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SOSYAL BİLİMLER ENSTİTÜSÜ

TEACHING VOCABULARY THROUGH SONGS

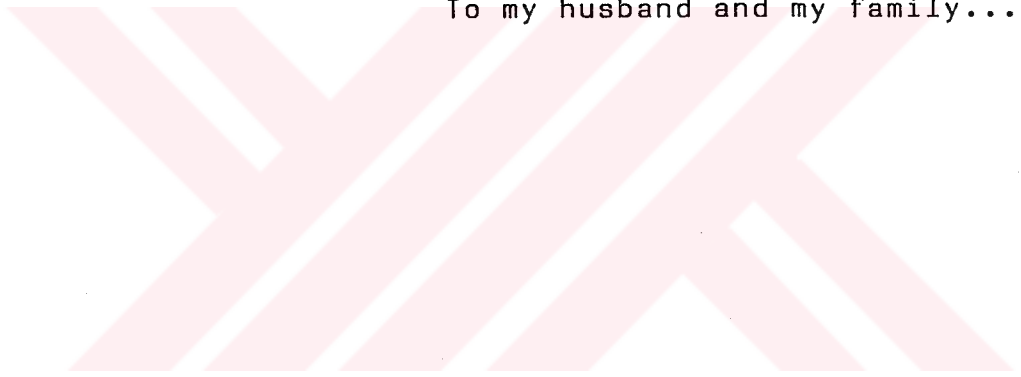
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To my husband and my family...



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ÖZET

Şarkılar ve okuma parçalarıyla kelime öğretimini karşılaştıran bu çalışma beş bölümden oluşmaktadır. Çalışma, yabancı dil düzeyleri aynı olan iki grup ile gerçekleştirilmiştir.

Birinci bölümde şarkıların dil öğretimindeki yeri kısaca özetlenmiştir. Aynı bölümde sorun, çalışmanın amacı, araştırmanın ölçütleri ve araştırmanın genişliği ve sınırlamaları da yer almaktadır. İkinci bölümde çalışmanın konusuyla ilgili daha önceden yazılmış eserlerin taraması yapılmıştır. Aynı bölümde kelime öğretiminde sınav tekniklerine de kısaca değinilmiştir. Üçüncü bölümde araştırmanın düzenlenmesi, deneklerin seçimi, çalışmayla ilgili verilerin derlenmesi ve bu verilerin analizi konuları yer almaktadır. Gruplara uygulanan testlerden edinilen veriler dördüncü bölümde istatistiksel açıdan incelenmiştir. Beşince ve son bölümde sonuçların değerlendirilmesi gerçekleştirilmiş ve daha ilerideki çalışmalara temel sağlayacak öneriler getirilmiştir.

FÜSUN MOÇOL'UN ÖZGEÇMİŞİ

1965 yılında İstanbul'da doğdu. İlk, orta ve lise öğrenimini Eskişehir'de tamamladı. 1987 yılında Anadolu Üniversitesi Eğitim Fakültesi İngiliz Dili Eğitimi Bölümünü bitirdi.

Aynı yıl Anadolu Üniversitesi Sosyal Bilimler Enstitüsü İngiliz Dili Eğitimi yüksek lisans programına kayıt oldu ve Eskişehir Temel Eğitim Dersanesinde İngilizce öğretmeni olarak göreve başladı. 1988 yılında Anadolu Üniversitesi Sivil Havacılık Meslek Yüksek Okulunda okutman olarak çalışmaya başladı. Halen aynı görevde çalışmaktadır.

ABSTRACT

This study, which consists of five chapters, attempts to compare two vocabulary teaching approaches, i.e. teaching vocabulary through songs and teaching vocabulary through reading passages. The study was administered to two groups whose levels are the same.

In Chapter I, background to the problem is given briefly. In this chapter, the problem, the purpose of the study, the research criteria, the importance of the study, its scope and limitations are also introduced. Chapter II reviews literature relevant to the study. Chapter III is concerned with the research design, selection of subjects, data collection and data analysis. The data obtained from the tests administered to the groups are statistically calculated and interpreted in Chapter IV. In Chapter V, conclusions drawn within this study and suggestions for further studies are presented.

ÖZET

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CHAPTER I

INTRODUCTION

1.1. Background to the Problem

During the past few years, it has been known that variety is one of the most important factors in maintaining a high level of motivation and interest among foreign language learners. As Fraida Dubin (1974: 1) pointed out foreign language learners need materials that reflect real-life concerns. There are many "real-life" activities that can be brought into the classroom to add variety not only to the teaching process but also to the students' experience in English. One of these "real-life" activities is singing.

Songs are commonly used to teach a foreign/second language. In most of the secondary schools, the foreign language teachers make use of songs to motivate and

to draw the students' attention to the lesson. In academic education songs can still be used for the same purposes, but in this situation the nature of the songs should be different from those which are used in secondary schools since the interests of university students are different. The university students can listen to and learn "This Old Man", or "Clementine" easily but the motivation and the interest rate would be too low. Popular songs should be used in order to rouse their attention and to create a better atmosphere, instead.

These popular songs can serve for the development of all skills in foreign/second language teaching. Songs can be useful in every aspect of language teaching such as; listening skills, oral skills, reading skills and writing skills. Songs are also useful in creating a feeling of rhythm, intonation and pronunciation. A new structure or a grammatical pattern can be introduced by means of songs which are carefully chosen for that purpose. Besides all of those, new vocabulary can be presented by means of a song. Moreover songs can be a good device for vocabulary review.

1.2. Problem

The knowledge of the vocabulary has an important role in learning a foreign language. Well-known grammar rules are not sufficient to use and to understand

English. The students of a foreign language also need to have a large knowledge of vocabulary in order to be successful in the use of that target language. Even passive skills, like reading skills and listening skills, require a wide range of the knowledge of the vocabulary.

For the students of the Civil Aviation Vocational School, active and passive skills of English play important roles. During the one year of Preparatory School Program the students are prepared for the next two years of their education which are directly related with their future occupations and which are studied in English. For that reason expanding their knowledge of the lexical items takes an important part in their first year of education in order to prepare them for the following years.

Vocabulary teaching is not an easy task for foreign language teachers. The process of expanding the knowledge of the lexical units in the target language needs motivation of the students and variety in the presentation of the vocabulary to be taught.

If songs are used as a vocabulary teaching device at elementary level, can the words taught in this way be recognized easily by the students?

1.3. Purpose of the Study

In this study it is hypothesized that the students

who are taught a hundred target vocabulary words through popular songs are more successful in the recognition aspect of this vocabulary when compared with the students who are taught the same target vocabulary words through reading passages.

1.4. Research Criteria

To conduct this research two groups were used. The subjects were the students of the Civil Aviation Vocational School who are enrolled in the Preparatory School Program. The two groups were formed according to the results of the Placement Test which was administered at the beginning of the academic year.

The groups were at the elementary level and each group consisted of 27 students who have a very limited knowledge of the target language.

During the study, the students' recognition of vocabulary was taken into consideration rather than their productive skill of the vocabulary.

For the study eight songs were selected and within these songs one hundred words were randomly selected to be the target vocabulary of the study.

The study included a teacher made vocabulary test having one hundred questions. There were four different sessions in the vocabulary test. The hundred questions were prepared in accordance with the testing techniques for passive vocabulary. The same test was

applied as pretest and posttest within the study. These tests were administered in order to evaluate the recognition rate of the randomly selected a hundred target words.

The study also included four reading passages which were written by a native speaker. The reading passages were in narrative text type and each passage included 25 of the target vocabulary of the study. The content of the reading passages were parallel to the content of the songs. The songs were about love, friendship, peace, and loneliness; therefore the same theme was given by the reading passages in order to be unbiased.

The study had four sessions and in each session there was a control group and an experimental group. In order to be objective and unbiased the roles of the groups were changed in each session. Therefore, both groups had the chance of being the control and the experimental group twice during the four sessions.

In each session, the experimental group was taught 25 of the target vocabulary through two songs where the control group was taught the same words by a reading passage. From the point of view of vocabulary teaching, the only distinctive feature between the two groups was the melody.

Original recordings were used for the selected songs to provide both a model for the melody and pronunciation and a guide for dividing words into musical syllables.

1.5. Importance of the Study

As it was stated before, vocabulary plays an important role in the study of a foreign language. Four of the major skills (oral skills, reading skills, writing skills, and listening skills) require a certain vocabulary to achieve success in those areas. In any case, even though perfect grammar is known, a large amount of vocabulary will be needed for communication in that target language.

The study aims to try a new approach in introducing new vocabulary for elementary level students in the Civil Aviation Vocational School.

1.6. Scope and the Limitations of the Study

In this study:

1. Only elementary level students were used in teaching vocabulary in two different approaches of vocabulary teaching; i.e. teaching vocabulary through songs and through reading passages.
2. Only the recognition aspect of the vocabulary was taken into consideration. The productive aspect was ignored during the study.
3. Grammar and pronunciation aspects were not taken into consideration.

4. The study only concentrated on the selected a hundred target words.
5. In the study, eight songs, five of which were popular songs, two of which were film songs, and one of which was an overall idea song were selected.
6. The same teacher-made test was used as a Vocabulary Pretest and Vocabulary Posttest.
7. All the sessions of the study were applied by the same instructor.
8. The number of students in each group was 27.

1.7. Methodological Assumptions

The following things were assumed throughout the study:

1. All the students were exposed to English language under the same conditions before the study.
2. The students were at the elementary level.
3. The students' knowledge of lexical items in the target language was at the same level.
4. All the students were motivated equally by songs.

