Marmara University
Institute of Educational Sciences
Department of Foreign Language Education
English Language Teaching

TEACHING ENGLISH VOCABULARY THROUGH LATINATE WORD PARTS TO UNDERGRADUATE STUDENTS LEARNING ENGLISH AS A FOREIGN LANGUAGE

YABANCI DİL OLARAK İNGİLİZCE ÖĞRENEN ÜNİVERSİTE ÖĞRENCİLERİNE LATİN KÖKENLİ SÖZCÜK BİRİMLERİYLE İNGİLİZCE KELİME ÖĞRETİMİ

Master's Thesis

Hayriye KARLIOVA

Istanbul, 2009

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English Language Teaching

APPROVAL

This certifies that the thesis paper "**Teaching English Vocabulary Through Latinate Word Parts to Undergraduate Students Learning English as a Foreign Language**" prepared by Hayriye KARLIOVA and pesentated to the Examining Committe on the 23rd of October 2009 satisfies all the requirements as a THESIS FOR THE DEGREE OF MASTER OF ARTS.

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ABSTRACT

This experimental study is based on the assumption that teaching English vocabulary through Latinate word parts to undergraduate students learning English as a foreign language is an efficient means of facilitating vocabulary acquisition and also provides a useful tool for expanding the depth and breadth of lexical knowledge.

The study was carried out at the department of English language teacher training in a state university in Turkey. The participants were the freshmen students in their first semester and the senior students in their seventh semester of academic study. Freshman class was randomly divided into two in order to form the treatment and control groups, and the senior class functioned as the second control group.

A pre-test was administered to freshman students as to assess their knowledge of Latinate English words, and only the treatment group received instruction on the Latinate word parts. The semester-long teaching covered ten roots, ten prefixes and fourteen suffixes, and none of the words in the pre-test was included in the instruction program. In the course of the semester, also a mid-term and a final test were utilized to gauge the progress the treatment group students made.

At the end of the semester, the pre-test was administered once more as the post-test to both the treatment and freshman class control group students, as well as to the senior class control group participants in order to observe the effect of Latinate word-part instruction on vocabulary learning. Furthermore, interviews with the treatment group students who volunteered to take part in were carried out as to elicit their opinions on the instruction program.

The results of this study indicate a statistically significant difference between the post-test scores of the treatment and the freshman control group students which suggests that Latinate word-part instruction has a positive effect on English vocabulary acquisition. The analysis of scores obtained from the mid-term and the final tests also indicates a statistically significant increase, implying a meaningful benefit derived from the Latinate word-part instruction carried out.

Comparison of the post-test scores obtained by the treatment group students with those of the senior class control group participants who took the same test but who did not receive the same instruction suggests that explicit teaching of Latinate word-parts helps students to acquire Latinate vocabulary ahead of time, balancing the three years' advancement of the senior-class members.

The analysis of student opinions obtained during the interview sessions show that treatment group students were satisfied with the Latinate word-part instruction they received. The interviewees expressed that they became cognizant of the benefits of learning vocabulary with the aid of roots and affixes, and that, as the future teachers of English, they were willing to utilize the system in both learning vocabulary themselves and also in teaching their prospective students.

Key-words: Latinate roots, Latinate word-parts, Vocabulary learning, Word knowledge, Word knowledge tests.

ÖZET

YABANCI DİL OLARAK İNGİLİZCE ÖĞRENEN ÜNİVERSİTE ÖĞRENCİLERİNE LATİN KÖKENLİ SÖZCÜK BİRİMLERİYLE İNGİLİZCE KELİME ÖĞRETİMİ

Hayriye Karlıova

Bu deneysel çalışma, temelini, yabancı dil olarak İngilizce öğrenen üniversite öğrencilerine Latin kökenli sözcük birimleriyle İngilizce kelime öğretimi vermenin, sözcük dağarcığı edinimini kolaylaştıran etkin bir yöntem olduğu ve aynı zamada, sözcüksel bilginin hem derinliğini arttıran hem de kapsamını genişleten yararlı bir araç sağladığı varsayımından almaktadır.

Çalışma, Türkiye'deki bir devlet üniversitesinin İngilizce öğretmenliği bölümünde gerçekleştirilmiştir. Katılımcılar akademik çalışmalarının ilk dönemindeki birinci sınıf öğrencileri ile yedinci dönemindeki son sınıf öğrencileridir. Birinci sınıf öğrencileri deney ve kontrol gruplarını oluşturmak üzere tarafsız yöntemle ikiye ayrılmış, son sınıf öğrencileri ise ikinci kontrol grubu olarak işlev görmüştür.

Birinci sınıf öğrencilerine, Latin kökenli İngilizce sözcüklere ilişkin bilgilerini ölçmek için bir ön-test uygulanmış ve yalnızca deney grubuna bu testteki sözcükleri oluşturan Latin kaynaklı kök ve ek birimlerini kapsayan bir eğitim verilmiştir. Bir dönemlik bu eğitim, on sözcük kökü, on ön ek, ve on dört son ek içermektedir; ayrıca, ön-testteki İngilizce sözcüklerin hiçbiri bu eğitim programına dahil edilmemiştir. Öğrencilerin gelişimini gözlemek amacıyla, çalışma boyunca bir ara dönem, bir de dönem sonu sınavı yapılmıştır.

