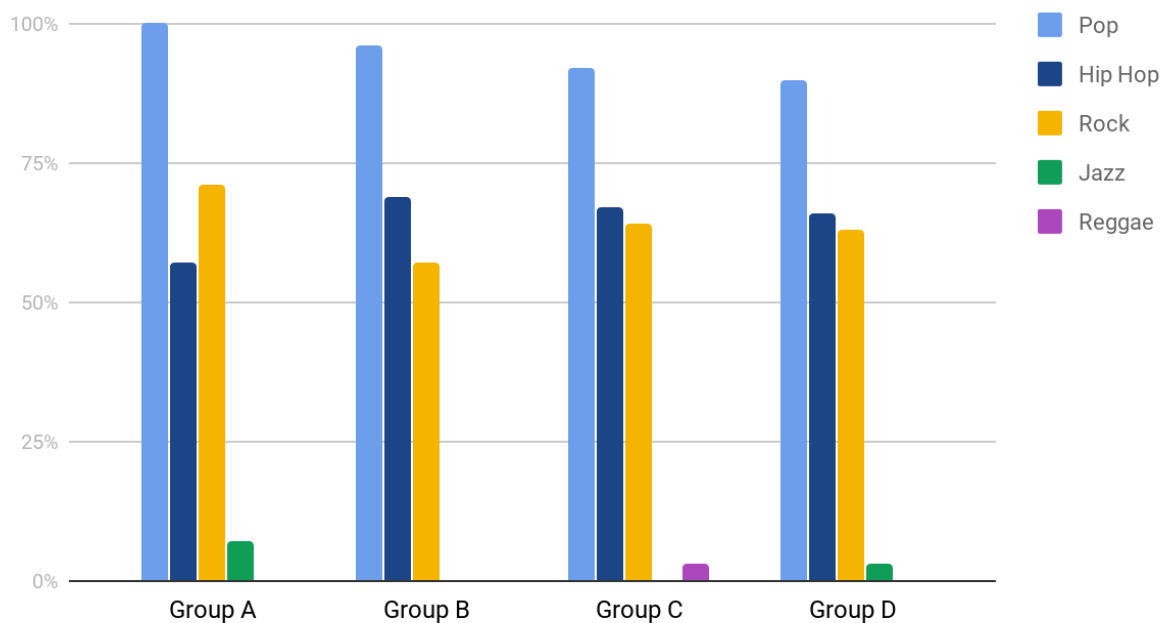
All participants reported listening to pop, hip-hop and rock more frequently than the

other genres. Figure 2 shows the percentages of musical genres listened by all participants.

Figure 2

Percentages of the Music Preferences

Music Preferences of Participants
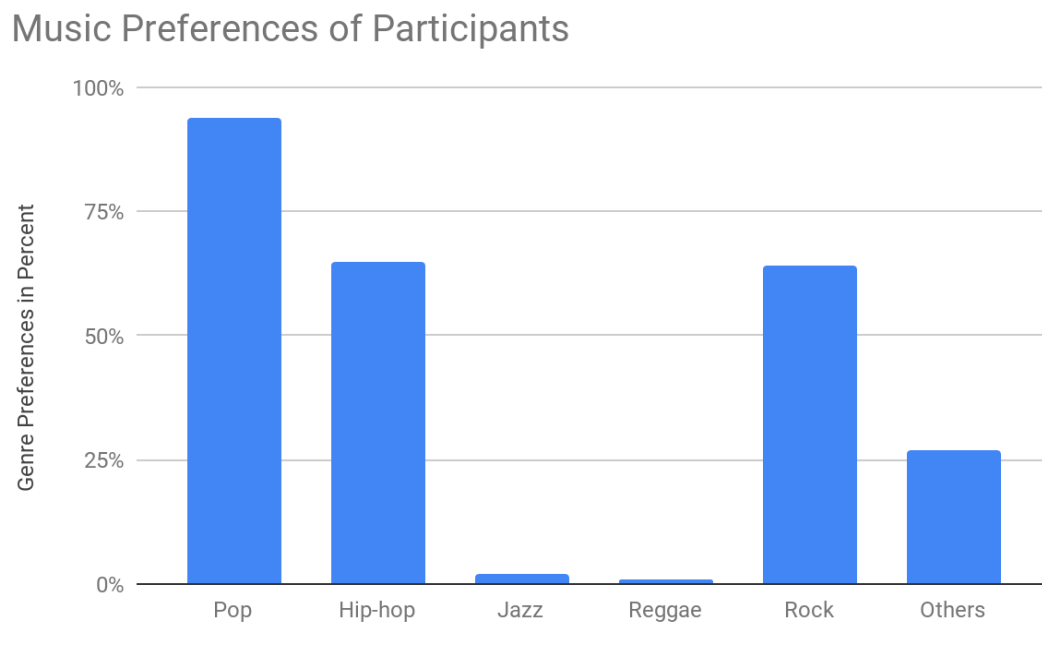
3.3. Instruments

Background information about the participants was collected by a questionnaire designed by the researcher. In this questionnaire, participants were asked to report three genres which are close to them. Moreover, they were asked to choose the instruments they mostly hear in the songs they listened to and write the names of their ten favourite songs. By this questionnaire, it is aimed to get data about the musical taste of the participants in general.

The song "Creep" by the English rock band "Radiohead" was chosen to be used in the study. The main reasons for this song to be chosen were its having a simple context so that it could be compatible with the corollary of the Krashen's (1983) din theory which asserts that there must be meaningful input for din to be triggered and its repetitive chord progression of G, B, C, Cm which made it easy to adapt into other genres. Rock, jazz and reggae versions of

the songs which were sung with the same lyrics order were used in the study. The songs were played in the interactive flat panels in the classroom which have the same sound quality.

A cloze test was designed by the researcher to test the text recall of the participants. In this cloze test 10 words were deleted from the lyrics of the song. While choosing the words to delete, it was paid attention that they cannot be inferred from the context or repeated somewhere else in the text was regarded. Thus, words were chosen among the verses but not from chorus. Post treatment test which aims to get information on the din experience was adapted from Salcedo's (2002) study which consists of six open ended questions.

3.4. Procedure

Participants were divided into four groups. Group A was the rock class, group B was the jazz class, group C was the reggae class and group D was the spoken class. Study was conducted during English classes according to the school timetable and each group was treated by its own English teacher in order to avoid an extra motivation or demotivation because of the change of instructors. Participants were informed that the procedure was part of a scientific research; however they were not given information that the purpose was to compare the effect of genres on text recall.

Firstly, the questionnaire which had been designed to gather data about the musical tastes of the participants was given to participants. Next, the lyrics of the song were given in the form of a cloze test as a pre-test in order to check whether the missing words could be inferred from the context of the song or not. At the same time, whether they were familiar with the song or not would be learned by this way. After the pre-test was applied, handouts of the lyrics were given to students. Later, unknown words were written on the board and lyrics were translated in order to make the lyrics a bit more comprehensible. Next, songs were played and participants were asked to follow the lyrics and were informed that they can accompany if they like.

Two weeks later, the lyrics of the songs were given in the form of a cloze test and participants were asked to fill in the blanks with the missing words. After the post-test, a questionnaire about their opinions about the music played during the lesson and din experience were given to students. As the application of these tests coincided with their examination dates, none of the participants were absent from school and same students participated in the whole study.

Figure 3

Main Steps in the Process of the Study

Pre-Test	Treatment	Post-Test	Delayed Post Test	Post Treatment Test
Firsty, lyrics of the song were given in the form of a cloze test in order to ensure that song was unfamiliar to all students to the same extent and words for the blanks were not presumable.	After the cloze test form of the lyrics were collected, the whole lyrics were given in the form of hand-out. They were read and translated together. Next, they were played/read three times.	Immediately after the treatment, cloze-tests were given again and students were asked to fill in the blanks with the missing items.	After a two week gap, same cloze tests were given again and they were asked to fill the blanks with the items they recalled.	After the treatment, students were given a form and they were asked to answer the questions and report din experiences.