CHAPTER II

REVIEW OF LITERATURE

2.0. Overview of the Chapter

This Chapter will review the role of songs in vocabulary teaching and it will also review testing vocabulary since the main concern of the study is to compare two vocabulary teaching approaches. A very brief summary of vocabulary testing is reviewed since the study included a pretest and a posttest in order to evaluate the improvement in the students' knowledge of the lexical units.

2.1. The Role of Songs in Vocabulary Teaching

Music is a part of development from the strains of the first lullaby and it enters a child's life from experiences in the family, in the school curriculum, and in play.

Music is one of the basic expressions of the human spirit and it has recently become an important part of foreign language teaching. Music not only accompanies the teaching, as in Suggestopedia, but it is also one of the teaching's essential elements.

The use of songs in foreign language teaching is not a new concept. In foreign language teaching songs have been widely used for different purposes. One of the major contribution of songs is the variety that it brings. Variety causes interest and this interest ends in motivation. As Faye L. Bumpass (1963: 132) states, teaching the melody and words maintain interest among students.

Songs can serve for all language skills and as Maria Monreal (1982: 44) points out a song helps learners to remember the language. Songs remind the students later of the melody and this melody brings back the words. Therefore, songs can be a good device to teach vocabulary.

Apart from the introduction of new vocabulary, songs can be useful for vocabulary review, too. Faye Bumpass (1963: 133) states that the basic reason for presenting songs is to give further drill in using familiar vocabulary as well as facilitating learning of new words and concepts through appropriate action.

For the students, learning a song and singing it with the class-mates is a very important issue.

As David Mc Donald (1982: 35) claims that this psychological battle can be won by coercing the students to sing out loud. When the students do so, the result is an excellent group feeling, a loss of certain inhibitions, a new respect for one's own voice, and the learning of whatever vocabulary, grammar, and punctuation the song has to offer. Donald also claims that by means of songs and singing the teaching/learning experience can become adventurous as well as efficient.

It is stated by Branko Ostojic (1987: 50) that a song is a good device of teaching vocabulary and he also claims that the student's memory is helped by the rhythm and melodies of the song. Branko's ideas are very like that of J. Craig Peery's. Peery (1987: 182) states that an attractive melody contributes greatly to the memorability of the text of a song. The same contribution of using songs is also stated by W.P. Veliveriya. Veliveriya (1977) claims that the use of songs helps the student to remember what he has learned in class.

Singing is motivating, but the selection of the songs to be taught cannot be a random selection. This selection involves some important points. Maria E. Monreal (1982: 45) summarizes these points as follows:

1. The quality of the recording should be appropriate as well as the clarity of the singer's voice.

2. The students should be familiar to the kind of language in lyrics.

3. The popularity of the song is effective to arise the students' interests.

When these essential points are provided, the variety that the song brings creates a high level of motivation and interest among students.

Maria E. Monreal (1982: 44) also summarizes the general aims for teaching songs in foreign language classes.

Songs:

1. add variety to a lesson
2. aid motivation
3. add a natural choral activity
4. provide maximum participation
5. help learners to remember the language
6. aid learning new sounds and give an interesting medium for pronouncing them correctly.

A song as a teaching instrument is not an easy option. To obtain the maximum value of a song and to integrate it into a lesson or course, the teacher must prepare and practice it in the same way he would any other teaching material. According to Monreal (1982: 45), teachers must constantly renew their repertoire in order to be up to date with the latest "hits" since the popularity of the song in teaching is essential.

To create a high level of interest, variety, and motivation among students a popular song can be brought into the class. As Warren Everet (1987: 41)

states, a popular song can be used as an introduction to the new concepts like new vocabulary.

Popular songs can be used as a vocabulary teaching device because they are widely known and embraced by young people. Moreover, these songs make students more sensitive to the meaning of the words since the students want to understand the material provided in English.

Besides popular songs, film songs and overall idea songs can also be used in vocabulary teaching. Fraida Dubin (1974) groups these songs under the heading of "songs that concentrate on meaning". Dubin claims that the learners can place the song in the context of a story if the song is selected from a film music. In that situation, the student's memory is helped with their visual and emotional associations. Dubin gives "West Side Story", "Sound of Music", and "The King and I" as the examples of film songs.

Fraida Dubin (1974: 4) also states that overall idea songs are convenient for vocabulary teaching as these songs express universal human feelings in a clear and vivid language. Overall idea songs are defined by Dubin (1974: 4) as songs that make comment about life and about people's place and time in the universe. Since overall idea songs have universal qualities in their motives, people with various cultural background can identify with songs that express

the common human emotions of love, friendship, despair or loneliness. Dubin (1974) gives Beatles' "Yesterday" and "Five Hundred Miles" as the examples of overall idea songs.

All of the statements and ideas of the foreign authors and experienced teachers mentioned above have an agreement on the contributions of songs as teaching devices in foreign language teaching.

2.2. Testing Vocabulary in Language Teaching

Testing is an important part of every teaching and learning experience. That is why teaching and testing are thought to be indispensable. The information that a test provides can serve as a basis for improvement.

One of the major types of tests is the achievement tests. As Rebecca M. Valette (1977: 5) states, the achievement tests measure how much the student has learned in the course of second-language instruction. Achievement tests are designed to show mastery of a particular syllabus and to measure individual performance rather than to act as a means of motivating the student (Heaton, 1975: 163).

Vocabulary tests evaluate groups of students so that the teacher can see the effectiveness of the methods and materials used for vocabulary teaching.

A test of vocabulary evaluates the student's knowledge of the meaning of certain words or word

groups. As Heaton (1975: 5) states, such a test may test the student's active vocabulary or passive vocabulary. Heaton (1975:41) defines active vocabulary as the words that the student should be able to use in speaking and in writing. Heaton (1975: 41) defines passive vocabulary as the words that the students should be able to recognize and understand when he is listening to someone or when he is reading. As it is seen from these definitions, a student's active vocabulary is different from that of his passive vocabulary.

As Lado (1961: 184) states, the size of a minimum vocabulary for speaking is a 2.000-word vocabulary where the size of the foreign language reading vocabulary of students doing successful university work in a foreign environment is closer to 10.000.

Knowing words in reading is also a very different level of mastery than knowing words so as to speak them. An active vocabulary means that a unit can be recalled almost instantaneously, put into sound through articulation of its phonemes, placed in its proper stress and intonation frame, into its proper structural position and functions with its inflectional and derivational affixes in accord with the context. A passive reading vocabulary requires only grasping the meaning from the form in its partly redundant context.

R. Lado (1961: 185)

Therefore the first task for the writer of the vocabulary test is to determine the degree to

which he wishes to concentrate on testing the students' active or passive vocabulary. His next task is then to decide whether the lexical items in the test should be taken from the spoken or the written language.

Heaton (1975: 41) makes a rough division for the selection of vocabulary according to the four major language skills:

Listening: passive/spoken
Reading : passive/written
Speaking : active/spoken
Writing : active/written

2.2.1. Recognition Techniques

Methods of testing the recognition of correct words and forms often take the following forms in tests.

2.2.1.1. Multiple-Choice Items I

Students choose the correct or the best word to complete each sentence among four choices. Vocabulary is much more usefully tested in context since it is the context that gives specific meaning and relevance to a word (Heaton, 1975: 43).

Lado (1961: 188) states that knowing a word is more than knowing one of its meanings in isolation. He claims that, the speakers of a language group its

significance when a word is used in contexts that bring out apparently hidden features of its meaning.

2.2.1.2. Multiple-Choice Items II

In this type the stem consists of a definition and the testee has to select the correct option to which the definition refers (Heaton, 1975: 43).

2.2.1.3. Matching Items I

From the list of words given, the students choose which is most suitable for each sentence having a blank. Each sentence gives a different context and every word from the list should only be used once (Heaton, 1975: 50).

2.2.1.4. Matching Items II

In this technique two lists are prepared as List A and List B. The stem, List A, consists of a lexical item and List B consists of some definitions. The testee has to select the definitions of the lexical items from List B. One to one correspondence should be avoided in this type. In other words, the number of the definitions should be more than the number of the lexical items (Heaton, 1975: 51).

CHAPTER III

THE METHOD

3.1. Selection of Subjects

This study was carried out with 54 students who are attending their first year of Preparatory School Program in the Civil Aviation Vocational School, Anadolu University.

Two groups were used in the study and the number of students in each group was 27. The groups were formed of elementary level students who were classified according to the results of the Placement Test that was administered at the beginning of the 1989-1990 academic year.

3.2. Research Design

In the study, two vocabulary teaching approaches

were used. The first approach was the use of songs in vocabulary teaching. The second approach was the use of narrative reading passages in vocabulary teaching. Since this research was a comparative study, two groups of 27 students were formed and these groups were used in the study.

After the formation of the groups, eight songs were selected for vocabulary teaching purpose. Five of the songs were popular songs, two of them were film songs and one of them was an overall idea song (cf. Sec.2.1.). The lyrics of the songs are presented in Appendices A, B, C, D, E, F, G.

Within the eight songs 100 words were randomly selected as the target words of the study. Four pairs of songs were formed and each pair had the 25 of the hundred target words.

After the selection of hundred words and the formation of four pairs of songs, 4 reading passages were written by a native speaker. The themes of the passages were parallel to the themes of the four pairs of songs.