Dönem sonunda ise, sözcük öğrenimi konusunda verilen eğitimin etkisini görmek amacıyla, dönem başında uygulanan test, bu defa son-test olarak hem birinci sınıf deney grubu ve kontrol grubu öğrencilerine, hem de son sınıf kontrol grubu öğrencilerine tekrar uygulanmıştır. Ayrıca, verilen kelime eğitimi konusundaki öğrenci düşüncelerini almak amacıyla, gönüllü olarak katılmayı kabul eden deney grubu öğrencileriyle mülakat yapılmıştır.

Bu çalışmadan elde edilen sonuçlar, deney grubu öğrencilerinin son testten aldığı puanlar ile, birinci sınıf kontrol grubu öğrencilerinin aynı testten aldığı puanlar karşılaştırıldığında, Latin kaynaklı köken bilgisi eğitiminin İngilizce sözcük dağarcığı edinimi üzerinde istatistiksel olarak anlamlı bir yarar sağladığını göstermektedir. Dönem arasında ve dönem sonunda yapılan gelişim testlerinden alınan puanların analiz sonuçları da, uygulanan Latin kökenli sözcük bilgisi eğitiminden yarar sağlandığını gösteren, istatistiksel olarak anlamlı bir artışa işaret etmektedir.

Birinci sınıf deney grubu öğrencilerinin son-testten aldığı puanlarla, köken bilgisi eğitimini almamış olan son sınıf öğrencilerinin aynı testten aldığı puanların karşılaştırması, öğrencilere sözcük kökenlerinin doğrudan öğretilmesinin, onların Latin kaynaklı kelime dağarcığını, son sınıf öğrencileri lehine olan üç yıllık öğrenim farkını dengeleyecek biçimde, önceden edinmeleri konusunda yardımcı olabileceğine işaret etmektedir.

Yapılan mülakatlardan elde edilen öğrenci görüşlerinin analizi, deney grubu öğrencilerinin Latin kökenli kelime birimleri konusunda aldıkları eğitimden memnun olduklarını göstermektedir. Görüş bildiren öğreciler, kök ve ekler yardımıyla sözcük dağarcığı edinmenin yararlarının farkına vardıklarını ve, geleceğin İngilizce öğretmenleri olarak, bu sistemi hem kendileri öğrenmek istediklerini, hem de ileride öğrencilerine öğretme konusunda istekli olduklarını iletmişlerdir.

Anahtar sözcükler: Latin kökenli sözcük birimleri, Latince kökler, Sözcük bilgisi, Sözcük edinimi, Sözcük bilgisi testleri.

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CHAPTER I
INTRODUCTION

1.1. BACKGROUND TO THE STUDY

English has become a major world language; the most widely used communication means in science, literature, trade, and media, as well as in cultural interaction in an ever-growing scope of opportunities for international travel and for contact through technologically advanced means. It is estimated that "one out of four people worldwide speak English with some degree of competence" (AskOxford, 2009). Apart from the countries wherein English is the official language or has a special status, numerous countries around the world designate English as the primary foreign language to be taught at schools. Learning it has become the ultimate goal for the non-native speakers who are aware of the indispensable role English plays in the world today. Thus, it is of crucial importance for the learners to achieve competence in all four skills, namely listening, speaking, reading, and writing, as to be able to communicate globally at a proficient level.

Achieving language competence is a difficult task particularly in a foreign language learning environment for the obvious reason of the learners' not having adequate practice mainly in speaking and also largely in listening. Writing is a skill that develops only after a certain level of language proficiency is reached not only in a second or foreign language, but also in one's own native tongue. Thus, particularly foreign language learners have to rely mainly on their limited reading skills to fill the gap created by the lack of practice in listening and speaking until they attain competence in reading.

Reading comprehension, on the other hand, chiefly depends on vocabulary knowledge which is the key factor for language learners, whether foreign, second, or native. Folse (2004), pointing out the significance of vocabulary knowledge, states that it is critically important for communication and that the learners are aware of this fact since they experience the frustration of not being able to express themselves in real life situations even after having completed many courses "based on grammar or a combination of grammar and communication strategies rather than vocabulary."

He cites Wilkins' (1972, p. 111) most quoted statement on the significance of word knowledge: "While without grammar very little can be conveyed, without vocabulary nothing can be conveyed" (p. 23). Lewis (1993), who emphasizes the lexical nature of language, asserts that "grammar as structure is subordinate to lexis" and quotes a statement made by Krashen at a conference in Milan in 1987: "When students travel, they don't carry grammar books, they carry dictionaries" (iii).

Emphasizing the essence of words and phrases in language learning, Coady (1997) calls attention to the need for systematic vocabulary instruction. Referring to college students, who "need to use a language for challenging academic purposes such as reading advanced, authentic, academic texts, and moreover, have only a limited amount of time in which to acquire the skills to carry out this task," he points out that they require assistance "in order to improve their acquisition skills" (p. 288).

Bellomo (2005), also drawing attention to prominence of vocabulary knowledge in academic achievement, states that deficient vocabulary is an impediment in reading which plays an important role in students' success. He indicates that the students attending college preparatory reading classes "are in need of targeted assistance to improve their ability to comprehend text" (p. 3), whether they are native or non-native speakers of English.

Understanding academic texts is a difficult task, but it is not the only undertaking college students need to accomplish with respect to language skills. They face difficulties also in comprehending lectures (Folse, 2004; Nattinger & DeCarrico, 1992). The vocabulary items employed in college texts and lectures are mostly low-frequency level, a fact that poses a problem for natives and non-natives alike since these words are not often encountered in standard readings and speech and are vast in number.