The whole procedure was controlled by the researcher. Other instructors were informed about the procedure of the treatment and the process was completed under the researcher's supervision.

3.5. Data Analysis

In gap filling tests, previous studies adopted a variety of approaches in terms of counting acceptable answers (Buck, 2001; Höfler, 2013; Saljedo, 2002). Among them, Höfler (2013) ignored any grammatical or orthographic mistakes since she only intended to test text recall. Thus, as long as the missing words were recognizable, Höfler (2013) counted them as correct answers. However, this brought along the borderline cases. In evaluation of the

borderline cases, Höfler (2013) was assisted by a second rater who later agreed upon the choices to be counted as correct.

In the present study, since testing text recall was the preliminary purpose, grammatical and orthographic mistakes are ignored. Researcher consulted a second rater in order to reach a consensus upon the answers to be seen as correct. Second rater who is an English teacher at the same school was informed that the cloze test was designed to test the text recall but not the accuracy and she only evaluated the ones with grammatical and orthographic mistakes and asked to report if she agreed with that the participants recalled the word or not.

Students filled in missing items as they recalled. Tests were scored for total number of correct items and a comparison was made between the different genres and spoken groups. The same procedure was applied for testing the delayed text recall. In the post treatment test section students were asked to respond to questions reporting the occurrence of involuntary mental rehearsal.

An ANOVA test was applied to analyse data gathered on the variables. For the text recall component, the SPSS program performed the Least Significant Difference (LSD) in order to determine the significant difference between the groups more specifically.

Chapter 4

Results

The purpose of the present study was to find out the effects of different musical genres on Turkish EFL learners' text recall and their din experience. In order to achieve the purpose of the study different methods were applied. Cloze tests were analysed by counting the frequencies of the correct items written by the participants. On the other hand, responses to the questions of din reports in the post treatment test were classified as "yes" or "no".

In the light of the data gathered with questionnaires and tests, this chapter will present the statistical analysis of the results. In the first heading, the frequency of the correct items in the cloze tests was presented with the purpose of answering research question 1 and research question 3. Next heading will present the frequency of the correct items in the delayed cloze test in order to answer the research question 2 and research question 4. Finally, results of the post treatments will be given with the intention of answering research questions 5, 6, 7.

4.1. Results of Immediate Text Recall

In order to answer the research question 1, "Is there a significant increase in immediate text recall of elementary level Turkish high school EFL learners when the text is learned through the use of songs compared to those who learned the text through a spoken recording? and research question 3 "Do musical genres differ in terms of enhancing immediate text recall of Turkish high school EFL learners?", firstly cloze tests were given to participants as pre-tests and they were asked to fill in the blanks to see that if they were able to infer the words from the context or they already knew the song. Results of the pre-test showed that neither a single student knows the song nor were they able to infer the missing item from the context.

Treatment was conducted in accordance with an ordinary class procedure in the classrooms. Firstly, handouts of the lyrics were given to the participants. Lyrics were practiced as a reading comprehension passage and they were translated into Turkish.

Subsequently, a different version of the song in each group was played three times and participants were asked to follow the lyrics and informed about that they might accompany if they would wish. For Group D, lyrics of the song which was recorded earlier was played. Finally, cloze test were given and the participants filled in the blanks with as many missing items as they recalled. In the cloze test, without taking grammatical or orthographic mistakes into consideration, number of the correct items was counted in each group. Borderline issues were not counted unless two raters reached a consensus on them. Participants in Group A which was treated with rock version of the song recalled a total of 139 missing items which is equivalent to 49 percent of all the correct items. Group B, which listened to the Jazz version of the song filled the missing parts with 97 correct items and they achieved 37 percent success. Group C which was treated with reggae version recalled 112 words correctly and achieved 40 percent success. Group D which was not treated with music but spoken recording wrote 105 missing items which corresponds to %35 success.

Figure 4

Percentages of the Immediately Recalled Items

Immediate Text Recall
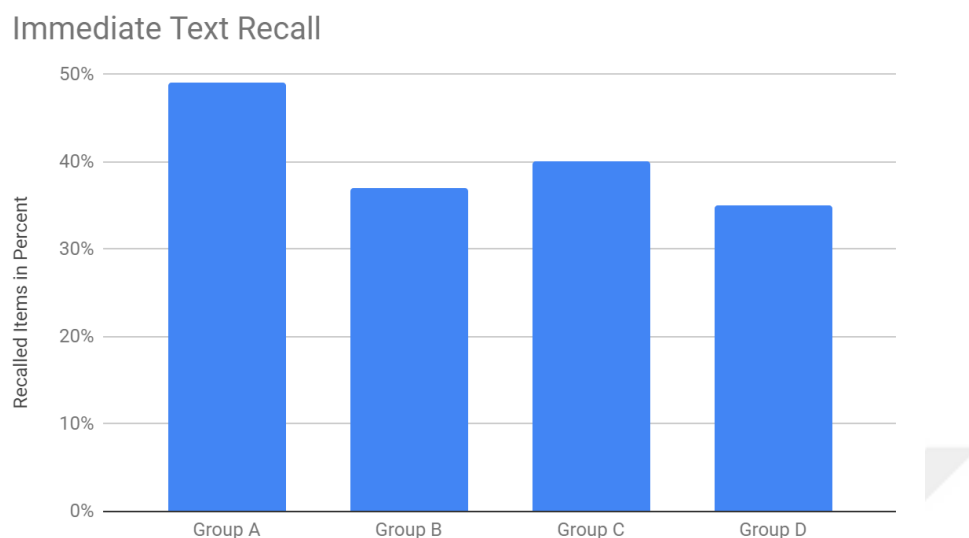
Before deciding on whether performing parametric or non-parametric data analysis methods, One Sample Kolmogorov- Smirnov test was performed. As a result of the test, it was figured out that study requires a parametric test.

After performing the test for normality, One Way ANOVA test was performed in order to see if the difference between the text recall means of the groups was significant or not. As a result of the analysis, there was not a significant effect of music genres on the words recalled at p>.05 level for the four conditions [F(3, 108) = 1,6, p = 0,186]. These findings showed that the researcher failed to reject the idea that there is no correlation between text recall of the learners and the genre of the song they listened to while learning the text. Immediate text recall performances of the groups showed no significant difference.

4.2. Results of Delayed Text Recall

In order to answer the research question 2 "Is there a significant increase in delayed text recall of elementary level Turkish high school EFL learners when the text is learned through the use of songs compared to those who learned the text through a spoken recording?" and research question 4 "Do musical genres differ in terms of enhancing delayed

text recall of Turkish high school EFL learners?" cloze tests were given to participants two weeks later after the treatment and participants were asked to fill in the blanks with the missing items. As estimated, significant decreases were observed in all groups.

Group A scored %25 of all the missing items which means that participants scored 58 answers less than the immediate test. Group B achieved %15 success which corresponds to 39 correct answers. Group C wrote 58 missing items which corresponds to %20 of all. Group D, the spoken group, scored %15 of all the missing items and they recalled 45 items.