Each reading passage included 25 of the target words. Therefore, every pair of songs had a corresponding reading passage including the same 25 words with the same content.

The study was related to the knowledge of the passive vocabulary, so the recognition aspect of the

students was taken into consideration rather than the productive aspect.

The first step of the study was the administration of a teacher-made pretest. The pretest had one hundred questions and the test included four different techniques of passive vocabulary testing (cf. Sec.2.2). Both groups had the same pretest.

The teaching process included four sessions and in each session, one of the two groups was taught two songs including the 25 of the target words. The other group was taught the same target words through a reading passage.

In each session the number of the target vocabulary words to be taught was twenty five, therefore at the end of the fourth session a hundred randomly selected words were taught to both groups either through songs or reading passages.

To avoid bias against a group or an approach the research was designed in the following manner. During the four sessions the roles of Group A and Group B were changed. According to this design both groups had the chance of being the control and the experimental groups twice during the vocabulary teaching process.

This design can be shown by the following table (Table 3.2.), to show the distribution of the two vocabulary teaching approaches:

Table 3.2.

The Design of the Experiment

	Session I	Session II	Session III	Session IV
GROUP A	Experimental 2 songs 25 words	Control 1 reading passage 25 words	Experimental 2 songs 25 words	Control 1 reading passage 25 words
GROUP B	Control 1 reading passage 25 words	Experimental 2 songs 25 words	Control 1 reading passage 25 words	Experimental 2 songs 25 words

According to this design both groups had four songs and two reading passages and the total number of the new vocabulary introduced was one hundred for each group.

3.3. Data Collection and Description of Tests Administered

3.3.1. Data Collection

As it is shown in Table 3.2. the teaching process had four sessions. In each of the sessions two songs are taught to the experimental group of that session and one reading passage is studied with the control group of that session.

For the preparation of the four sessions the first task was the selection of eight songs. After the selection of eight songs, four pairs of songs were formed. The names of the songs and the formation of pairs can be stated as follows:

- First session : Hello-Carry Me
Second session : We Are The World-I Love The Night
Third session : Endless Love-Do Re Mi
Fourth session : Yesterday-I Just Can't Stop Loving You

Within each pair of songs 25 words were randomly selected as the target vocabulary of the study. At the end of this process, every session's target 25 words were selected and the total number of the target words was 100.

The next task of the study was to have four reading passages for each session. These reading passages were written by a native speaker. Every pair of songs had an equivalent reading passage which was having the same 25 target vocabulary within its sentences. The four reading passages are presented in Appendix H, I, J, K.

The final task before the vocabulary teaching process was the preparation of the pretest. The test had four parts and the total number of the questions was one hundred. These hundred questions were formed to evaluate the recognition rate of the hundred target words of the study.

The distribution of each sessions' 25 target words was a random distribution within the questions of the vocabulary pretest. Therefore, the order of the sessions and the order of the presentation of the target words were not taken into consideration in the preparation of the pretest.

This random distribution of the words is presented in Appendix L.

3.3.2. The Vocabulary Pretest and the Vocabulary Posttest

At the beginning of the study, in order to form base-lines for the results of the posttest, a teacher-made vocabulary pretest was given to both groups. At the end of teaching process, the same test was administered as a posttest to the same groups of students. The vocabulary pretest/posttest is presented in Appendix M.

Both the Vocabulary Pretest and Posttest were prepared by the instructor in this research.

The Vocabulary Pretest and Posttest consisted of one hundred questions and the questions were designed under the four different types of passive vocabulary testing techniques (cf. Sec.2.2.1.)

All the subjects that took part in this study were given the Vocabulary Pretest on the same day at the beginning of the study and the Vocabulary Posttest was given on the same day one week after the end of the fourth session. Duration was 75 minutes for both tests.

After the application of the pretest and the posttest, according to the distribution of each sessions' target words, the recognition number out of 25 words

for each student was evaluated both for pretest and posttest. The results are presented in Appendices N, O, P, Q.

The teaching process took four weeks. Within four weeks four pairs of songs and four reading passages were studied according to the design of the experiment. (cf. Table 3.2.)

Each song was taught in one class hour (45 min). Each reading passage was taught in one class hour (45 min.).

3.4. Classroom Techniques Used for Both Approaches

The teaching methodologies for both approaches during the vocabulary teaching process can be summarized in the following sections as follows:

3.4.1. Use of Songs in Vocabulary Teaching

The teaching methodology of the songs for vocabulary teaching can be summarized as follows:

- Students listen to the original recording twice.
- Students are asked some of the words or expressions that they heard.
- Students listen to the song again.
- Simple yes/no drill is used for general comprehension.

- Then the students are handed out the lyrics of the song.
- While students are listening to the song one more time they follow from their papers.
- Then students are asked general questions related to the lyrics and the new words including the 25 target words are explained in English by sample sentences or by definitions. From the context of the lyrics and example sentences students try to guess the meaning of new words using context clues.
- The last step is singing the song in chorus while the students hear the song for the last time.

3.4.2. Use of Reading Passages in Vocabulary Teaching

The teaching methodology of the reading passages can be summarized as follows:

- Students are handed out the copies of the reading passage.
- Silent reading is done by the students to get a general idea of the text's content.
- Then the students are asked to read the first paragraph silently again.
- Students are asked questions about the paragraph and the introduction of the new words is done by explanations, by definitions and

sample sentences in English. The same explanations, definitions and sample sentences in teaching vocabulary through songs were given to the students. The context clues and the students' guessing abilities are also used in this approach.

- When all the paragraphs are studied a very short oral summary is asked from the students.

3.5. Data Analysis

Since the vocabulary pretest and posttest involves one hundred questions each correct answer was given "1" point.

In the evaluation of the results the first task was calculating the number of the correct answers for each session of the study. In other words, according to the distribution of hundred target words within the test, the correct number out of 25 questions was calculated and this process was applied four times to find out each sessions' raw scores for every student. After having raw scores of the pretest the same process was applied to the posttest (cf. Appendices N, O, P, Q).

The statistical results were calculated by the application of "paired-sample t-test" and "two-sample t-test" (cf. Appendices R, S).

"Paired-sample t-test" was used for within group comparisons and "two-sample t-test" was used for between group comparisons. These t-tests were used due to the fact that the number of subjects in each group was fewer than 30. All the results were compared at the "0.05" level of significance. The t-test table which was used throughout the study is shown in Appendix T.



CHAPTER IV

ANALYSIS OF RESULTS

In this study, the general aim is to compare two vocabulary teaching approaches. Teaching vocabulary through songs and teaching vocabulary through reading passages are compared.

To achieve this goal, a pretest and posttest were administered to two groups of elementary level students. The aim of the pretest was to obtain base-lines which will enable us to compare and evaluate the results of the posttest. The aim of the posttest, which was administered to the same groups of students after the vocabulary teaching process, was to compare the students' improvement in their passive vocabulary, which was taught by means of two approaches.

The first task in the analysis of the results is to evaluate the contribution of both approaches

in vocabulary teaching for every session of the study both for Group A and Group B.

In order to reach this goal the following null hypotheses were formulated and tested by using "paired-sample t-test" analysis (cf. Appendix R).

H_0 : There will be no significant difference between the vocabulary pretest and vocabulary posttest within Group B (after teaching 25 words through the first reading passage).

The distribution of the differences between vocabulary pretest and posttest within Group B is demonstrated in Table 4.1.

Table 4.1.

The results of t-test showing the difference between the vocabulary pretest and vocabulary posttest within Group B

Condition	n	d.f.	\bar{x}	\bar{D}	s.d.	t	p	Level of significance
Vocabulary Pretest	27	26	5.48	-4.48	3.09	-7.53	2.056	0.05
Vocabulary Posttest			9.96					

The results in Table 4.1. show that Group B reached a mean value of $\bar{x}=5.48$ in vocabulary pretest. In vocabulary posttest group B reached a mean value of $\bar{x}=9.96$. The \bar{d} value was calculated as $\bar{d}=-4.48$ and the standard deviation was calculated as $s.d.=3.09$.

The test run, which the t-value was $t = |-7.53| > p = 2.056$ at the 0.05 level of significance. Accordingly, this result indicates that there is a significant difference between the vocabulary pretest and the vocabulary posttest within Group B. Thus, we reject the null hypothesis set above.

The second null hypothesis can be formulated as follows:

H_0 : There will be no significant difference between the vocabulary pretest and vocabulary posttest within Group A (after teaching 25 words through the second reading passage).

The distribution of the differences between the vocabulary pretest and posttest within Group A is demonstrated in Table 4.2.

Table 4.2.

The results of t-test showing the difference between the vocabulary pretest and the vocabulary posttest within Group A

Condition	n	d.f.	\bar{x}	\bar{D}	s.d.	t	p	Level of significance
Vocabulary Pretest	27	26	6.29	-4.11	3.029	-7.05	2.056	0.05
Vocabulary Posttest			10.51					

The results in Table 4.2. show that Group A reached a mean value of $\bar{x}=6.29$ in vocabulary pretest where the mean value was $\bar{x}=10.51$ in the vocabulary posttest.

The \bar{d} value was calculated as $\bar{d}=-4.11$ and the standard deviation was s.d.=3.029. The t-value calculated as $t=|-7.05|>p=2.056$ at the 0.05 level of significance. Since this result shows a significant difference between the vocabulary pretest and posttest within Group A, we reject the null hypothesis set above.

The third null hypothesis can be formulated as follows:

H_0 : There will be no significant difference between the vocabulary pretest and vocabulary posttest within Group B (after teaching 25 words through the third reading passage).