Although the enormous quantity of words to be acquired creates a great difficulty for the language learners, it presents an exceptional versatility and flexibility to language users. As Denning, Kessler, & Leben (2007) point out, the unsurpassed richness of its vocabulary gives English language a distinguished power that endows its users with a privilege in expressing distinctions in meanings with subtlety by means of a

wealth of word options; a privilege well worth the effort put in to overcome the difficulties in learning an invaluable treasure of words. Fortunately, the language itself also presents an indispensable tool for solving the problems faced in vocabulary acquisition: learners are not left to rely on rote memorization since most low-frequency words are composed of roots and affixes that are much less in number and act as mnemonic devices not only for deriving the meanings but also for retaining and recalling the words composed of these word-parts.

Referring to these mnemonic devices that form complex words, Nation (2001) states that there are two steps involved in word-part strategy: "breaking the unknown word into parts," and "relating the meaning of the parts to the meaning of the word" (p. 278), the former of which entails word-part awareness, and the latter, knowledge of the meanings of common word parts. If the learners are aware of these morphological constituents and recognize their meanings, they can predict the meaning of a word they have not encountered before by putting these pieces together to arrive at the dictionary definition of the unknown word.

The roots and affixes forming the low-frequency Latinate words in English are mostly of Greco-Latin origin, borrowed either directly from Latin and Ancient Greek or, following the classical era, through French and other languages of Indo-European descent. Learners of English whose native languages are of Indo-European origin have the advantage of being intuitively aware of, although not necessarily well-informed about, these word parts whereas the learners whose mother tongues are the descendents of other language families lack this privilege and, thus, must learn these word building blocks deliberately. In both cases, and, as Bellomo (2005, 2009) indicates, even in the case of native speakers, explicit teaching is essential in order to make the English language learners and users become more knowledgeable about these morphological elements as to help them attain the skills in employing these invaluable vocabulary acquisition tools.

1.2. PURPOSE OF THE STUDY

The purpose of this experimental study was to observe the effect of a semester-long instruction in Latinate word-parts on English vocabulary knowledge of freshmen

university students whose native tongue is not of Indo-European origin and who learn English as a foreign language. The instruction program carried out and the tests administered during this study were specifically designed for this group of students as to serve the purpose of the study. The pre- and post-test scores were analyzed to find out whether they indicated a statistically significant difference pointing out the effect of Latinate word-part instruction on vocabulary acquisition.

1.3. SIGNIFICANCE OF THE STUDY

The participants of this study were the students attending English language teachers' school at a state university in Turkey and were required to pass two examinations prior to their admission to the freshman class: a university placement test and an English proficiency test. The former, administered country-wide by the national testing center, assesses students' linguistic knowledge in both Turkish and English and also their scholastic aptitudes in social sciences in Turkish, whereas the latter, administered by the university, gauges their linguistic capacity in English. Based on the passing-scores obtained from both tests, the students' overall English proficiency level is officially considered adequate to follow the courses in the program; however, the level of vocabulary contained in the authentic academic texts that students are expected to comprehend is generally above their lexical competence. This is not at all specific only to foreign language learners; as research on the issue indicates (e.g., Tschirner, 2004), second language learners and, to an extent, native speakers pursuing their tertiary education also face the same lexical deficiency problem especially at the beginning of their academic study. Furthermore, the outstanding number of academic and low-frequency words to be learned makes it even harder to close the gap and become equipped with an extensive vocabulary.

In this connection and in line with the purpose of this study which takes its base from the hypothesized effectiveness of teaching Latinate word parts to undergraduate students as a useful tool for enlarging their vocabulary, the researcher designed an instruction program to be carried out for a semester. A pre-test was administered to assess the freshmen students' existing knowledge of the academic and low-frequency level words exclusively composed of the Latinate word parts selected for this study. Then, these students were randomly divided to form the treatment and the freshman

control groups, and only the former group received instruction specifically on the roots and affixes constituting the words that were assessed in the test but purposefully not covered in the teaching program. At the end of the semester, the same test was given to both groups as the post-test in order to evaluate the effect of the instruction given. The results obtained from both tests were compared as to determine whether teaching Latinate word parts had any effect on vocabulary acquisition of the treatment group students, and if so, what the extent of its effect was on these students' vocabulary development as compared with that of the freshman control group students who did not receive the same instruction but attended regular academic courses.

Additionally, the senior students who were attending the same program at the same school but who had not received the same word-part instruction were given the post-test only as to assess their vocabulary knowledge of the selected Latinate words after three and a half years of academic study. The senior students were taken as the second control group since they were also learners of English as a foreign language whose mother tongue was not of Indo-European origin. The only difference between the treatment and senior control groups was the length of academic study in favor of the latter which could be a privilege in acquiring vocabulary. The purpose of administering the same test to senior class students was to compare their test scores with those of the treatment group students as to determine whether the seven semesters of academic instruction had any precedence over a semester-long word-part instruction with respect to low-frequency level words and academic vocabulary acquisition.

The present experimental research may prove significant in three ways:

1) It may provide an example for further study to cover a wider population of students for longer learning periods and to include an expanded range of roots and affixes as to test the effect of vocabulary teaching through Latinate word parts on a wider scale.

2) It may reaffirm the efficacy of explicit vocabulary teaching.