Figure 5

Percentages of Recalled Items in Delayed Text Recall Test
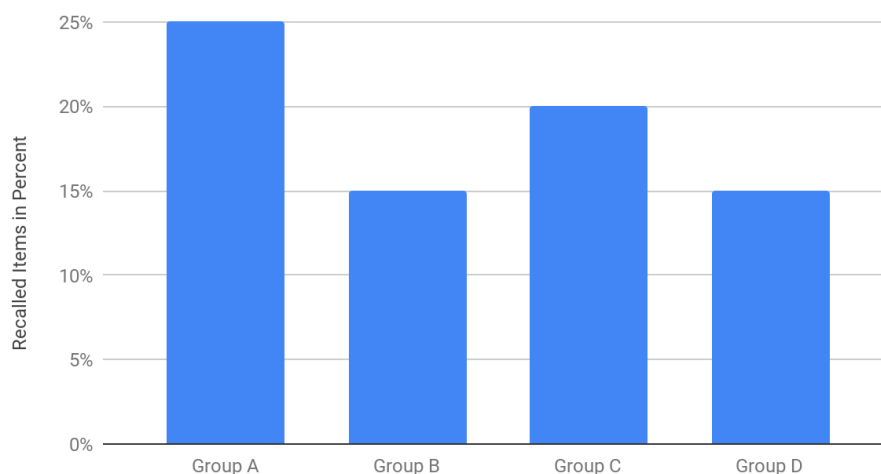
Before analysing the results, in order to see the normality of the distribution, One Sample Kolmogorov-Smirnov test was performed and it was seen that the distribution of data was normal and it required a parametric test;

After the Kolmogorov- Smirnov test, One Way ANOVA was performed to see if there was a significant difference between the delayed text recall performances of four groups. As a result of the analysis, there was a significant effect of music genres on the words recalled in the delayed test at $p<.05$ level for four conditions $[F(3, 108) = 5.,5, p = 0,001]$.

 Table 1

Results from one-way ANOVA on mean delayed recall scores between treatment groups

Source	df	SS	MS	F	P
Between Groups	3	36,455	12,152	5,502	,001
Within Groups	108	238,536	2,209		
Total	111	274,991			

As a result of the LSD test performed subsequent to One Way ANOVA, significant difference was observed between Group A (Rock) and Group D (Spoken). However, no significant difference was found between spoken group and the other genres. Within the genres, p-value for the difference between jazz and rock was 0,001, and it was 0,041 between rock and reggae, both of which showed that there was a significant difference between the means of delayed text recall scores of groups.

Table 2

Results from Least Significant Difference Test on Delayed Text Recall between the treatment groups

| (I) genres	(J) genres	Mean Difference (I-J)	Std. Error	Sig.	95% Confidence Interval	
					Lower Bound	Upper Bound
Rock	Jazz	1,39286[*]	,40476	,001	,5906	2,1952
	Reggae	,82143[*]	,39719	,041	,0341	1,6087
	Spoken	1,39286[*]	,39052	,001	,6188	2,1669

4.3. Results of the Post Treatment Test

Post treatment test was conducted with the aim of answering the research question 5 "What are Turkish High School EFL learners' opinions about the musical genres being used during the lessons?". In the post treatment test, firstly whether participants like the songs or not was asked. The answers were categorized as a yes or no with a second rater. According to the reports, in Group A %75 of the participants reported that they liked the song. This rate remarkably decreased by %30 in Group B, in Group C %53 of participants reported that they liked the song. In group D, the same item was slightly changed and whether they like the text or not was questioned. %53 of the students reported that they liked the text they read.

Research question 6 **"**Do elementary level Turkish EFL learners who learned a text through a song experience a higher and more frequent occurrence of involuntary mental rehearsal when compared to a spoken recording?" and research question 7 "Do different musical genres triggers involuntary mental rehearsal to different extents?" were inquired at this stage.

Two weeks later from conducting the quasi experiment by playing the same song three times and dealing with the meaning of the lyrics, whether the lyrics they dealt in the class repeated in their minds afterwards or not was questioned in the post treatment test. Reports were categorized as "yes" or "no" to the question "Did any words stick in your mind in the following days after you listen to the song/text in class?" In group A, % 64 of the participants reported experiencing the din. In group B which listened to jazz version this rate decreased to %42. %57 of the participants in Group C reported that they experienced the din. However, in Group D which listened to the spoken version only %30 of the participants reported having the din.

Figure 6

Percentages of Din Reports
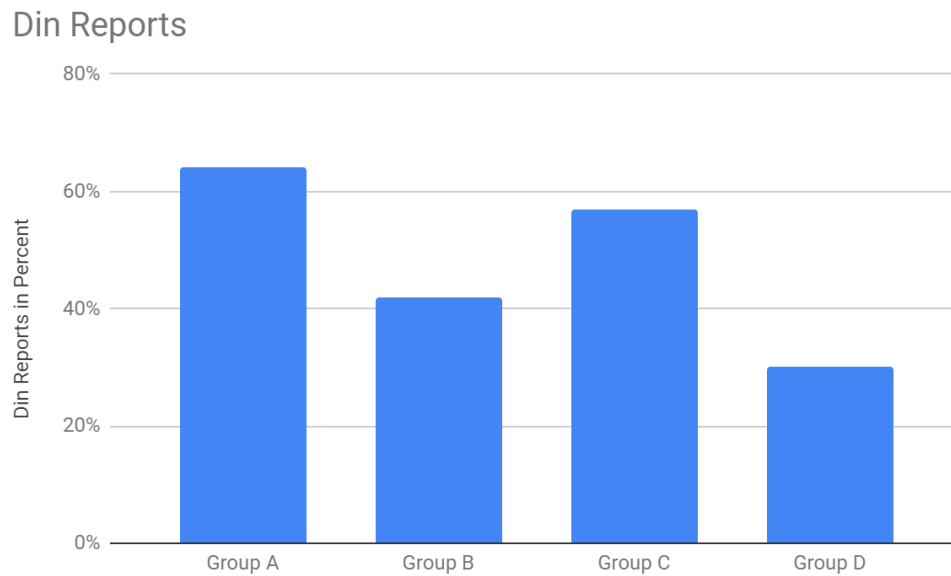
In order to see whether the data normally distributed Kolmogorov-Smirnov test was performed. As a result of the Kolmogorov-Smirnov test, it was seen that data was required to be analysed with a parametric test.

In order to see if there is a significant difference between the means of the din reports of the groups, one way ANOVA test was performed. The analysis showed that there was a significant effect of music genres on din at $p<.05$ level for four conditions [$F(3, 108) = 2,8$, $p = 0,042$].

Table 3

Results from one-way ANOVA on mean din reports between treatment groups

Source	Df	SS	MS	F	p
Between Groups	3	2,032	,677	2,822	,042
Within Groups	108	25,932	,240		
Total	111	27,964			

Next, Least Significant Difference (LSD) test was used in order to make pairwise comparisons of the means between four groups. SPSS output for the p value between Group D and Group A was 0,009 which indicates significant difference between the two. Similarly, the p-value between the means of Group D and Group C was 0, 037 which showed that the difference between the means of the groups was significant, as well. On the other hand, no significant difference was found between the means of Group B and Group D. Within the genres, significant difference was not found.

Table 4

Results from LSD Test on din reports between the treatment groups

(I) genres	(J) genres	Mean Difference (I-J)	Std. Error	Sig.	95% Confidence Interval Lower Bound	Upper Bound
Spoken	Rock	,34286[*]	,12876	,009	,0876	,5981
	Jazz	,12308	,13130	,351	-,1372	,3833
	Reggae	,27143[*]	,12876	,037	,0162	,5267

Chapter 5

Discussions and Conclusions

In this chapter, the findings presented in the previous chapter were discussed with reference to the research questions, corresponding hypotheses, findings obtained from similar studies and notions presented in the literature review section. Later, an overview of the study will be presented with reference to the literature. Subsequently, limitations of the study and suggestions for further studies will be mentioned.

5.1. Discussion of the Findings

Main purpose of the present study was to find out if there is a significant difference between different musical genres and spoken recordings in terms of influencing immediate and delayed text recall and triggering involuntary mental rehearsal. In order to achieve this purpose, five research questions were stated.

The first research question was "Is there a significant increase in immediate text recall of elementary level Turkish high school EFL learners when the text is learned through the use of songs compared to those who learned the text through a spoken recording?" In a similar study by Höfler (2013), it was shown that learning a text through the use of songs did not influence the immediate recall performances in a positive way. In another similar study which Sims (2008) conducted with 128 participants, 24 sentences were presented to the participants as "fast spoken-slow spoken -fast sung-slow sung" and in the recall test administered subsequently highest recall rate was obtained when the sentences were spoken slowly but not sung. In accordance with the findings mentioned above, present study did not reveal any significant difference between the use of songs and spoken recordings in terms of enhancing text recall.