The distribution of the differences between the vocabulary pretest and posttest within Group B is shown in Table 4.3.

Table 4.3.

The results of the t-test showing the difference between the vocabulary pretest and the vocabulary posttest within Group B

Condition	n	d.f.	\bar{x}	\bar{D}	s.d.	t	p	Level of significance
Vocabulary pretest	27	26	4.74	-4.29	6.52	-3.42	2.056	0.05
Vocabulary posttest			9.07					

These results show that Group B had a mean value of $\bar{x}=4.74$ in the vocabulary pretest and the mean value of vocabulary posttest was $\bar{x}=9.07$. The \bar{d} vaule was calculated as $\bar{d}=-3.42$ where the standard deviation was $s.d.=6.52$.

The test run, which the t-value was $t=|-3.42|>p=2.056$ at the 0.05 level of significance. Accordingly, this result indicates that there is a significant difference between the pretest and posttest within Group B. Thus, we reject the null hypothesis set above.

The fourth null hypothesis can be stated as follows:

H_0 : There will be no significant difference between the vocabulary pretest and the vocabulary posttest within Group A (after teaching 25 words through the fourth reading passage).

The distribution of the differences between the vocabulary pretest and posttest within Group A is demonstrated in Table 4.4.

Table 4.4.

The results of t-test showing the difference between the vocabulary pretest and the vocabulary posttest within Group A

Condition	n	d.f.	\bar{x}	\bar{D}	s.d.	t	p	Level of significance
Vocabulary Pretest			3.74					
Vocabulary Posttest	27	26	6.44	-2.703	2.740	-5.125	2.056	0.05

As can be observed from Table 4.4., Group A had a mean value of $\bar{x}=3.74$ in the pretest and the mean value of the posttest was calculated as $\bar{x}=6.44$. The \bar{d} value was $\bar{d}=-2.703$ where the standard deviation was calculated as $s.d.=2.740$.

The t-test result which is $t=|-5.125|>p=2.056$ at the 0.05 level of significance shows a significant difference in the vocabulary pretest and posttest within Group A. Thus, we reject the null hypothesis set above.

The fifth null hypothesis can be formulated as follows:

H_0 : There will be no significant difference between the vocabulary pretest and vocabulary posttest within Group A (after teaching 25 words through the first pair of songs).

The distribution of the differences between the pretest and posttest within Group A is demonstrated in Table 4.5.

Table 4.5.

The results of t-test showing the difference between the vocabulary pretest and the vocabulary posttest within Group A

Condition	n	d.f.	\bar{x}	\bar{D}	s.d.	t	p	Level of significance
Vocabulary Pretest	27	26	5.48					
Vocabulary Posttest			9.59					
				-4.11	2.136	-9.99	2.056	0.05

The results in Table 4.5. show that Group A had a mean value of $\bar{x}=5.48$. The mean value for the posttest is $\bar{x}=9.59$. The \bar{d} value was calculated as $\bar{d}=-4.11$ and the standard deviation was $s.d.=2.136$.

The t-value calculated $t=|-9.99|>p=2.056$ at the 0.05 level of significance. This result indicates a significant difference between the vocabulary pretest and posttest within Group A. Thus, we reject the null hypothesis set above.

The sixth null hypothesis can be formulated as follows:

H_0 : There will be no significant difference between the vocabulary pretest and the vocabulary posttest within Group B (after teaching 25 words through the second pair of songs).

The distribution of the differences between the pretest and posttest within Group B is shown in Table 4.6.

Table 4.6.

The results of t-test showing the difference between the vocabulary pretest and the vocabulary posttest within

Group B

Condition	n	d.f.	\bar{x}	\bar{D}	s.d.	t	p	Level of significance
Vocabulary Pretest			5.85					
Vocabulary Posttest	27	26	10.29	-4.074	3.524	-6.007	2.056	0.05

As can be observed from Table 4.6. Group B had a mean value of $\bar{x}=5.85$ in the pretest and the mean value of the posttest was calculated as $\bar{x}=10.29$ where the standard deviation was calculated as $s.d.=3.524$.

The t-test result which is $t=|-6.007|>p=2.056$ at the 0.05 level of significance shows a significant difference within Group B. Thus, we reject the null hypothesis set above.

The seventh null hypothesis can be formulated as follows:

H_0 : There will be no significant difference between the vocabulary pretest and the vocabulary posttest within Group A (after teaching 25 words through the third pair of songs).

The distribution of the differences between the pretest and posttest within Group A is demonstrated in Table 4.7.

Table 4.7.

The results of t-test showing the difference between the vocabulary pretest and the vocabulary posttest within Group A

Condition	n	d.f.	\bar{x}	\bar{D}	s.d.	t	p	Level of significance
Vocabulary Pretest	27	26	4.18	-4.93	2.56	-10.006	2.056	0.05
Vocabulary Posttest			9.14					

The results in Table 4.7. show that Group A had a mean value of $\bar{x}=4.18$ in the pretest and the Group reached a mean value of $\bar{x}=9.14$ in the posttest. The \bar{d} value was calculated as $\bar{d}=-4.93$ and the standard deviation was s.d.=2.56

The t-test result which is $t=|-10.006|>p=2.056$ at the 0.05 level of significance shows a significant difference between the vocabulary pretest and posttest within Group A. Thus, we reject the null hypothesis set above.

The eighth null hypothesis can be set as follows:

H_0 : There will be no significant difference between the vocabulary pretest and the vocabulary posttest within Group B (after teaching 25 words through the fourth pair of songs).

The distribution of the differences between the pretest and posttest within Group B is shown in Table 4.8.

Table 4.8.

The results of t-test showing the difference between the vocabulary pretest and the vocabulary posttest within Group B

Condition	n	d.f.	\bar{x}	\bar{D}	s.d.	t	p	Level of significance
Vocabulary Pretest	27	26	3.81	-5.78	3.765	-7.98	2.056	0.05
Vocabulary Posttest			9.22					

The results show that Group B had a mean value of $\bar{x}=3.81$ in the vocabulary pretest. The group reached a mean value of $\bar{x}=9.22$ in the vocabulary posttest. The \bar{d} value was calculated as $\bar{d}=-5.78$ where the standard deviation was $s.d.=3.765$.

The test run, which the t-value was $t=|-7.98|>p=2.056$ at the 0.05 level of significance. This result indicates a significant difference between the vocabulary pretest and posttest within Group B. Thus, we reject the null hypothesis set above.

All the null hypotheses set above were rejected and these results justified that in vocabulary teaching either reading passages or songs have a contribution in the students' improvement of the passive vocabulary.

The second and the main task in the analysis of the results is to compare two vocabulary teaching approaches. In this analysis both groups' posttest raw scores are used. In order to achieve this task "two-sample t-test" will be used (cf. Appendix S).

The first null hypothesis can be formulated as follows:

H_0 : There will be no significant difference between Group A and Group B in vocabulary posttest within the first session's target vocabulary words when Group A was taught through songs and Group B was taught through the first reading passage.

The distribution of the differences between the vocabulary posttests of Group A and Group B is summarized in Table 4.9.

Table 4.9

The results of the t-test showing the difference between Group A and Group B in Posttest

Condition	n	d.f.	\bar{x}	s.d.	t	p	Level of significance
Group A (songs)	27	52	9.59	4.162			
					0.092	1.644	0.05
Group B (reading passage)	27	52	9.96	3.66			

As can be observed from Table 4.9., Group A had a mean value of $\bar{x}=9.59$ and the standard deviation was calculated as $s.d.=4.162$. Group B had a mean value of $\bar{x}=9.96$ and the standard value was calculated as $s.d.=3.66$.

The t-test result which is $t=0.092 < p=1.644$ at the 0.05 level of significance. As indicated by this result there is no significant difference between Group A and Group B in vocabulary posttest. Thus, we accept the null hypothesis set above.

The second null hypothesis can be formulated as follows:

H_0 : There will be no significant difference between Group A and group B in vocabulary posttest within the second session's target

vocabulary words when Group A was taught through the second reading passage and Group B was taught through songs.

The distribution of the differences between the vocabulary posttests of Group A and Group B is summarized in Table 4.10.

Table 4.10

The results of the t-test showing the difference between Group A and Group B in Posttest

Condition	n	d.f.	\bar{x}	s.d.	t	p	Level of significance
Group B (songs)	27	52	9.58	4.702	0.120	1.644	0.05
Group A (reading passage)	27	52	10.1724	4.914			

As can be observed from Table 4.10, Group B had a mean value of $\bar{x}=9.58$ and the standard deviation was calculated as $s.d.=4.702$. Group A had a mean value of $\bar{x}=10.17$ and the standard deviation was calculated as $s.d.=4.914$.

The t-test result which is $t=0.120 < p=1.644$ at the 0.05 level of significance. As indicated by this result there is no significant difference between Group A and Group B in vocabulary posttest. Thus, we accept the null hypothesis set above.

The third null hypothesis can be formulated as follows:

H_0 : There will be no significant difference between Group A and Group B in vocabulary posttest within the third session's target vocabulary words when Group A was taught through songs and Group B was taught through the third reading passage.

The distribution of the differences between the vocabulary posttests of Group A and Group B is demonstrated in Table 4.11.

Table 4.11.