3) It may offer students a practical tool to utilize progressively for lifetime learning of advanced level vocabulary.

1.4. ASSUMPTIONS

The major assumptions of this experimental study are the following:

1) Students who are expected to comprehend academic texts and lectures at a university where the language of instruction is English need to acquire an enormous number of words under the pressure of time limit and work load; thus, the student population face difficulties in vocabulary acquisition.

2) Prospective English language teachers as foreign language learners at the beginning of their tertiary education at an institute wherein English is the medium of instruction represent the student population who face difficulties in vocabulary acquisition at university level.

3) University freshmen students' vocabulary knowledge should be at the 5,000-word frequency level since they are required to follow the academic texts and lectures.

4) It is important for undergraduate university students to learn especially the academic vocabulary items and the low-frequency words.

1.5. LIMITATIONS OF THE STUDY

The study bears the following limitations:

1) The conclusions reached based on the results obtained from the assessments of student performance after the Latinate word-part instruction are limited to the described participants and setting.

2) The results presented are prescribed also by the limited length of instruction carried out in this study.

3) The assessed student performance is limited to the English words comprising the Latinate word parts covered during the treatment.

1.6. DEFINITION OF THE TERMS

The following terms employed in this study are used with the meanings given in the corresponding definitions:

2,000-word Level List / General Service List (GSL): A word list compiled by West in 1953 and updated by Baumann and Culligan in 1995. It contains 2,000 most frequently used words in English. Detailed information on the list is provided in the site http://jbauman.com/index.html and its sub-lists are presented in the site http://www.nottingham.ac.uk/~alzsh3/acvocab/wordlists.htm#gsl.

5,000-word Level List: A list of 3,000 words excluding the aforementioned 2,000 words in the GSL (http://www.edict.com.hk/lexiconindex/frequencylists/words2-5k.htm and http://www.edict.com.hk/lexiconindex/frequencylists/words2000.htm respectively).

Academic Word List (AWL): A list of 570 word-families prepared in 1998 by Coxhead (2000). It does not cover the most frequent 2,000-words of the General Service List (GSL), and it replaces Paul Nation's University Word List (UWL). Detailed information, headwords, and sub-list families are provided in the following site: http://www.victoria.ac.nz/lals/resources/academicwordlist/

Active / Productive Vocabulary: The words, meanings of which are both understood by the language learners and users when heard or read and are available for active use in speech and writing.

Acquisition / Learning: In this study, both terms are used synonymously to refer to gaining possession of knowledge. In other words, both terms mean achieving mastery of a language and its vocabulary whether it is the second or the foreign language, regardless of the distinction between *acquisition* in a natural environment (subconscious) and *learning* through formal training at schools (conscious).

Affix: An inflectional or derivational particle added either in front (Prefix) of or to the end (Suffix) of a root.

Approach / Method: In linguistic terminology, an 'approach' in language teaching is principally theoretical and designates the assumptions underlying the teaching strategies, and a 'method' is basically procedural and indicates teaching strategies employed. Although both terms are distinctively defined in theory, the term *method* in practice was actually used in a broader sense, often overlapping with *approach*, a fact rendering the latter less distinct than defined, and thus, its boundaries more blurred. In her attempt to summarize the history of vocabulary teaching, the researcher of the present study paid attention to the chronology of language teaching trends and not to the distinction of approaches and methods. The latter was not the primary emphasis of the study, and nor would it be possible to follow a theoretical approach-to-method thread for the reasons explained above.

First Language / Mother Tongue / Native Language (L1): One's primary language learned from infancy on.

Foreign Language (FL): A language learned in an environment where the medium of communication is not the language being learned but is one's own mother tongue.

Freshmen Students: In this study, prospective teachers of English attending the first semester of their tertiary education.

Freshman Control Group: Freshman class students, 61 in number, participating in the study and contributing as the first control group.

Greco-Latin: Having both Greek and Latin characteristics.

Indo-European Languages: The family of languages that includes such branches as *Germanic* (e.g., English, German, Swedish), *Italic* (Latin and the Romance languages such as Italian and French), *Celtic* (e.g., Welsh, Irish), *Hellenic* (Greek), *Baltic* (e.g., Lithuanian), and *Slavic* (e.g., Russian, Polish, Bulgarian), as well as the Indo-Iranian branch that includes *Indic* (e.g., Sanskrit, Hindi), and *Iranian* (e.g., Persian, Pashto), all of which share a common ancestor.

Language Preparatory Course: Compulsory language classes for the university freshmen students who do not pass the English language proficiency level test, and thus, do not qualify to take the main academic courses.

Latinate: Although the dictionary definition of this adjective is "*derived from Latin*" (American Heritage, 2000; Random House, 2000), the term is used also to mean "*borrowed from Latin, whether directly or indirectly*" (Denning, Kessler, & Leben, 2007). The authors point out that it may be of importance for a historian to indicate what the exact origin of a word is, but in general, when a word "looks and behaves like a Latin borrowing," it is called Latin, whereas "in cases where we are not sure, or do not care, whether a word is really Latin or was modified by its descent through French or the Romance languages, we can always hedge and call it Latinate" (p.29).

Off-list Words: Words that are not included in the most frequent 2,000-words (GSL) and the academic words (AWL & UWL) are considered off-list. In this study, however, the term off-list is used to represent those words excluding also the words contained in the 5,000-word Level List for the purpose of specifically testing the latter group distinctively along with the academic words.