In Salcedo's (2002) study, answers for this same research question varied with songs, since he used different songs in his study. While the students in music group scored

significantly higher than the students in text group with first and third songs, second song did not reach significance. Salcedo (2002) ascribed this difference to the popularity of third song and conducting it more immediately than the other cloze tests. In Salcedo's (2002) study, since the instructor was misinformed about the process, while cloze tests for Song 1 and 2 were given to participants the next class period, cloze test for song 3 was given in the same treatment day. On the other hand, as all the cloze tests were performed right after the treatment and song was unfamiliar to all students, the present study was not affected by these variables and there were no statistically significant differences between the treatment groups.

Second research question of this study "Is there a significant increase in delayed text recall of elementary level Turkish high school EFL learners when the text is learned through the use of songs compared to those who learned the text through a spoken recording?" was asked with the intention of testing the influence of the use of songs on long term memory. Data analysis showed that participants in the music group scored higher in delayed text recall test as compared to those learned the text through a spoken recording which indicates that music contributes to retain a material in long term memory. In contrast to the present study, Salcedo (2002) found no difference in delayed text recall between the music group and text group. However, Salcedo's (2002) study deals with some difficult and poetic language, while the present study preferred more plain and comprehensible text. On the other hand, in Höfler's (2002) study which was closely similar to the present study in terms of time intervals, song group outperformed the text group on delayed text recall.

In a similar study Rainey and Larsen (2002) conducted in which participants learned a list of names given in spoken or sung form, findings showed that the ones heard the sung version performed better in recalling the names a week later which was congruent with the present study as well in terms of music's influence on long term memory.

To sum up, findings of second research question of the present study confirms the argument that when information is presented with a melody, it is stuck into our minds and we remember certain phrases even after a long while (Bon Joo, 2015) and it is also congruent with several other studies associating the long term memory with music (Moore, Peterson, O'Shea, McIntosh & Thaut, 2008; Moussard, Bigand, Belleville & Peretz, 2012; Simmons-Stern, Budson, & Ally, 2010)

Data obtained to answer the third research question "Do musical genres differ in terms of enhancing immediate text recall of Turkish high school EFL learners?" revealed that no significant difference was found between the genres in terms of increasing immediate text recall. Since it was already found that there was no significant difference even between spoken and sung versions of the text in terms of immediate text recall, this finding was not surprising for the researcher. This result confirmed the similar studies (Höfler, 2013; Saljedo 2002; Sims, 2008) which found that immediate recalling was not enhanced by music to a significant extent.

On the other hand, fourth research question "Do musical genres differ in terms of enhancing delayed text recall of Turkish high school EFL learners?" was studied and the results showed that there was a significant difference between two genres in increasing the text recall of learners. P-value for the difference between the means of rock and jazz groups was 0,001, and it was 0,041 between rock and reggae. These findings suggest that rock music may serve as a stronger mnemonic device for Turkish EFL learners than reggae and jazz. While Höfler (2013) was accounting for the success of a certain group of students in delayed text recalling in her study, she implied that this can be ascribed to either their being frequently exposed to the song or having a personal will to listen to the song and engaging in the activity with this particular song might play a role and she added; "A high personal interest in the song might have led them to engage more attentively with the lyrics and also promoted its

recall. With regards to Höfler's (2013) arguments, for the present study, it can be implied that being not familiar with the jazz and reggae sounds, might have discouraged students to accompany the songs and consequently led them be less exposed to the lyrics. Since jazz and reggae were the least popular genres among the participants and they had different scales which were not familiar to the ones popular among the Turkish high school students, this implication seems reasonable.

The fifth research question "What are Turkish High School EFL learners' opinions about the musical genres being used during the lessons?" was asked in the post treatment test. As expected, students did not report enjoying listening to jazz in the class. Reports from the post treatment test showed that while %71 of the participants reported that they enjoyed the song in group A, only %30 of participants reported enjoying it in Group B and %53 of participants reported that they liked the song in group C. Their being not familiar with jazz might be thought to be one of the reasons for that. Moreover, since it requires theoretical knowledge, musical background and instruments which are not common in middle class, Jazz can be thought to be a genre appeals to the people of higher socioeconomic status. Whether there is a relationship between socioeconomic status and musical tastes, was tested with an empirical study by Schuesslert (1948). In the study he conducted on 1200 participants from different socioeconomic status which are inferred with respect to their occupations. They were categorized as; professional, clerical, business, skilled workers, semi-skilled workers and unskilled workers. Participants listened selections from different genres and filled a form to choose the best statement describing their opinions about the selection. At the end of the study, it was found that upper classes reported enjoying classical, light classical selections, while lower classes liked jazz and hill-billy music. With reference to these findings; Schuesslert (1948) argues that as upper classes had the opportunity of receiving musical training which is a significant factor influencing musical taste, this experience of them may

tempt them to form a positive attitude towards a certain genre while making them form unfavourable attitude towards other genres. This argument is congruent with the claims of the present study about the participants' musical preferences. However, the finding, that jazz had appeal for lower classes, seems totally in contrast with our claims about the students' negative attitude towards jazz music. At this point, Johnson's (2003) argument that jazz music has moved back and forth across high and low cultures regardless of its geographical origins, accounts for this contrast. While jazz may have an appeal for low cultures in a certain culture, it may appeal to upper classes in another. Thus the findings of the present study may be interpreted as follows, in Turkish culture jazz appeals to people with higher socioeconomic status and as the participants of this study belong to lower socioeconomic class, it is not listened by them. Moreover, it may have less influence on them.

Sixth research question was "Do elementary level Turkish EFL learners who learned a text through a song experience a higher and more frequent occurrence of involuntary mental rehearsal when compared to a spoken recording?"

In Höfler's (2013) study it was found that while %82,9 of song group reported having a din experience, in text group only %63,9 of the participants reported a din occurrence and when these findings were analysed with ANOVA, it was revealed that the difference between the means were highly significant. Salcedo's (2002) findings were not unlike the previous studies. In Salcedo's (2002) study, only %33 of text group reported din occurrence. On the other hand, in song group %66 of the participants reported having din.

The findings of the present study are congruent with the similar studies. While %64 of rock group and %57 of reggae group reported having din experience, only % 30 reported din in spoken group. Statistical analysis showed that this difference between the means were significant (p=0,042). However, though more participants reported having the din with 42 percentage in jazz group, significance level between the jazz and spoken group was 0,351. In

other words, jazz music can thought not to be as effective as the other genres in triggering the din.

Seventh research question was "Do different musical genres triggers involuntary mental rehearsal to different extents?" Though the number of participants who experienced din in rock group was distinguishably higher than jazz group, statistical analysis showed that this difference between the genres was not significant.

When we compared the genres in terms of their influence on text recall and involuntary mental rehearsal, it was seen that jazz is the least effective one. However, even though data obtained in the background information showed that rate of listening to reggae is as low as rate of listening to jazz among the Turkish high school students, reggae group scored better in both immediate and delayed text recall and they reported more frequent din occurrence. One possible reason for that might be the introduction of reggae rhythms into Turkish popular music. Though young people are not familiar with reggae as a genre, they started to hear components of reggae involuntarily with the mostly listened hit songs. For instance, one of the most popular songs by prominent Turkish rap singer Ezhel named "Felaket" which is listened nearly 35.000.000 times on digital music service Spotify, is totally a harmony of reggae rhythms and Anatolian melodies. This familiarity may be seen as a reason for grasping the attention of students during the listening activities.

5.2. An overview of the study

A large number of studies have been conducted in the field of language teaching with the purpose of analysing the influence of music on language learning. Paquette and Rieg (2008) assert that music reduces the affective filter of language learners and it helps creating a casual learning environment. Bartle (1962) thinks that songs make it easy to memorize phrasal structures. Claerr and Gargan (1984) see music as an effective tool to get familiar with

the culture, improve listening comprehension, learn linguistic aspects, make literary analysis, develop communicative abilities and grow affection.