The results of the t-test showing the difference between Group A and Group B in Posttest

Condition	n	d.f.	\bar{x}	s.d.	t	p	Level of significance
Group A (songs)	27	52	9.519	5.117	-0.141	1.644	0.05
Group B (reading passage)	27	52	9.074	3.751			

As it is seen from Table 4.11, Group A had a mean value of $\bar{x}=9.519$ where the standard deviation was calculated as $s.d.=5.117$. Group B had a mean value of $\bar{x}=9.074$ and the standard deviation was calculated as $s.d.=3.751$.

The t-test result which is $t=-0.141 < p=1.644$ at the 0.05 level of significance. In other words, there is no significant difference between group A and Group B in the posttest. Thus, we accept the null hypothesis set above.

The fourth null hypothesis can be formulated as follows:

H_0 : There will be no significant difference between Group A and Group B in vocabulary posttest within the fourth session's target vocabulary words when Group A was taught through the fourth reading passage and Group B was taught through songs.

The distribution of the differences between the vocabulary posttests of Group A and Group B is demonstrated in Table 4.12.

Table 4.12.

The results of the t-test showing the difference between Group A and Group B in Posttest

Condition	n	d.f.	\bar{x}	s.d.	t	p	Level of significance
Group B (songs)	27	52	8.518	4.543	-0.447	1.644	0.05
Group A (reading passage)	27	52	6.444	4.552			

As can be seen from Table 4.12., Group B had a mean value of $\bar{x}=8.518$ and the standard deviation was calculated as $s.d.=4.543$. Group A had a mean value of $\bar{x}=6.444$ where the standard deviation was calculated as $s.d.=4.552$.

The t-test result which is $t=-0.447 < p=1.644$ at the 0.05 level of significance. This result justifies that there is not any significant difference between Group A and Group B in vocabulary posttest. Thus, we accept the null hypothesis set above.

In the following Chapter the results of the statistical analysis will be discussed in detail and suggestions for further studies will be stated.



CHAPTER V

DISCUSSION AND SUGGESTIONS FOR FURTHER STUDIES

5.1. Discussion

In this study two vocabulary teaching approaches, which are teaching vocabulary through songs and teaching vocabulary through reading passages, were compared.

The contribution of both approaches to vocabulary teaching was justified in the analysis of the results.

In the between group comparisons for the vocabulary posttest scores there was no significant difference between Group A and Group B. This result justified that although there assumed to be a difference at the beginning of the study, songs do not have a better contribution for passive vocabulary teaching than reading passages.

The two approaches compared, in fact, were not that much different from each other.

In both of the approaches the vocabulary was taught almost in the same manner. In one of the groups students had the chance of listening to the sentences in a melody that included the target words while the other group had the chance to read the passage silently which included the target words. Both groups had the copies of the songs or reading passages while they were taught the new vocabulary.

The content of the songs and the reading passages were parallel to each other, but the distinction between those materials was the forms that they had. The songs usually had shorter sentences and rhyme while the reading passages were in prose form having no rhyme.

As it was stated in Section 2.1., songs were considered to help learners to remember the vocabulary. In other words, songs or the melody was thought to help learners to recall what they have learned. In this study, the reason of using songs for vocabulary teaching originated from that aspect of songs. Starting from that point, the recall of the learned vocabulary was tried to be evaluated throughout the study.

After the statistical analysis of the results of the posttest it was found that there was not any significant contribution of the melody in the recall of the learned vocabulary.

The possible reason of this result can be discussed in terms of the time limit of the study. The application of the posttest took place one week after the last session of the teaching process. It can be claimed that, that period of time was not enough in the evaluation of the recall of the learned words which were taught through songs. These findings do not reflect a cast-iron reality but suggest that there might still be a significant difference between the groups if the posttest was administered after a longer period of time.

The contributions of using songs and original recordings to vocabulary teaching was not taken into consideration throughout the study. If that aspect was investigated a significant difference might be seen at the pronunciation level between the groups.

Although the following points were not taken into consideration the use of songs contributed a lot to the maximum participation during the teaching process where the group which was taught through the reading passage did not have that much participation in the teaching process.

As the researcher observed, songs brought variety to the lesson and that variety ended in motivation which caused maximum participation. That atmosphere in the class was enjoyable both for the teacher and the students during the vocabulary teaching process.

5.2. Suggestions for Further Studies

By this study, two vocabulary teaching approaches were compared. The following points can be beneficial for further studies:

- The vocabulary teaching process can take place in a longer period of time. It can be more than 4 weeks.
- The evaluation of the learned vocabulary can be done after a longer period of time in order to find out the contribution of songs to recall the learned vocabulary.
- A similar study can be conducted among advanced level students.
- Number of the subjects can be more than 30 in both of the groups in order to have better statistical results.
- A similar study can be conducted for the pronunciation of the words which are taught through songs.
- The productive aspect of the taught vocabulary can be taken into consideration in a similar study. The students can be asked to write paragraphs or compositions by using the learned vocabulary in appropriate contexts.
- The techniques for teaching vocabulary through songs can be further developed or new techniques can be used.

- In the selection of the subjects age, sex, social background can be taken into consideration.
- The motivation aspect of using songs in teaching process can be investigated.



REFERENCES

- Allen, V.F. (1983) Techniques in Teaching Vocabulary, London: Oxford University Press.
- Balet, S. "Needs and Notions: Implications for Motivation", English Teaching Forum (1985), 21/1: 39-40.
- Bumpass, F.L. (1963) Teaching Young Students English as a Foreign Language, U.S.A.: American Book Company.
- Çömlekçi, N. (1988) Deney Tasarımı ve Çözümlemesi, Eskişehir: Eğitim, Sağlık ve Bilimsel Araştırma Çalışmaları Vakfı Yayınları.
- Dubin, F. "Pop, Rock, and Folk Music", English Teaching Forum (1974), 12/13:1-2-3-4-5.
- Everett, W. "A Popular Song as a Teaching Instrument", English Teaching Forum (1987), 20/2: 40-41.
- Fernando, G. "Songs and Playlets", English Teaching Forum (1978), 16/4: 49.

- Harrison, A. (1983) A Language Testing Handbook, Hong Kong: The MacMillan Press Ltd.
- Heaton, J.B. (1975) Writing English Language Tests, London: Longman Group Ltd.
- Kambale, K.M. "Using Songs", English Teaching Forum (1978), 16/3: 43-44.
- Lado, R. (1961) Language Testing, New York: McGraw-Hill Book Company.
- Madsen, H.S. (1983) Techniques in Testing, London: Oxford University Press.
- McDonald, D. "Singing Can Break the Conversation Barrier", English Teaching Forum (1982), 20/4: 35.
- Monreal, M.E. "How I Use Songs", English Teaching Forum (1982), 20/3: 44-45.
- Ostojic, B. "Music Can Help", English Teaching Forum (1987), 25/3: 50-51.
- Peery, J.C., Peery, I.W. and Draper, T.W. (1987) Music and Child Development, U.S.A.: Springer-Verlag New York, Inc.
- Santibanez, E.S. "A Good Way to Use Communication Songs", English Teaching Forum (1979), 17/1: 41.
- Valette, R. (1967) Modern Language Testing, U.S.A.: Harcourt Brace Jovanovich, Inc.

APPENDICES

APPENDIX A

HELLO

I've been alone with you inside my mind
And in my dreams I've kissed your lips
A thousand times.
I sometimes see you passing outside my door
Hello. Is it me you're looking for?
I can see it in your eyes
I can see it in your smiles
You're all I've ever wanted and
My arms are open wide
'Cause you know just what to say
And you know just what to do and
I want to tell you so much I love you
I long to see the sunlight in your hair and
Tell you time and time again how much I care
Sometimes I feel my heart will over flow
Hello. I've just got to let you know
'Cause I wonder where you are and
I wonder what you do
Are you somewhere feeling lonely?
Or is someone loving you?
Tell me how to win your heart
For I haven't got a clue
But let me start by saying I love you.

(Lionel Richie)

APPENDIX B

CARRY ME

There is an answer someday we will know
And you will ask her why she had to go
We live and die, we laugh and we cry
You must take away the pain
Before you can begin to live again
So let it start my friend let it start
Let the tears come rolling from your heart
And when you need a light in the lonely nights
Carry me like a fire in your heart
There is a river rolling to the sea
You will be with her for all eternity
So hold it in your memory and begin
To make the shadows disappear
Yes, let it start my friend let it start
Let love come rolling from your heart
And when you need a light in the lonely nights
Carry me like a fire in your heart.