Passive (Receptive) Vocabulary: Words, the meanings of which are understood by language learners and users when heard or read, but not actively produced in speech or writing.

Romance Languages: Languages originating in Rome, in other words, those descending from Latin, such as Italian, French, Spanish, Portuguese, and Romanian.

Root: The word-part that carries the primary meaning of the word it forms. In this study, the term *root* is used to designate the basic, undividable part of the word remaining after all the affixes are removed, whether or not the remaining part is meaningful in English. For example, the root of the Latinate English word *reluctance* would, in this study, be *-luct-* after the prefix *re-* and the suffix *-ance* are removed, and not *reluct* as the case would be in English since breaking the

word further into its constituents would not leave a meaningful part for the English language learners / users who are not informed about the Latinate roots and thus, do not know that *luct(ari)* in Latin means '(to) struggle, wrestle.'

Second Language (L2): A language learned in an environment where it is the official language of communication but not the same as that of one's own mother tongue.

Senior Students: In this study, prospective teachers of English completing the seventh semester (3.5 years) of their tertiary education.

Senior Control Group: Senior class students, 123 in number, participating in the study and contributing as the second control group.

Treatment Group: Freshman class students, 61 in number, who participated in the experiment and received a semester-long Latinate word-part instruction. For the purpose of conciseness, the group was not defined as the "Freshman Treatment Group" since there was only one treatment group in the study, and thus, it would be clear which specific group is meant without indicating its class.

Turkish: The native language of the participants and the researcher. Turkish belongs to the Ural-Altaic language family, and it is a highly agglutinative and postpositional language in contrast to English, which is a derivational and prepositional language of Indo-European origin.

University Word List (UWL): A word list prepared by Xue & Nation in 1984 and updated by Nation in 1990. It contains over 800 word families which occur repeatedly in academic texts excluding the most frequent 2,000-words (GSL). The list was replaced by Coxhead's Academic Word List in 1998. Although Nation's (2001) productive levels test is based on the UWL, the term Academic Word List is employed in the present study to represent both the AWL and the UWL for the purpose of conciseness in defining the words covered in the combined productive word knowledge tests compiled by the researcher and utilized in the experiment.

Word Family: A word with its inflectional and common derivational forms that are clearly and closely related with respect to the meaning the elementary member.

Word Frequency: The number of times a word and its inflectional, derivational, and combinatory forms occur in a corpora of written or spoken discourse. If the word occurs frequently, then it is considered a high-frequency word; if the occurrence is infrequent, then the word is considered in the low-frequency group.

Word Part (Morpheme / Word Building Block): The smallest meaningful part forming a word, whether it is the root or the affix.

1.7. ACRONYMS

EFL – English as a Foreign Language

ELT – English Language Teaching

CHAPTER II
REVIEW OF THE LITERATURE

2.1. INTRODUCTION

A review of the history of language teaching readily reveals that priorities given to the aspects of language learning as the bases of second language acquisition theories have shown a considerable change. The shift in the relative importance given to language skills and areas reflects a tendency of recurring prominence given to grammar, pronunciation, reading, writing, or listening and speaking, but vocabulary learning did not receive much emphasis until after the 1980's. Zimmerman (1997) states this fact as follows:

> Vocabulary is central to language and of critical importance to the typical language learner. Nevertheless, the teaching and learning of vocabulary have been undervalued in the field of second language acquisition (SLA) throughout its varying stages and up to the present day. SLA researchers and teachers have typically prioritized syntax and phonology as "more serious candidates for theorizing" (Richards, 1976, p. 77), more central to linguistic theory, and more critical to language pedagogy. (p. 5)

Lewis (1993) points out that the importance of lexis in language acquisition has been realized and emphasized by various linguists all through the history of language teaching. However, the fact that vocabulary was undeservedly neglected shows that it did not have weight in practice commensurate with its merits despite the declared recognition in theory. In recent years, it gained prominence in second language classroom instruction. Referring to the vocabulary research done in the last two decades, Daller, Milton, & Treffers-Daller (2007) state that "vocabulary is now considered integral to just about every aspect of language knowledge" (p. 1).

The intermittent interest in vocabulary throughout the history of language teaching is summarized below, followed by a review on the importance of vocabulary in language learning.

2.2. VOCABULARY IN THE HISTORY OF LANGUAGE TEACHING

2.2.1. Methods and Approaches

Although some methods and approaches were prevalent in certain periods in history, none can be said to have been the sole application isolated from others once the so-called pendulum started to swing. The continuous shift from one application to another makes it hard to give a clear-cut chronological succession: some methods and approaches came into fashion and overshadowed the ones in practice; some were short-lived but some prevailed; some seemed to have been effaced but never lost ground in the classrooms; some, initially a sweeping novel idea, were alterations or combinations of those applied before. Celce-Murcia (2001) identifies the reason behind these swings as "the fact that very few language teachers have a sense of history about their profession and are thus unaware of the historical bases of the many methodological options they have at their disposal" (p. 3). Despite the actual fluctuations and overlaps, the below grouping according to centuries is nevertheless made to provide easier reference.

2.2.1.1. The Late Eighteenth Century

The Grammar Translation Method, introduced at the end of the 18th century, required that the learners translate literary texts into their native languages, and, to perform this task, they were given bilingual vocabulary lists to be memorized. Since the texts to be translated were passages from classical literature, the vocabulary that learners were required to study covered mostly obsolete words in archaic structures. The native language equivalents of the words under study were provided along with their definitions based on etymology.