Moreover a few studies focused on the relationship between music and the text recall of language learners. Both of the studies carried by Salcedo (2002) and Höfler (2013) showed that though music does not lead to a significant difference in immediate text recall abilities of language learners, it increases the delayed text recall abilities to a significant degree. On the other hand, neither of them studied the effect of a specific musical genre on text recall. Differently from the other studies, the present study compared the musical genres in terms of influencing text recall.

Other point of focus was involuntary mental rehearsal. To emphasize the necessity of research studies about involuntary mental rehearsal Krashen (1983) states that; "if we can get reliable reports from students on when the din is "on" and when it is "off", it may help to tell us when our instruction is effective" (p. 44)

Findings of the present study showed that there is not a significant difference neither between the spoken or music groups, nor within the genres in terms of immediate text recall, On the other hand, significant difference was observed between the groups on delayed text recall which was congruent with Höfler's (2013) findings while it was in contrast to Salcedo's (2002). Among the music groups, participants in rock group reached the higher score.

Moreover, the study showed that the number of participants reporting involuntary mental rehearsal in spoken group was less than music groups. Within the genres, least frequent number of participants reporting din was in jazz group.

This study might contribute to the field with empirical data both congruent and contradictory with the findings of Salcedo's (2002) and Höfler's (2013) on the relationship between music and immediate-delayed text recall and the involuntary mental rehearsal.

Moreover, it provided forthcoming studies on the use of different genres in language classes with empirical data.

5.3. Implications for Foreign Language Teaching

Music is widely perceived to be a beneficial teaching tool in English language classes. English language teachers often benefit from music when they would like to make a target phrase more memorable or teach vocabulary in a more effective way. However, there is a lack of conscience on that music is a broad term including dozens of different genres and those genres differ in evoking feelings. This lack of conscience may lead to a decrease in the effectiveness of teaching methods. The songs selected to be used may be ineffective because of their genres. When teachers become aware of the difference between the effectiveness of different genres, they may become more selective when they decide on the song to use in language teaching activity. In other words, this study may help creating awareness about the genre of the song selected to use in language teaching classes

Involuntary mental rehearsal which is addressed by Krashen (1983) as a potential tool to improve language teaching has also been disregarded by researchers. When the techniques of triggering the din was revealed, teachers may be able to make certain phrases of target language din in the learners' heads. This study may give an idea to teachers about din and lead them to seek ways of triggering it.

5.4. Limitations of the Study

Number of participants is one of the limitations of the study. Only 112 participants took part in the study which makes it difficult to generalize the results to a large number of learners and they represent only one single socioeconomic profile as they all live in the same neighbourhood. As the school is an all-girls high school, gender differences could not be inquired which can be seen as a limitation of the study.

Song selection was another limitation of this study. Since it was difficult to determine songs which are covered in a variety of different genres and also with an appropriate theme for school atmosphere, this study is limited to one song.

Lastly, reliability of din reports from the participants was another limitation of the present study. Since din is not an explicit notion it may be difficult for participants to identify din. Thus, reports of din are open to question.

5.5. Suggestions for Further Studies

Researchers may conduct a more sophisticated research with larger number of participants in a longer time interval. In order to define the musical genres more accurately, the study can be replicated by a musician. And in order to eliminate all the other variables in the songs like the voice of the singer or orchestration, songs may be recorded in the same studio and with the same musical equipment with the same singer performing the songs.

As for studying involuntary mental rehearsal, benefiting from technology to read neural activities can facilitate observing din occurrence more explicitly. By this way, the din reports from participants' self-perceptions might be justified.

REFERENCES

Abbott, M. (2002). Using music to promote L2 learning among adult learners. *TESOL Journal*, *11*(1), 10-17.

Abrate, J. H. (1983). Pedagogical applications of the French popular song in the foreign language classroom. *The Modern Language Journal*, *67*(1), 8-12.

Akagi, D. (2016). Improving the Perception and Production of English Prosody of Japanese University EFL Students through Jazz Chants. 日本大学歯学部紀要, *44*, 25-31.

Akbarpour, S., & Roohani. (2015) The comparative impact of song and nonsong vocabulary instructions. *International Journal of Language Learning and Applied Linguistics World, 10* (2)*,* 1-12.

Alipour, M., Gorjian, B., & Zafari, I. (2012). The effects of songs on EFL learners' vocabulary recall and retention: The case of gender. *Advances in Digital Multimedia (ADMM)*, *1*(3), 140-143.

Alpert, M. I., Alpert, J. I., & Maltz, E. N. (2005). Purchase occasion influence on the role of music in advertising. *Journal of Business Research*, *58*(3), 369-376.

Altenmüller, E. O. (2001). How many music centers are in the brain?. *Annals of the New York Academy of Sciences*, *930*(1), 273-280.

Anderson, R. C., & Freebody, P. (1981). Vocabulary knowledge. In J.T.Guthrie (Eds.). *Comprehension and Teaching; Research Reviews.* (pp.77-118). Newark: International Reading Association

Arevalo, E. A. R. (2010). The use of songs as a tool to work on listening and culture in EFL classes. *Cuadernos de lingüística hispánica*, (15), 121-138.

Arnon, S., Shapsa, A., Forman, L., Regev, R., Bauer, S., Litmanovitz, I., & Dolfin, T. (2006). Live music is beneficial to preterm infants in the neonatal intensive care unit environment. *Birth*, *33*(2), 131-136.

Atta-Alla, M. N. (2012). Developing adult English language learners' vocabulary skills through children's rhymes and songs. *English Language Teaching*, *5*(11), 79-90.

Aucouturier, J. J., & Pachet, F. (2003). Representing musical genre: A state of the art. *Journal of new music research*, *32*(1), 83-93.

Basili, R., Serafini, A., & Stellato, A. (2004, October). *Classification of musical genre: a machine learning approach*. Paper presented in ISMIR. Barcelona.

Bastien, D. T., & Hostager, T. J. (1988). Jazz as a process of organizational innovation. *Communication Research*, *15*(5), 582-602.

Bartle, G. (1962). Music in the language classroom. *Canadian Modern Language Review*, *19*(1), 11-14.

Bedford, D. A. (1985). Spontaneous playback of the second language: A descriptive study. *Foreign Language Annals*, *18*(4), 279-287.

Blackburn, H. (2017). Music in the Classroom. *International Journal of the Whole Child*, *2*(1), 26-33.

Bon Joo, P. (2015). The Effects of Text with Melody on Text Recall for Young EFL Learners: Measuring Response Time. 영어영문학, *20*(4), 337-357.

Boyle, J. D., Hosterman, G. L., & Ramsey, D. S. (1981). Factors influencing pop music preferences of young people. *Journal of Research in Music Education*, *29*(1), 47-55.

Burred, J. J., & Lerch, A. (2003, September). A hierarchical approach to automatic musical genre classification. In *Proceedings of the 6th international conference on digital audio effects* (pp. 8-11).

Bygrave, P. L. (1995). Development of receptive vocabulary skills through exposure to music. *Bulletin of the Council for Research in music education*, 28-34.

Campbell, D. (1996). The effects of soft background music on compliance in the classroom: A case study of some New York City special education classrooms. *Dissertation Abstracts*

International Section A: Humanities and Social Sciences, 57(6-A), 2432.

Chan, A. S., Ho, Y. C., & Cheung, M. C. (1998). Music training improves verbal memory. *Nature*, *396*(6707), 128.

Chesley, P. (2011). You know what it is: Learning words through listening to hip-hop. *Public Library of Science ONE, 6*(12), 1-10.

Chujo, J. (2011). Incorporation and evaluation of jazz chants instruction in Japanese University English classes. In M.Pinto & D.Shaffer (Eds.), *KOTESOL Proceedings 2010*, 83-96. Seoul: Korea TESOL

Claerr, T. A., & Gargan, R. (1984). The Role of Songs in the Foreign Language Classroom. *OMLTA Journal*, *28*, 32.