(Chris De Burgh)

APPENDIX C

WE ARE THE WORLD

There comes a time when we hear a certain call
When the world must come together as one
There are people dying
Oh and it's time to lend a hand to life,
The greatest gift of all
We can't go on pretending day by day
That someone, someday will soon make a change
We are all a part of God's great big family
And the truth you know love is
All we need
We are the world, we are the children
We are the ones who make a brighter day
So let's start giving
There's a choice we're making
We are saving our own lives
It's true we'll make a better day
Just you and me
We'll send them your heart
So they know that someone cares
And their lives will be stronger and free
As God has shown by turning stones to bread
And also we all must lend a helping hand
We are the world, we are the children
We are the ones who make a brighter day
So let's start giving

(43 Famous Singers)

APPENDIX D

A LOVE THE NIGHT

Come to my door, meet me at midnight
I can't wait any more and after midnight
We must head for the town
Keep under cover to a dawn
With a bag full of wine
And the night is alive look in the shadows
Because how is the time out in the shadows
To be somebody else complete transformation
From someone we are in the day
I hear a noise there is something going on
I hear a voice there is something going on
I see the boys there is something going on
And something is happened to me
I love the night, I love the night
I love the element of danger
And the ecstasy of flight
I love the night, I love the night
I love the dance with a stranger
And to feel her delight
And when the dancing is through I kick of my shoes
And I listen to the beating of my heart
After the fall then came the hunger
In the hearts of us all, oh such a hunger
That begins after dark, hides in the heart
Like a wolf that is waiting inside
I see a light, there is something going on
I look outside, there is something going on
And someone is calling to me
I love the night, I love the night
I love the element of danger
And the ecstasy of flight
I love the night, I love the the night
I love to be with a stranger and
To feel her delight
And when the morning begins
I have to get in before sunlight can
Fall upon my face

(Chris De Burgh)

APPENDIX E

ENDLESS LOVE

My love, there is only you in my life
The only thing that is right
My first love
You're every breath that I take
You're every step I make
And I, I want to share all my life with you
No one else will do
And your eyes
They tell me how much you care
Oh yes, you will always be my endless love
Two hearts, two hearts that beat as one
Our lives have just begun
Forever I'll hold you close in my arms
I can't resist your charms
And love, I'll be a fool for you
I'm sure you know I don't mind
And yes, you'll be the only one
'Cause no one can deny
This love I have inside
I'll give it all to you my love
My love, my endless love

(Diana Ross)

DO RE MI

Doe, a deer a female deer
Ray, a drop of golden sun
Me, a name I call myself
Far, a long long way to run
Sew, a needle pulling thread
La, a note to follow sol
Tea, I drink with jam and bread
That will bring us back to doe.....

(Julie Andrews)

APPENDIX F

YESTERDAY

Yesterday all my troubles seemed so far away

Now it looks as though they're here to stay

Oh, I believe in yesterday

Suddenly, I'm not half the man I used to be

There is a shadow hanging over me

Oh, yesterday came suddenly

Why she had to go I don't know

She wouldn't say

I said something wrong now I long for yesterday

Yesterday love was such an easy game to play

Now I need a place to hide away

Oh, I believe in yesterday

Why she had to go I don't know

She wouldn't say

I said something wrong now I long for yesterday

Yesterday love was such an easy game to play

Now I need a place to hide away

Oh, I believe in yesterday.

(Beatles)

APPENDIX G

I JUST CAN'T STOP LOVING YOU

Each time the wind blows I hear your voice so
I call your name
Whispers at morning our love is dawning
Heaven's glad you came
You know how I feel this thing can't go wrong
I'm so proud to say I love you
Your love's got me high, I long to get by
This time is forever love is the answer
I hear your voice now, you are my choice now
The love you bring
Heaven's in my heart at your call I hear harps
And angels sing
You know how I feel, this thing can't go wrong
I can't live my life without you
I just can't hold on, I feel we belong
My life isn't worth living if I can't be with you
I just can't stop loving you, I just can't stop loving you
And if I stop... Then tell me just what will I do
I just can't stop loving you
At night when the stars shine
I pray, in you I'll find a love so true
When morning awakes me, will you come and take me
I'll wait for you
You know how I feel I won't stop until
I hear you voice saying "I do", "I do"
This thing can't go wrong, this feeling's so strong
Well, my life isn't worth living if I can't be with you
REFRAIN:
We can change all the world tomorrow
We can sing songs of yesterday
I can say, hey.... farewell to sorrow
This is my life and I want to see you for always
I just can't stop loving you, I just can't stop loving you
And if I stop...

(Michael Jackson)

APPENDIX H

First Reading Passage

I had a dream last night. You came to me, and we sat by the fire as we watched the river rolling by. Your smiles made me happy. Our hearts were wide open. Our love overflowed like the river in the springtime. You came close to me and our lips touched. All our cares disappeared as we sat and held each other, and I hoped that this would last throughout all eternity.

The sunlight came streaming into my window, and I awoke, knowing it was all a dream. There was no river rolling by. There was no warm fire. There was no you. There was only pain as once again I felt lonely. I sat with tears on my cheeks and an ache in my heart.

You are but a memory from my dream, but you are always inside of my mind. I carry the thought of you in my heart. I wonder where you are, what you are doing, and I long for you. I keep looking for you, hoping that you will pass by my window.

I go to sleep at night, trying to find the clue as to where is the river, where is the fire. Tonight, will I find you and win you for my own? Will we sit close together and laugh again -happy that we have found each other once again- for all eternity?

APPENDIX I

Second Reading Passage

One day as I sat at the table spreading grape jam on my piece of bread, my best friend asked me what animal I would like to be if I were not a young girl. I decided I would like to be a doe.

Why did I choose a female deer? First of all, you cannot deny that a doe has a kind of charm that you cannot resist. Am I not right? Sure, I am right.

Close your eyes, and in your mind see a doe running without seeming to have a care in the world. Actually, she does care a great deal about life and how she lives. Because she can run fast she can survive. (She does not stay and fight off her foe.) With every breath, with every step, with every beat of her heart, she gracefully runs on forever and endlessly. If you try to follow her you cannot. She is too swift as she runs far into the forest of trees, even as the rays of the golden sun shine on her. Who cannot love such an animal?

That week, my friend took her thread and needle, and without dropping a stitch, she sewed a big wall hanging for me. Whenever I feel sad or lonely, I pretend I am that doe running through the trees. Whenever I look at it, it brings me great joy. I cannot really be a doe, but my friend gave me a gift of one she made—just for me.

APPENDIX J

Third Reading Passage

We live in a world full of danger. This is for certain, and we cannot pretend it is not there.

If we feel hunger, we know we must eat. If we see the face of a wolf, we know we must get away. If it is dark outside and we are tired, we know it is time to sleep. If we hear the thunderous noise of weapons or see a stranger who is pointing a gun at us, we know we must seek a safe place to be. If we drink too much wine we will get drunk. All these things we know. We do not pretend that they are not the truth. We do not pretend to be in ecstasy when someone is hurting us or holding a knife at our throat.

We cannot pretend that someone else will save the world for us. We must save the world and ourselves -not alone, but all together. Because we are young, we can see these things that sometimes adults cannot see- or do not want to see.

As young people -children- we have the gift to see things clearer and to know that we have a choice. The transformation from a dangerous world where people are dying to a world that is free and where we can all stay alive is something for which we must work together. It will not just happen by itself. The transformation will only happen if we make it happen. That is certain. That is the truth. And we have the great gift to make it happen.

If we throw a stone into the river, it will make ripples. If the "stone" is our friendship and love that we send into the "river" of people in the world, "ripples" will be made, and friendship and

love will grow. If we just hold the stone in our hand, it is just a stone for us to see. If we toss it into the river, it causes things to happen.

It is our choice to make the world brighter -by giving. It is our choice to save the world- by joining hand-in-hand with people all over the world. A family is not complete if it only has a mother- if it only has one person. The world is not a complete family without all of us in it.

We must raise our voices in friendship -raise our hands in friendship- send out pretend of friendship to everyone, if we want to have our children live to delight in seeing the bright sun rising every day- rising over a free and safe world.

The gift of friendship does not cost very much. The cost of not giving the gift of friendship is one we cannot afford.

APPENDIX K
Fourth Reading Passage

To my dearest friend,

I am writing this note to you to tell you that I am thinking of you. I want you to know that you are always on my mind, when I am awake or when I am asleep. When the wind blows on your face, I feel it also. When you are full of sorrow because you have troubles, I also feel sad, and things seem to go wrong for me. When you are happy and in high spirits, I believe that nothing can go wrong.

So dear friend, remember that we are each half of a whole, because we belong to each other. Please do not try to hide your feelings from me. Remember that that kind of game is for children; hide-and-peek.

I pray to the angels in heaven that you will be strong enough to hold on to life and happy thoughts. I am asking the angels to whisper into your ear and to tell you that you are worth more than all of the gold in the world.

Tomorrow, when the new day is dawning, and the golden sun shines brightly in the sky, look behind you at your shadow. It is really me - your other half - hanging over you, looking after you. I will always be with you.

I will always be proud to be your best friend, and we will never have to say farewell-ever. Because you are me.

APPENDIX L

1st Session	2nd Session	3rd Session	4th Session
1 inside	6 gift	2 breath	4 trouble
9 lip	7 delight	3 female	5 proud
14 long for	10 pretend	12 resist	8 whisper
15 sunlight	11 wine	16 golden	13 worth
19 tear	22 noise	17 ray	21 half
20 laugh	23 hunger	18 sew	24 shadow
37 river	26 alive	30 deny	25 awake
38 memory	27 voice	34 step	29 seem
39 eternity	28 save	35 share	32 wind
44 fire	31 wolf	36 charm	33 sorrow
45 dream	48 stone	40 deer	54 game
46 wide	49 great	41 drop	55 hide
52 win	50 ecstasy	42 jam	60 farewell
57 roll	51 choice	43 beat	62 belong
58 disappear	56 bright	47 right	68 hang
66 pass	59 face	53 forever	69 hold on
67 carry	61 send	63 bring	70 go wrong
71 over flow	65 complete	64 sure	73 believe in
72 pain	danger	78 follow	74 blow
75 smile	certain	needle	77 each
76 look for	free	doe	79 high
clue	transformation	care	80 dawn
mind	stranger	endless	angel
wonder	dark	thread	strong
lonely	truth	far	pray

APPENDIX M

Choose the letter of the correct or the best word to complete each sentence.