2.2.1.2. The Nineteenth Century

François Gouin, the proponent of the Series Method, proposed teaching verb collocations and words in lexical fields. The method, although short lived, left its marks in the history of second language teaching methodology not only as one of the proponents of the naturalistic approach but also as the precursor emphasizing the importance of lexical chunks in language learning.

The Grammar Translation Method, also called the Classical Method, prevailed until the 1920's and was used as the primary means of language instruction, but its opponents gained ground in the field and pioneered the Reform Movement. The need for a profound change was strongly voiced as a reaction to the inefficiency of the teaching method that was reflected in the learners' incompetence in spoken language use and lack of phonetic skills. Isolated vocabulary lists were replaced by carefully selected basic vocabulary items presented in real life contexts, and the emphasis was put on fluent speech and accurate pronunciation.

Under the leadership of linguists from England, Germany, and France, the International Phonetic Association was founded in 1886, and, in an effort to improve modern language teaching, the International Phonetic Alphabet was designed. Phonetic training was given primacy to develop pronunciation skills, and the study of spoken language was emphasized. The Association "advocated the use of conversation texts and dialogues to introduce conversational phrases and idioms" (Richards & Rodgers, 1986, p. 7). As Stern (1983) points out, "the emphasis [was] on everyday vocabulary and common idiomatic sentence patterns" (p. 93).

Zimmerman (1997, pp. 7-8) indicates that the Reformers' "most significant departure form the past in the area of vocabulary instruction was that words came to be associated with reality rather than with other words and syntactic patterns" and cites their point of view as follows:

> Although language is made up of words, we do not speak in words, but in sentences. From a practical, as well as a scientific, point of view, the sentence is the unit of language, not the word. From a purely phonetic point of view words do not exist. (Sweet, 1899/1964, p. 97)

The Reformers paved the way for the following developments, and, as Celce-Murcia (2001) states, "the field of second language teaching has undergone many fluctuations and shifts over the years" (p. 3). The Direct Method, whose name comes "from the priority of relating meaning directly with the target language without the step of translation" (Zimmerman, 1997, p. 8), was mainly based on the principles of naturalistic language learning that place interaction at the core of natural language acquisition.

2.2.1.3. The Twentieth Century

Since the Direct Method required small, intensive classes and native-speaking teachers, it did not find widespread application grounds except for private institutions. As a reaction to its implementation problems a new method emerged in the United States late in the second decade of the 20th century: the Reading Method was developed to improve the reading skills of language learners. In the following decade in Great Britain, Situational Language Teaching came into life. The importance of reading skill was still in focus, but its facilitation was deemed possible through the improvement of vocabulary skills. Zimmerman (1997, p. 9) points out the arguments of the time on the need for selected content to teach the words that would be useful to learners and quotes Michael West as follows:

> The Primary thing in learning a language is the acquisition of vocabulary, and practice in using it (which is the same thing as 'acquiring'). The problem is what vocabulary; and none of these "modern textbooks in common use in English schools" have attempted to solve the problem. (West, 1930, p. 514)

West recommends using word-frequency lists and publishes his renowned General Service List in 1953, which remains the most-referred and widely used list to date (Meara, 2002; Nation, 2001; Read, 2000; Schmitt, 2000). Another leader of the movement who contributes to the development of vocabulary lists and to setting the principles of vocabulary selection and control is H. E. Palmer. Meara (2002) refers to his work and comments that "the results of modern counts are not greatly different from the frequency lists that Palmer developed in the 1920s" (p. 401). Referring to the period, Zimmerman (1997, p. 10) comments as follows: "For the first time, vocabulary was considered one of the most important aspects of second language learning and a priority was placed on developing a scientific and rational basis for selecting the vocabulary content of language courses."

The Audio-lingual Method, founded by American structural linguists, puts emphasis on pronunciation and uses oral drilling of basic grammatical patterns for habit formation as the starting point of language learning. Vocabulary items, taught also through drilling, are chosen on the basis of their familiarity and simplicity. Since grammatical structures are considered the main frame of a language, words are deemed the means for filling in the basic frames and illustrating grammatical topics,

and therefore, unfamiliar and complex lexical items are left to be learned later when the need arises once the learners acquire the structural patterns. According to the proponents of this method, isolated words have no communicative value, and their meanings can be guessed once the compensation skills are acquired.

The late 1950's witnesses the birth of a revolutionary theory which changes the direction of language instruction: communicative language teaching. The theory introduced by Noam Chomsky triggers the debate on language learning issues to last even to date. According to his theory, linguistic competence, deemed to be incorporated into communicative competence, is an innate ability of linguistic creativity that cannot be explained by habit formation. Communicative language teaching puts emphasis on fluency rather than accuracy and aims to develop all four language skills of the learners. Thus, the ultimate goal of language teaching is to help language learners reach communicative competence.