Coyle, Y., & Gómez Gracia, R. (2014). Using songs to enhance L2 vocabulary acquisition in preschool children. *ELT Journal*, *68*(3), 276-285.

de Guerrero, M. C. (1987). The din phenomenon: Mental rehearsal in the second language. *Foreign Language Annals*, *20*(6), 537-548.

Domoney, L., & Harris, S. (1993). Justified and ancient: Pop music in EFL classrooms. *ELT journal*, *47*(3), 234-241.

Dorrell, P. (2005). What Is Music?: Solving a Scientific Mystery. Lulucom.

Dissanayake, E. (2009). Root, leaf, blossom, or bole: Concerning the origin and adaptive function of music. In S. Malloch & C. Trevarthen (Ed.) *Communicative musicality: Exploring the basis of human companionship.* (pp.17-29). Oxford: Oxford University Press

Dunbar, D. S. (1990). Music, and advertising. *International Journal of Advertising*, *9*(3), 197-203.

Edwards, P. (2009). How to rap: The art and science of the hip-hop MC. Chicago, IL: Chicago Review Press.

Eken, D. K. (1996,). Ideas for using songs in the English language classroom. In

English Teaching Forum 34(1), pp. 46-47.

Engh, D. (2013). Why use music in English language learning? A survey of the literature. *English Language Teaching*, *6*(2), 113-127.

Fabbri, F. (1982). A theory of musical genres: two applications. *Popular Music Perspectives*, *1*, 52-81.

Failoni, J. W. (1993). Music as Means To Enhance Cultural Awareness and Literacy in the Foreign Language Classroom. *Mid-Atlantic Journal of Foreign Language Pedagogy*, *1*, 97-108.

Ferrarese, M. (2017). Punk rock as a second language: The value of punk music scene affiliation for non-native English speakers. *Journal of Popular Music Education*, *1*(3), 317-330.

Fisher, D. (2001). Early language learning with and without music. *Reading Horizons*, *42*(1), 39-49.

Freedman, R. (2003). *The modern scholar: Understanding the fundamentals of classical music*. Retrieved from:https://www.recordedbooks.com/search?searchterms=%2FOPlMbjZmwyKZ6T9v46u 0MOo5afEO151HMwP3hCjM8U%3D

Frith, S., Straw, W., & Street, J. (Eds.). (2001). *The Cambridge companion to pop and rock*. Cambridge: Cambridge University Press.

Gangrade, A. (2012). The effect of music on the production of neurotransmitters, hormones, cytokines, and peptides: A review. *Music and Medicine*, *4*(1), 40-43.

Gaser, C., & Schlaug, G. (2003). Brain structures differ between musicians and non-musicians. *Journal of Neuroscience*, *23*(27), 9240-9245.

Giddins, G., & DeVeaux, S. K. (2009). *Jazz*. WW Norton & Company Incorporated.

Göher, F. (2009). Müziğin Toplumsal İşlevi: Müzik, Siyaset, Din ve Ekonomi. *Müzik Kültürü*

ve Eğitimi, *2,* 301-313.

Gantz, W., Gartenberg, H. M., Pearson, M. L., & Schiller, S. O. (1978). Gratifications and expectations associated with pop music among adolescents. *Popular Music & Society*, *6*(1), 81-89.

Hancock, M. (2013). *Singing Grammar Book and Audio CD: Teaching Grammar Through Songs*. Cambridge: Cambridge University Press.

Hargreaves, D. J., Miell, D., & MacDonald, R. A. (2002). What are musical identities, and why are they important. *Musical identities*, *2*, 1-20.

Höfler, A. M. (2013). *Can't get it out of my head* (Unpublished Doctoral Dissertation). University of Vienna, Vienna.

Janata, P. (2015). Neural basis of music perception. *Handbook of Clinical Neurology,129,*187-205.

https://doi.org/10.1016/B978-0-444-62630-1.00011-1

Jackendoff, R. (2009). Parallels and non-parallels between language and music. *Music Perception: An Interdisciplinary Journal*, *26*(3), 195-204.

Johnson, J. (2002). *Who needs classical music?: cultural choice and musical value*. Oxford University Press: Demand.

Johnson, B. (2003). Jazz as cultural practice. In *The Cambridge companion to jazz* (pp. 96-113). Cambridge: Cambridge University Press.

Jones, S. (1988). *Black culture, white youth: The reggae tradition from JA to UK*. Palgrave MacMillan.

Kotarba, J. A. (2013). *Understanding society through popular music*. London: Routledge.

Krashen, S. (1982). Principles and Practices of Second Language Acquisition. Oxford: Pergamon Press.

Krashen, S. D. (1983). The din in the head, input, and the language acquisition device. *Foreign Language Annals*, *16*(1), 41-44.

Lamere, P. (2008). Social tagging and music information retrieval. *Journal of new music research*, *37*(2), 101-114.

Lancashire, T. (2003). World music or Japanese-the gagaku of Tôgi Hideki. *Popular Music*, *22*(1), 21-39.

Lem, K. (2001). Using music in the adult ESL classroom. *ERIC Digest,12,* 1-5.

Lee, J. S. (2011). Globalization of African American Vernacular English in popular culture: Blinglish in Korean hip hop. *English World-Wide*, *32*(1), 1-23.

Lenka, O. (2011). The Use of Pop Songs in the EFL Classroom. Hamburg: Diplomica Verlag.

Li, X., & Brand, M. (2009). Effectiveness of music on vocabulary acquisition, language usage, and meaning for mainland Chinese ESL learners. *Contributions to music education*, 73-84.

Limb, C. J., Kemeny, S., Ortigoza, E. B., Rouhani, S., & Braun, A. R. (2006). Left hemispheric lateralization of brain activity during passive rhythm perception in musicians. *The Anatomical Record Part A: Discoveries in Molecular, Cellular, and Evolutionary Biology: An Official Publication of the American Association of Anatomists*, *288*(4), 382-389.

Martin, R. C., Wogalter, M. S., & Forlano, J. G. (1988). Reading comprehension in the presence of unattended speech and music. *Journal of memory and language*, *27*(4), 382.

Masataka, N. (2007). Music, evolution and language. *Developmental Science*, *10*(1), 35-39.

Maultsby, P. K. (2014). Funk. In *African American Music* (pp. 317-335). Routledge.

McKay, C., & Fujinaga, I. (2006, October). Musical genre classification: Is it worth pursuing and how can it be improved?. In *ISMIR* (pp. 101-106).

McQuillan, J., & Rodrigo, V. (1995). A reading "Din in the Head": Evidence of involuntary mental rehearsal in second language readers. *Foreign Language Annals*, *28*(3), 330-336.

Medina, S. (1990, March). The effects of music upon second language vocabulary

acquisition. Paper presented at the annual meeting of the Teachers of English to Speakers'
of Other Languages, San Francisco, CA.

Millington, N. T. (2011). Using songs effectively to teach English to young learners.
Language Education in Asia, *2*(1), 134-141.

Milton, J. (2013). Measuring the contribution of vocabulary knowledge to proficiency in the
four skills. In C. Bardel, C. Lindqvist & B. Laufer (Eds.), L2 vocabulary acquisition,
knowledge and use: New perspectives on assessment and corpus analysis (pp. 57–78).
Eurosla Monographs Series, 2.

Mithen, S., Morley, I., Wray, A., Tallerman, M., & Gamble, C. (2006). The Singing
Neanderthals: the Origins of Music, Language, Mind and Body, by Steven Mithen.
London: Weidenfeld & Nicholson, 2005. ISBN 0-297-64317-7 hardback£ 20 & US $25.2;
ix+ 374 pp. *Cambridge Archaeological Journal*, *16*(1), 97-112.

Moore, K. S., Peterson, D. A., O'Shea, G., McIntosh, G. C., & Thaut, M. H. (2008). The
effectiveness of music as a mnemonic device on recognition memory for people with
multiple sclerosis. *Journal of Music Therapy*, *45*(3), 307-329.