1. Don't let the dog come the house.
A. inspite B. far C. inside D. for
2. You could smell the whisky on his
A. table B. eye C. breath D. wallet
3. A cat may have seven babies each year.
A. female B. baby C. adult- D. old
4. The old lady next door was telling me all her
A. children B. tomorrow C. future D. troubles
5. He was a pour but a very old man.
A. blind B. rich C. tall D. proud
6. Give him a tie as a
A. punishment B. gift C. president D. warning
7. The naughty boy takes great in pulling the cat's tail.
A. sorrow B. delight C. amount D. size
8. There was the sound of steps and then there were
..... outside the door.
A. whispers B. smiles C. stairs D. ears
9. He has got a cigarette between his
A. lungs B. ears C. eyes D. lips

10. Her father tried to that nothing bad had happened after the traffic accident.
A. call B. pretend C. prevent D. produce
11. He poured her a glass of while he was shouting.
A. sugar B. joy C. wine D. bend
12. I cannot shouting little children.
A. resist B. deny C. remind D. recall
13. This film's really seeing.
A. work B. want C. worse D. worth
14. The students usually for the holidays.
A. bored B. tired C. long D. short
15. The sea turned to red in the wonderful
A. sunlight B. temperature C. day D. beans
16. She is a very beautiful girl with bright hair.
A. quiet B. dark C. bold D. golden
17. The of the sun can be very harmful in the summer.
A. fire B. rays C. bright D. beaches
18. You finish the dress by the edges.
A. coming B. putting C. sewing D. holding
19. He was sitting there with in his eyes.
A. tears B. ashes C. lashes D. points
20. Children always at the jokes of Lenny.
A. say B. sneeze C. laugh D. buy
21. The bottle was now only full.
A. tear B. half C. tea D. hall

22. Birds produce a great variety of
- A. babies B. balls C. noises D. lectures
23. In Africa there are families dying of
- A. sun B. hunger C. water D. food
24. There was a car parked down the street in the
of a tree.
- A. top B. root C. tall D. shadow
25. The noise of the wind did not her.
- A. awkward B. away C. awake D. avoid
26. If a person or animal is, they have life.
- A. allergic B. alive C. died D. dried
27. When someone speaks, you hear his
- A. noise B. voice C. ears D. lungs
28. She him from drowning.
- A. took B. saved C. came D. hold
29. There don't to be many people on campus
today.
- A. seem B. want C. come D. talk
30. Liars do not accept that they tell lies . They
that they are liars.
- A. say B. defend C. deny D. expect

Choose the letter of the correct word which the definition refers.

31. A wild animal that looks like a large dog and that
kills other animals.
- A. whale B. dolphin C. wolf D. elephant

32. A current of air that is moving across the earth's surface.
A. earthquake B. valley C. wind D. snow
33. A feeling of deep sadness or regret
A. happiness B. anger C. anxiety D. sorrow
34. The movement that you make when you lift your foot
A. kick B. neck C. step D. jump
35. If you do it with another person, you both have the use of it.
A. share B. borrow C. lend D. keep
36. The attractive and pleasant quality that a person, or a thing has.
A. farm B. chart C. chatter D. charm
37. A large amount of fresh water flowing across the land
A. lake B. river C. sea D. jungle
38. The ability to recall information, ideas and thoughts
A. memory B. souvenir C. remind D. success
39. Time without an end
A. always B. equal C. eternity D. farewell
40. A large, four-legged wild animal that eat grass and leaves
A. sheep B. deer C. tiger D. rabbit
41. A very small amount of a liquid.
A. drop B. piece C. draught D. litre

42. A food that is made by cooking fruit with a large amount of sugar.
A. juice B. jam C. honey D. wine
43. The regular movement of the heart with a regular rhythm.
A. beat B. beam C. bend D. blind
44. Hot, bright flames produced by things that are burning
A. heat B. bulb C. fire D. electricity
45. An imaginary series of events that you experience in your mind.
A. memory B. remember C. experience D. dream
46. Something that is open as far as possible
A. empty B. wild C. wide D. warm
47. Something that is clearly the best one out of a number of alternatives.
A. right B. ride C. rude D. polite
48. A hard, dry thing which is often used for building houses and walls.
A. stone B. storm C. sand D. stand
49. Large in number or amount
A. small B. great C. more D. approximately
50. An extreme emotional feeling of very great happiness
A. ecstasy B. emotion C. sorrow D. sadness
51. Some one or something that you choose.
A. choice B. change C. chance D. exchange

52. To get something after hard work or great effort
 A. peace B. win C. lost D. argue
53. Something that will happen without ending
 A. seldom B. over C. forever D. farewell
54. A form of play especially with rules
 A. joy B. theatre C. game D. toy
55. To put something in a place where it cannot easily be seen or found
 A. hide B. hire C. find D. catch
56. A place or a day which has a lot of light or sunshine
 A. ray B. sunlight C. bright D. flame
57. The drops of liquid that move quickly down a place
 A. fall B. roll C. cell D. doll
58. If something or someone goes somewhere where you can no longer see or find
 A. appear B. disappear C. approve D. disappoint
59. The front part of your head from your chin to the top of your forehead
 A. chin B. neck C. face D. shoulder
60. A rather old-fashioned word which means goodbye.
 A. see you B. welcome C. farewell D. bye

Complete the sentences by using the words in the box. Each word will be used once .

complete	go wrong	blowing	pass
hang	each	dawn	pain
belive in	smile	hold on	bring
belongs	carry	looking for	sure
high	send	over flow	follow

61. The children used to me a card at Christmas.
62. That handwriting to my sister.
63. That road will you to Atatürk Street.
64. I'm not that I would like to do that.
65. This is not a list.
66. I had to this way to reach my car.
67. The police didn't give me permission to
a gun.
68. In winter clouds usually without moving
in the sky.
69. I have to decide what to do first, a minute.
70. Our relationship cannot
71. Rivers often their banks.
72. She was crying and was feeling a great deal of
73. No one will us or what we are doing.
74. It was hard, there was a strong wind.
75. My friend welcomed me with a
76. Are you still a job?
77. The teacher keeps a card index for student.
78. You go first and I will you.
79. He kicked the ball in the air.
80. A lot of problems as the population
increases.

Find the meaning in List "B" for each word in List "A". Then write the number of the meaning in the box at the side of List "A". Note that there are 20 words in List "A" and 25 meanings in List "B".

List A

	clue
	needle
	doe
	danger
	angel
	certain
	free
	transformation
	stranger
	dark
	truth
	strong
	mind

List B

1. Having not enough light to see properly.
2. Not having any friends or not having anyone to talk to.
3. A hard black substance that is taken from under earth and burned as a fuel.
4. All the real facts about a situation, event, or person.
5. A person you do not know or have never met before.
6. The place where your thoughts are .
7. Something that seems as if you will never reach the end of it.
8. The possibility that someone may be harmed or killed.
9. People who have well developed muscles and who have great physical ability.
10. Something that gives information about the answer to a problem that you are trying to solve.
11. The ability to control your feelings so that you do not get annoyed.
12. A long, very thin piece of silk, cotton, nylon, wool, etc.
13. One of the spiritual beings that some people believe they live with God in heaven .

List A

	wonder
	lonely
	care
	endless
	thread
	far
	pray

List B

14. Someone or something that is not restricted, controlled or limited.
15. The complete change in something's or someone's appearance or function.
16. Having no doubt in your mind about something.
17. A feeling of concern, anxiety or worry about something or someone.
18. A large area of land that is used raising animals or growing crops.
19. The things that a ship, plane is carrying.
20. A long distance from somewhere or something.
21. A brush that you use to brush your hair.
22. A small, very thin piece of polished metal which is used for sewing.
23. To think about something with curiosity and to want to know more about it.
24. An adult female rabbit or deer.
25. To speak to the God in order to give thanks or to ask for his help.

Prepared by Füsün Moğol

APPENDIX N

Table 1

Subjects	Vocabulary Pretest	Vocabulary Posttest
1	7	14
2	1	10
3	7	12
4	8	11
5	7	6
6	6	11
7	4	10
8	9	14
9	7	6
10	7	11
11	9	16
12	4	4
13	5	8
14	7	14
15	5	10
16	1	5
17	7	5
18	7	15
19	3	8
20	3	7
21	4	10
22	7	19
23	5	8
24	4	10
25	4	8
26	8	7
27	2	10

Table 2

Subjects	Vocabulary Pretest	Vocabulary Posttest
1	5	10
2	6	4
3	8	12
4	4	12
5	4	6
6	13	13
7	8	11
8	11	14
9	4	14
10	3	6
11	3	15
12	6	10
13	9	13
14	7	15
15	1	7
16	2	6
17	9	11
18	3	7
19	10	12
20	16	18
21	2	7
22	10	13
23	3	5
24	4	12
25	2	3
26	6	8
27	16	24

Table 3

Subjects	Vocabulary Pretest	Vocabulary Posttest
1	4	6
2	3	5
3	6	9
4	9	15
5	6	6
6	5	9
7	4	6
8	8	15
9	3	9
10	4	10
11	8	15
12	0	5
13	4	6
14	3	11
15	10	14
16	4	5
17	8	7
18	7	17
19	1	8
20	1	6
21	3	3
22	4	14
23	4	9
24	5	10
25	5	9
26	6	9
27	3	7

APPENDIX 0

Table 4

Subjects	Vocabulary Pretest	Vocabulary Posttest
1	2	4
2	2	1
3	3	9
4	1	3
5	2	5
6	7	4
7	2	6
8	5	7
9	3	6
10	5	6
11	5	6
12	3	6
13	5	5
14	3	7
15	0	4
16	0	2
17	6	10
18	2	1
19	8	14
20	14	17
21	2	5
22	4	11
23	4	4
24	3	8
25	0	0
26	1	4
27	9	19