The developments in communicative language teaching in the following decades indicate an increasing trend of emphasis on teaching lexical skills since vocabulary items are considered the means of communicating meaning. Zimmerman (1997, pp. 13-14) points out "the role of vocabulary in language instruction" and provides the following quotation:

> The ability to refer to concrete and conceptual entities is as fundamental to language as is the capacity provided by the grammar to relate such entities to one another. Knowledge of a language demands mastery of its vocabulary as much as of its grammar. … Just as the grammatical meanings of a linguistic form can be established only by reference to the grammatical system of which it is a part, so lexical meaning is the product of a word's place in the lexical system. (Wilkins, 1974, pp. 19-20)

The word frequency lists in use receive criticism as to their accuracy and usefulness from the point of communicative language teaching because some of the words that are deemed most important for the language learners seem not to appear in the lists, the order of the word-frequency lists not to be the best order, and the frequency counts not to agree with the analyzed texts. The selection of words to appear in the course contents take its basis from the way the vocabulary of native language learners develops: exposure to naturally sequenced language in meaningful contexts.

The Natural Approach becomes prominent among the similar communicative approaches of the period. Developed by Stephen Krashen in the late 1970's, the approach aims to help second language learners to reach acceptable communicative ability levels and is based on five hypotheses: Acquisition-Learning, Natural Order, Monitor, Input, and Affective Filter. Zimmerman (1997, p.15) points out that "vocabulary, as a bearer of meaning, is considered by the Natural Approach to be very important to the language acquisition process," and quotes the following remark:

> Acquisition depends crucially on the input being comprehensible. And comprehensibility is dependent directly on the ability to recognize the meaning of key elements in the utterance. Thus, acquisition will not take place without comprehension of vocabulary. (Krashen & Terrell, 1983, p. 155)

Lowe (2003a, p. 4), referring to the early 1970s, states that "academic linguists noticed that the language was *full* of set phrases," and, mentioning "the famous duo" (sic) of the 1980s, he continues as follows:

> Pawley and Syder (1983) showed that these set phrases are actually part of a memorized store of pre-fabricated 'chunks' which, once learnt, each native speaker as automatically at their disposal; when speaking, they said, we appear to use these chunks like single vocabulary units.

Technological developments and elaborate lexicographical research in the 1980s make it necessary to reconsider language teaching methodologies in the light of the newly accumulated data on actual language use and language patterns. Zimmerman (1997) states that the "reorientation in language description has led many to rethink the nature of language and the role played by vocabulary," and, referring to the systematic analysis of lexical phrases made by Nattinger and DeCarrico, she mentions their assertion that "pragmatic competence is determined by a learner's ability to access and adapt prefabricated 'chunks' of language" (p. 16).

The extensive computer analyses and the sophisticated databases provided through detailed research mark the 1990s as the period when the "validity of a grammar-vocabulary dichotomy" is challenged (Zimmerman, 1997, p. 17). Vast corpora make it possible to integrate naturally occurring lexical chunks into the framework of

communicative language teaching. It is then that the Lexical Approach coined by Michael Lewis finds its way among varied methodologies followed in the field.

Lewis (1993), repeating one of his key principles, asserts that "language consists of grammaticalised lexis, not lexicalised grammar" and states that "lexis is the core or heart of language but in language teaching has always been the Cinderella" (p. 89). Pointing out the neglected aspect of language instruction, he challenges the long-established focus on syntax claiming that "language production is not a syntactic rule-governed process but is instead the retrieval of larger phrasal units from memory" (Zimmerman, 1997, p. 17).

2.2.2. Overview of the Language Teaching History

Even a short tour into the language teaching history shows how appropriately Celce-Murcia (2001) compares the shifts in language teaching preferences to "the frequent swings of the pendulum" (p. 3). Brown (2000) points out not only the variation in methodological preferences, but also the integrative nature of theoretical developments as follows:

> Albert Marckwardt (1972: 5) saw these "changing winds and shifting sands" as a cyclical pattern in which a new paradigm (to use Kuhn's term) of teaching methodology emerged about every quarter of a century, with each new method breaking from the old but at the same time taking with it some of the positive aspects of the previous paradigm. (p. 13)

Changes in the priorities given to language learning theories do not appear likely to cease swaying between alternating directions. Neither does it seem probable that a consensus will be reached as to which method or approach, or which combination of the methods and approaches would serve the learners best in acquiring a second language. Within the frame of the second language teaching, vocabulary, even as the least pronounced aspect of language learning, gets its share from this dizzying sway: from rote memorization and drilling to naturalistic learning, from lists of individual words to lexical chunks, from simple words to meaning-laden ones, from etymology to pronunciation, the tendencies towards vocabulary teaching shifted along with those of methods and approaches.

2.3. THE IMPORTANCE OF VOCABULARY

2.3.1. The Role of Vocabulary in Success

Pointing to the importance of vocabulary "as a core component of all language skills" and to the role it plays in the lives of language users, Daller, Milton, and Treffers-Daller (2007) indicate that vocabulary is "one of the major predictors of school performance and successful learning and use of new vocabulary is also key to membership of many social and professional roles" (p. vii). Denning, Kessler, & Leben (2007) voice the importance of vocabulary knowledge as follows:

> [S]peakers with good command of vocabulary can say things in more subtly different (and, hence, often more effective) ways than others can, and this ability is noticed. … [T]he difference between success and failure often amounts to how well we have mastered the ability to speak and comprehend speech and to read and write. (p. 4)

The role of vocabulary in overall success is a fact long documented. Research done by the Johnson O'Connor Research Foundation Human Engineering Laboratory, an institute devoted to the measurement of aptitudes and English vocabulary since 1922, revealed over half a century ago that the vocabulary level is the primary predictor of success not only at school but all through one's life as well and that it is the indication of one's general knowledge. As the founder of the laboratory stated, "words are the instruments by means of which men and women grasp the thoughts of others and with which they do much of their own thinking" (cited in Lewis, 1966, p. 9). Although the mentioned research provides the evidence of the fact with the speakers of English as the native language, it would not be a far-fetched deduction to aver the importance of the profound knowledge of words in English for the speakers of English as a second (ESL) or foreign language (EFL). Gaudio (2003), after mentioning the importance of vocabulary on inference and comprehension, concludes: "If vocabulary development is of such importance for a native speaker, it holds an even greater importance for a second language learner" (p. 6). It cannot be debated that this statement is applicable also to EFL learners.