Mora, C. F. (2000). Foreign language acquisition and melody singing. *ELT journal*, *54*(2),
146-152.

Morales Neisa, C. (2008). Using rock music as a teaching-learning tool. *Profile Issues in
Teachers Professional Development*, *9*, 163-180.

Moi, C. F. (2003). Material for language through literature. Rocking the classroom: Rock
poetry materials in the EFL class. In B. Tomlinson (Ed.), Developing materials for
language teaching (pp. 406-420). London: Continuum.

Moussard, A., Bigand, E., Belleville, S., & Peretz, I. (2012). Music as an aid to learn new
verbal information in Alzheimer's disease. *Music Perception: An Interdisciplinary Journal*,
29(5), 521-531.

Murphey, T. (1990). The song stuck in my head phenomenon: a melodic Din in the LAD?. *System*, *18*(1), 53-64.

Music. (n.d.) Retrieved in July 2, 2018, from https://www.merriam- webster.com/dictionary/music-

Nielsen, C. S., Soares, A. M., & Páscoa Machado, C. (2009). The cultural metaphor revisited: Exploring dimensions, complexities and paradoxes through the Portuguese fado. *International Journal of Cross Cultural Management*, *9*(3), 289-308.

Overy, K., & Molnar-Szakacs, I. (2009). Being together in time: Musical experience and the mirror neuron system. *Music Perception: An Interdisciplinary Journal*, *26*(5), 489-504.

O'Sullivan, K. (2008). The Mozart effect in the classroom. In *International Conference on Engaging Pedagogy, Dublin, Ireland. Retrieved from http://icep. ie/wp-content/uploads/2010/01/OSullivan.Pdf*.

Pamir, L. (1989). Müzikte geniş soluklar: Müzik üzerine. İstanbul: Ada.

Parr, P. C., & Krashen, S. D. (1986). Involuntary rehearsal of second languages in beginning and advanced performers. *System*, *14*(3), 275-278.

Paquette, K. R., & Rieg, S. A. (2008). Using music to support the literacy development of young English language learners. *Early Childhood Education Journal*, *36*(3), 227-232.

Pate, A. (2009). *In the heart of the beat: the poetry of rap*. Toronto. Scarecrow Press.

Patel, A. D. (2003). Language, music, syntax and the brain. *Nature neuroscience*, *6*(7), 674.

Peterson, R. A. (1990). Why 1955? Explaining the advent of rock music. *Popular music*, *9*(1), 97-116.

Rahbar, S., & Khodabakhsh, S. (2013). English songs as an effective asset to improve listening comprehension ability; evidence from Iranian EFL Learners. *International Journal of Applied Linguistics and English Literature*, *2*(6), 63-66.

Rauscher, F. H., Shaw, G. L., & Ky, K. N. (1993). Music and spatial task performance.

Nature, *365*(6447), 611.

Racette, A., & Peretz, I. (2007). Learning lyrics: to sing or not to sing?. *Memory & cognition*, *35*(2), 242-253.

Rainey, D. W., & Larsen, J. D. (2002). The effect of familiar melodies on initial learning and long-term memory for unconnected text. *Music Perception: An Interdisciplinary Journal*, *20*(2), 173-186.

Ricketts, J., Nation, K., & Bishop, D. V. (2007). Vocabulary is important for some, but not all reading skills. *Scientific Studies of Reading*, *11*(3), 235-257.

Register, D., Darrow, A. A., Swedberg, O., & Standley, J. (2007). The use of music to enhance reading skills of second grade students and students with reading disabilities. *Journal of Music Therapy*, *44*(1), 23-37.

Rock. (n.d.). In *Encyclopædia Britannica online*. Retrieved from https://www.britannica.com/art/rock-music#ref93481

Salcedo, Claudia Smith, (2002). *The effects of songs in the foreign language classroom on text recall and involuntary mental rehearsa*l. (Unpublished Doctoral Dissertation). Louisiana State University, Louisiana.

Salcedo, C. S. (2010). The effects of songs in the foreign language classroom on text recall, delayed text recall and involuntary mental rehearsal. *Journal of College Teaching and Learning*, *7*(6), 19-30.

Saricoban, A., & Metin, E. (2000). Songs, verse and games for teaching grammar. *The Internet TESL Journal*, *6*(10), 1-7.

Scaruffi, P. (2003). *A history of rock music: 1951-2000*. iUniverse.

Schlaug, G., Jancke, L., Huang, Y., & Steinmetz, H. (1995). In vivo evidence of structural brain asymmetry in musicians. *Science*, *267*(5198), 699-701.

Schuessler, K. F. (1948). Social background and musical taste. *American Sociological Review*, *13*(3), 330-335.

Sevilla, J. M. (1996). Involuntary rehearsal of second language at the elementary level: Do elementary school children experience the din in the head?. *System*, *24*(1), 101-105.

Sezer, F. (2011). Öfke ve psikolojik belirtiler üzerine müziğin etkisi. *Uluslararası insan bilimleri dergisi*, *8*(1), 1472-1493.

Shehadeh, I. I., & Farrah, M. A. (2016). The Effectiveness of Using Children's Songs in Developing Elementary Graders' English Vocabulary and Pronunciation in Jerusalem, Palestine. *Journal of Creative Practices in Language Learning and Teaching, 4 (2),* 44-60.

Shakerian, P., Rezaei, O., Murnani, Z. T., & Moeinmanesh, H. (2016). Investigating the Role of Pop Songs on Vocabulary Recall, Attitude and Retention of Iranian EFL Learners: The Case of Gender. *Advances in Language and Literary Studies*, *7*(2), 121-128.

Simmons-Stern, N. R., Budson, A. E., & Ally, B. A. (2010). Music as a memory enhancer in patients with Alzheimer's disease. *Neuropsychologia*, *48*(10), 3164-3167.

Sims, W. (2008). *Music and word recall: The strength of familiar melodies as mnemonic devices* (Doctoral dissertation, The Ohio State University).Retrieved from http://kb.osu.edu/dspace/handle/1811/33920

Šišková, D. (2008). *Teaching vocabulary through music* (Unpublished Doctoral Thesis). Masarykova univerzita, Brno.

Sordo, M., Celma, O., Blech, M., & Guaus, E. (2008). The quest for musical genres: Do the experts and the wisdom of crowds agree?. In *ISMIR* (pp. 255-260).

Steele, K. M., Bass, K. E., & Crook, M. D. (1999). The mystery of the Mozart effect: Failure to replicate. *Psychological Science*, *10*(4), 366-369.

Steele, K. M., Dalla Bella, S., Peretz, I., Dunlop, T., Dawe, L. A., Humphrey, G. K., ... & Olmstead, C. G. (1999). Prelude or requiem for the 'Mozart effect'?. *Nature*, *400*(6747),

827.

Street, J. (2003). 'Fight the Power': The Politics of Music and the Music of Politics. *Government and Opposition*, *38*(1), 113-130.

Thompson, W. F., Schellenberg, E. G., & Letnic, A. K. (2012). Fast and loud background music disrupts reading comprehension. *Psychology of Music*, *40*(6), 700-708.

Tramo, M. J., Cariani, P. A., Delgutte, B., & Braida, L. D. (2003). Neurobiology of harmony perception. *The cognitive neuroscience of music*, 127-151.

Tzanetakis, G., & Cook, P. (2002). Musical genre classification of audio signals. *IEEE Transactions on speech and audio processing*, *10*(5), 293-302.

Vernetti, C. J., & Jacobs, J. F. (1972). Effects of music used to mask noise in learning disability classes. *Journal of Learning Disabilities*, *5*(9), 533-537.

Vincent, R. (2014). *Funk: The music, the people, and the rhythm of the one*. St. Martin's Griffin.