Table 5

Subjects	Vocabulary Pretest	Vocabulary Posttest
1	6	8
2	3	6
3	3	9
4	1	9
5	3	6
6	10	16
7	7	19
8	9	14
9	5	8
10	7	9
11	9	11
12	4	9
13	3	7
14	4	10
15	1	6
16	2	5
17	8	9
18	3	5
19	9	15
20	15	17
21	3	11
22	8	13
23	3	7
24	7	10
25	2	5
26	1	3
27	12	21

Table 6

Subjects	Vocabulary Pretest	Vocabulary Posttest
1	9	13
2	6	8
3	7	15
4	8	16
5	6	7
6	6	12
7	4	16
8	10	15
9	5	8
10	6	15
11	9	15
12	3	4
13	3	7
14	8	9
15	12	12
16	1	4
17	8	11
18	9	15
19	0	4
20	5	10
21	6	6
22	3	12
23	5	11
24	5	6
25	3	9
26	6	10
27	5	8

APPENDIX P

Table 7			Table 8			Table 9		
Subjects	Vocabulary Pretest	Vocabulary Posttest	Subjects	Vocabulary Pretest	Vocabulary Posttest	Subjects	Vocabulary Posttest Group A	Vocabulary Posttest Group B
1	1	4	1	5	16	1	8	14
2	2	4	2	3	7	2	7	10
3	2	11	3	5	14	3	9	12
4	2	6	4	6	14	4	9	11
5	2	6	5	5	7	5	6	6
6	9	15	6	4	6	6	16	11
7	5	11	7	4	15	7	9	10
8	6	11	8	4	15	8	14	14
9	2	7	9	3	9	9	8	6
10	4	8	10	3	5	10	9	11
11	5	12	11	5	13	11	11	16
12	7	13	12	0	3	12	9	4
13	1	5	13	3	5	13	7	8
14	3	12	14	10	11	14	10	14
15	0	6	15	9	8	15	6	10
16	2	3	16	4	2	16	5	5
17	4	13	17	6	6	17	9	5
18	1	2	18	3	13	18	5	15
19	9	16	19	1	5	19	15	8
20	9	17	20	2	10	20	17	7
21	3	6	21	1	1	21	11	10
22	7	17	22	1	10	22	13	19
23	3	5	23	3	13	23	7	8
24	3	6	24	2	10	24	10	10
25	3	5	25	4	4	25	5	8
26	1	5	26	5	10	26	3	7
27	17	21	27	2	7	27	21	10

APPENDIX Q

Table 10

Subjects	Vocabulary Posttest Group B	Vocabulary Posttest Group A
1	13	10
2	8	4
3	15	12
4	16	8
5	7	6
6	12	13
7	16	11
8	15	14
9	8	14
10	15	6
11	15	15
12	4	10
13	7	13
14	9	15
15	12	7
16	4	6
17	11	11
18	15	7
19	4	12
20	10	18
21	6	7
22	12	13
23	11	5
24	6	12
25	9	3
26	10	8
27	8	24

Table 11

Subjects	Vocabulary Posttest Group A	Vocabulary Posttest Group B
1	4	6
2	4	5
3	11	9
4	6	15
5	6	6
6	15	9
7	11	6
8	11	15
9	7	9
10	8	10
11	12	15
12	13	5
13	5	6
14	12	11
15	6	14
16	3	5
17	13	7
18	2	17
19	16	8
20	17	6
21	6	3
22	17	14
23	5	9
24	6	10
25	5	9
26	5	9
27	21	7

Table 12

Subjects	Vocabulary Posttest Group B	Vocabulary Posttest Group A
1	16	4
2	7	1
3	14	9
4	14	3
5	7	5
6	6	4
7	15	6
8	15	7
9	9	6
10	5	6
11	13	6
12	3	6
13	5	5
14	11	7
15	8	4
16	2	2
17	6	10
18	13	1
19	5	14
20	10	17
21	1	5
22	10	11
23	13	4
24	10	18
25	4	0
26	10	4
27	7	19

APPENDIX R

Formulas Used in Paired-sample T-test

Hypotheses : $H_0: \bar{d} = 0$

$H_1: \bar{d} \neq 0$

Standard
Deviation

$$s = \sqrt{\frac{\sum d^2 - \frac{(\sum d)^2}{n}}{n - 1}}$$

Variance

$$s_d^2 = \frac{s}{\sqrt{n}}$$

t-statistics

$$t = \frac{\bar{d}}{s_d}$$

APPENDIX 5

Formulas Used in Two-sample T-test

Hypotheses : $H_0 : \bar{x}_1 = \bar{x}_2$

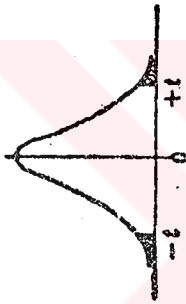
$H_1 : \bar{x}_1 \neq \bar{x}_2$

Standard
Deviation :
$$S = \sqrt{\frac{n_1 s_1^2 + n_2 s_2^2}{n_1 + n_2 - 2}}$$

t-statistics :
$$t = \frac{\bar{x}_1 - \bar{x}_2}{S \sqrt{\frac{1}{n_1} + \frac{1}{n_2}}}$$

APPENDIX I

T-Ratio Table For The T-test Analysis in This Study



Barbostik derecesi	P = 0.9	0.8	0.7	0.6	0.5	0.4	0.3	0.2	0.1	0.05	0.02	0.01
1	0.168	0.325	0.510	0.727	1.000	1.378	1.963	3.078	6.314	12.708	31.821	63.657
2	0.142	0.289	0.445	0.617	0.816	1.061	1.386	1.886	2.920	4.303	6.866	9.925
3	0.137	0.277	0.424	0.584	0.765	0.978	1.250	1.638	2.353	3.182	4.541	5.841
4	0.134	0.271	0.414	0.569	0.741	0.941	1.199	1.533	2.132	2.776	3.747	4.604
5	0.132	0.267	0.408	0.559	0.727	0.920	1.153	1.478	2.015	2.571	3.365	4.032
6	0.131	0.265	0.404	0.553	0.718	0.906	1.124	1.440	1.943	2.447	3.143	3.707
7	0.130	0.263	0.402	0.549	0.711	0.896	1.119	1.415	1.895	2.365	2.998	3.499
8	0.130	0.262	0.399	0.546	0.706	0.889	1.108	1.397	1.860	2.308	2.896	3.355
9	0.129	0.261	0.398	0.543	0.703	0.883	1.100	1.383	1.833	2.262	2.821	3.250
10	0.129	0.260	0.397	0.542	0.700	0.879	1.093	1.372	1.812	2.228	2.764	3.169
11	0.129	0.260	0.396	0.540	0.697	0.876	1.033	1.363	1.796	2.201	2.718	3.105
12	0.128	0.259	0.395	0.539	0.695	0.873	1.083	1.356	1.782	2.179	2.681	3.055
13	0.128	0.259	0.394	0.538	0.694	0.870	1.079	1.350	1.771	2.160	2.650	3.012
14	0.128	0.258	0.393	0.537	0.692	0.868	1.076	1.345	1.761	2.145	2.624	2.977
15	0.128	0.258	0.393	0.536	0.691	0.866	1.074	1.341	1.753	2.131	2.602	2.947
16	0.128	0.258	0.392	0.535	0.690	0.865	1.071	1.337	1.746	2.120	2.583	2.921
17	0.128	0.257	0.392	0.534	0.689	0.863	1.069	1.333	1.740	2.110	2.567	2.898
18	0.127	0.257	0.392	0.534	0.688	0.862	1.067	1.330	1.734	2.101	2.552	2.878
19	0.127	0.257	0.391	0.533	0.688	0.861	1.066	1.328	1.729	2.093	2.539	2.861
20	0.127	0.257	0.391	0.533	0.687	0.860	1.064	1.325	1.725	2.086	2.528	2.845
21	0.127	0.257	0.391	0.532	0.686	0.859	1.063	1.323	1.721	2.080	2.518	2.831
22	0.127	0.256	0.390	0.532	0.686	0.858	1.061	1.321	1.717	2.074	2.508	2.819
23	0.127	0.256	0.390	0.532	0.685	0.858	1.060	1.319	1.714	2.069	2.500	2.807
24	0.127	0.256	0.390	0.531	0.685	0.857	1.059	1.318	1.711	2.064	2.492	2.797
25	0.127	0.256	0.390	0.531	0.684	0.856	1.058	1.316	1.708	2.060	2.485	2.787
26	0.127	0.256	0.390	0.531	0.684	0.856	1.058	1.315	1.706	2.056	2.479	2.779
27	0.127	0.256	0.389	0.531	0.684	0.855	1.057	1.314	1.703	2.052	2.473	2.771
28	0.127	0.256	0.389	0.530	0.683	0.855	1.056	1.313	1.701	2.048	2.467	2.763
29	0.127	0.256	0.389	0.530	0.683	0.854	1.055	1.311	1.699	2.045	2.462	2.756
30	0.127	0.256	0.389	0.530	0.683	0.854	1.055	1.310	1.697	2.042	2.457	2.750
∞	0.12566	0.25335	0.38532	0.52440	0.67449	0.84162	1.03643	1.28155	1.64485	1.95896	2.32634	2.57582