Wallaschek, R., & Cattell, J. (1891). On the Origin of Music. *Mind,16*(63), 375-388. Retrieved from http://www.jstor.org/stable/2247386

Wallin, N. L., Merker, B., & Brown, S. (Eds.). (2001). *The origins of music*. MIT press.

Xu, C., Maddage, N. C., Shao, X., Cao, F., & Tian, Q. (2003, April). Musical genre classification using support vector machines. In *Acoustics, Speech, and Signal Processing, 2003. Proceedings.(ICASSP'03). 2003 IEEE International Conference on* (Vol. 5, pp. V-429). IEEE.

Yang, Liu (Leslie).(2011). *Using music in English as a second language classroom.* (Unpublished Master's thesis). University of Wisconsin-Platteville, Wisconsin.

Appendixes

Appendix 1

QUESTIONNAIRE

Sevgili öğrenciler;

Çalışmamıza destek vermeyi kabul ettiğiniz için teşekkür ederiz. 5 dakika sürecek bu anket, müzikal zevklerinize dair fikir edinmeyi amaçlamaktadır. Araştırmanın sağlıklı yürütülebilmesi için sizden beklentimiz içten ve gerçekçi cevaplarınızı bizlerle paylaşmanızdır. Paylaştığınız bilgiler sadece bilimsel amaç için kullanılacaktır.

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Peyami Safa YAPRAK
pymsfy@gmail.com

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Doğum Tarihiniz: …../…../…….

BİRİNCİ BÖLÜM

Aşağıdaki müzik tarzlarından kendinize en yakın gördüğünüz 3 tanesini kutucuklara işaretleyiniz.

- ☐ Pop
- ☐ Rock
- ☐ Klasik Müzik
- ☐ Heavy Metal
- ☐ Hip Hop
- ☐ R&B
- ☐ Caz
- ☐ Elektronik Müzik
- ☐ Punk
- ☐ Flamenko
- ☐ Reggae
- ☐ Diğer

İKİNCİ BÖLÜM

Dinlediğiniz şarkılarda en sıklıkla duyduğunuz enstrümanları yanlarındaki kutucuklara işaretleyiniz.

- ☐ Keman
- ☐ Gitar
- ☐ Saksofon
- ☐ Kontrbas
- ☐ Flüt
- ☐ Elektro-gitar
- ☐ Piyano
- ☐ Trompet
- ☐ Akordeon
- ☐ Klarnet
- ☐ Org
- ☐ Bateri

☐ Diğer: ……………………………

ÜÇÜNCÜ BÖLÜM

En sık dinlediğiniz yabancı şarkıcı ya da müzik gruplarını aşağıdaki listeye yazınız.

1 _____   6_____

2 _____

3 _____

4 _____

5 _____

7_____

8_____

9_____

10_____

Appendix 2

LYRICS

When you were here before, couldn't look you in the eye

You're just like an angel, your skin makes me cry

You float like a feather in a beautiful world

And I wish I was special, You're so very special

But I'm a creep, I'm a weirdo.

What the hell am I doing here? I don't belong here.

I don't care if it hurts, I want to have control

I want a perfect body, I want a perfect soul

I want you to notice When I'm not around

You're so very special, I wish I was special

But I'm a creep, I'm a weirdo.

What the hell am I doing here? I don't belong here.

She's running out again

She's running out, she's run run run run

Whatever makes you happy, whatever you want

You're so very special, I wish I was special

But I'm a creep, I'm a weirdo,

What the hell am I doing here? I don't belong here. I don't belong here.

Appendix 3

Cloze Test

Doğum tarihiniz:

When you were here before, couldn't look you in the eye

You're just like an _____ (1), your skin makes me _____(2)

You float like a feather in a _____(3) world

And I wish I was special, You're so very special

But I'm a creep, I'm a weirdo.

What the hell am I doing here? I don't belong here.

I don't care if it _____ (4), I want to have control

I want a perfect _____(5), I want a perfect _____ (6)

I want you to notice when I'm not _____ (7)

You're so very special, I wish I was special

But I'm a creep, I'm a weirdo.

What the hell am I doing here? I don't belong here.

She's running out _____ (8)

She's running out, she's run run run run

Whatever makes you _____(9), whatever you _____(10)

You're so very special, I wish I was special

But I'm a creep, I'm a weirdo,

What the hell am I doing here? I don't belong here. I don't belong here.

Appendix 4

POST-TREATMENT QUESTIONNAIRE

Doğum tarihiniz:

Lütfen aşağıdaki soruları cevaplandırınız. Doğum tarihiniz sadece cevaplarınızı önceki eşleştirmek için kullanılacaktır. Cevaplarınız tamamen gizli tutulacaktır ve ders notlarınızla kesinlikle ilişkili değildir.

1. Derste çalınan şarkıyı sevdiniz mi? Neden?

2. Bu şarkı dinleme aktivitesinin İngilizce derslerine olumlu etkisi olduğunu düşünüyor musunuz?

3. Şarkılardan bazı sözcüklerin aklınıza geldiği oldu mu? (Sınıftaki dinleme aktivitesinin dışında)

4. Bu tekrarlama ne zaman oldu? (Hangi işle meşgulken)

5. Zihninizdeki bu tekrarlamayı kontrol edip durdurmayı başardınız mı? Yoksa şarkı zihninize kazınmış gibi tekrar mı etti?

6. Bu aktivitenin gelecekte kullanılması için eklemek istediğiniz herhangi bir düşünceniz ya da tavsiyeniz var mı?

Öz Geçmiş

Doğum Yeri ve Yılı : Samsun – 1989

Öğr. Gördüğü Kurumlar :	**Başlama Yılı**	**Bitirme Yılı**	**Kurum Adı**
Lise	2003	2007	Bursa Yıldırım Beyazıt Lisesi
Lisans	2007	……	Pamukkale Üniversitesi
	2009	2013	Uludağ Üniversitesi
Yüksek Lisans	2016	-----	Uludağ Üniversitesi

Bildiği Yabancı Diller ve

Düzeyi : İngilizce – Advanced

Çalıştığı Kurumlar :	**Başlama ve Ayrılma**	**Kurum Adı**
1.	2013-2015	Halide Edip Adıvar MTAL
2.	2015-2015	Tirebolu Anadolu Lisesi
3.	2015-…...	Velibaba Çok Programlı Anadolu Lisesi

Yurt İçi ve Yurt Dışında

Katıldığı Projeler :

Katıldığı Yurtiçi ve Yurtdışı

Bilimsel Toplantılar :

ULUDAĞ ÜNİVERSİTESİ

TEZ ÇOĞALTMA VE ELEKTRONİK YAYIMLAMA İZİN FORMU

Yazar Adı Soyadı	Peyami Safa YAPRAK
Tez Adı	Farklı Müzik Türlerinin Türkiye'de İngilizceyi İkinci Yabancı Dil Olarak Öğrenen Öğrencilerin Metin Hatırlamaları Üzerine Etkisi ve İstemsiz Zihinsel Tekrar
Enstitü	Eğitim Bilimleri Enstitüsü
Anabilim Dalı	Yabancı Diller Eğitimi
Tez Türü	Yüksek Lisans
Tez Danışman(lar)ı	*Doç. Dr. Esim Gürsoy*
Çoğaltma (Fotokopi Çekim) izni	☐ Tezimden fotokopi çekilmesine izin veriyorum ☐ Tezimin sadece içindekiler, özet, kaynakça ve içeriğinin % 10 bölümünün fotokopi çekilmesine izin veriyorum ☒ Tezimden fotokopi çekilmesine izin vermiyorum
Yayımlama izni	☐ Tezimin elektronik ortamda yayımlanmasına izin Veriyorum

Hazırlamış olduğum tezimin belirttiğim hususlar dikkate alınarak, fikri mülkiyet haklarım saklı kalmak üzere Uludağ Üniversitesi Kütüphane ve Dokümantasyon Daire Başkanlığı tarafından hizmete sunulmasına izin verdiğimi beyan ederim.

Tarih : 11.09.2019

İmza :

Peyami Safa YAPRAK