Hunt & Bagler (2005) underline the fact as follows: "Effective second language vocabulary acquisition is particularly important for English as foreign language (EFL) learners who frequently acquire impoverished lexicons despite years of formal

study" (23). Nation & Waring (1997) also point at the same fact for adult EFL learners and state that "the gap between their vocabulary size and that of native speakers is usually very large, with many … having … much less than 5,000 word families in spite of having studied English for several years" (p. 8).

Vocabulary knowledge is important for native or non-native, young or adult, and second or foreign language speakers alike. Its importance is emphasized in recent research.

2.3.2. Modifiers Ascribed to Vocabulary

In the language learning research literature of the last two decades, adjectives such as *essential*, *important*, *necessary*, *core*, and *central* are commonly used by linguists (e.g., Coady & Huckin, 1997; Daller, Milton, & Treffers-Daller, 2007; DeCarrico, 2001; Folse, 2004; Gass & Selinker1994; Gaudio, 2003; Hughes, 1989; Matthiesen, 1993; Nation, 2001; Nunan, 1991; Pinker, 2000b; Schmitt, 2000) in their comments on vocabulary, and for the lack or low level of lexicon, modifiers such as *common*, *frequent*, and *disruptive* are employed, often preceded with the superlative degree, '*the most*.'

Another aspect of vocabulary seems to deserve the superlative degree: its acquisition. According to researchers, lexicon is 'the most' *difficult*, *complex*, *extensive*, *immense*, *unfathomably vast* and *unparalleled* in size, and it is not acquired naturally (Celce-Murcia & Larsen-Freeman, 1999; Hughes, 1989; Millward, 1996; Pinker, 2000b; Schmitt, 2000). It is necessary to utilize a *systematic*, *organized*, *principled*, and *practical* approach in learning and teaching vocabulary because lexicon has a *system*, *logic*, *pattern*, and *protocol* (Ayto, 2000; Decarrico, 2001; Nunan, 1991; Pinker, 2000a, 2000b; Schmitt, 2000).

2.3.3. Types of Vocabulary

A fact pointed out by the researchers is that vocabulary knowledge is a continuum: "a succession," as Laufer (1998) verbalizes, "from a non existent knowledge towards native-like competence" (p. 255). In this continuum, recognition is the initial stage, and it extends progressively until production stage is reached, thus the terms

receptive and *productive* vocabulary respectively. In connection with the continuum, distinctions are also made about several pairs of terms, i.e. knowledge and control, potential and real vocabulary, passive and active vocabulary, all of which underline the incremental aspect of vocabulary in the continuum (Ayto, 2000; Celce-Murcia & Larsen-Freeman, 1999; Gass & Selinker, 1994; Hughes, 1989; Schmitt, 2000). It is found out that the learners' receptive vocabulary is always larger than their productive vocabulary and that the gap between these two increases as the frequency level of the acquired words decreases (Golkar & Yamini, 2007; Laufer, 1998; Nation, 2001; Read, 2000; Schmitt, 2000; Waring, 1997).

For the production to take place, the meaning must become established and the appropriateness and usage of words must be internalized, all of which need explicit knowledge. Simple exposure to lexical items does not result in vocabulary learning. To reach the level of English necessary to understand the meanings of words and expressions used especially in academic contexts, both native and non-native (L2) speakers need to feel confident about the meaning these lexical items convey (Cortes, 2004).

Whichever term is used to name the acquired knowledge, i.e. whether it is called *productive*, *controlled*, *real*, or *active* vocabulary, the fact that it plays an important role in understanding the language does not change. As Calvo (2004) indicates, "the available vocabulary knowledge makes a direct and specific contribution to inferences" which are the representations of incomplete information that need to be refined by a transformation process through "searching and selecting words available in the mental lexicon" while reading (p. 62). A large vocabulary facilitates this process and contributes to understanding more than these predictive inferences do.

2.4. WORD KNOWLEDGE

The meaning and the scope of word knowledge have always been of interest to linguists since vocabulary plays an important role in language learning. The complex nature of vocabulary acquisition makes it hard to define what knowing a word means. Researchers have inquired into the matter extensively especially after vocabulary gained prominence in the field. As Schmitt & Meara (1997) point out,

"there is much more to knowing a word than just learning its meaning and form" (p.18).

Nation (2001) states that knowing a word involves form, meaning and use, and he specifies three aspects of each: spoken form, written form, and word parts relate to *form*, whereas form and meaning, concept and references, and associations relate to *meaning*, and grammatical functions, collocations, and constraints on use relate to *use*. His classification is widely accepted and is often referred to as a comprehensive source of reference.

Receptive and productive aspects of vocabulary have often been referred to as a means of describing word knowledge, but, as Read (2000) states, it is not "a simple continuum running from minimal receptive knowledge to advanced productive ability" (p. 157). Laufer (1997) also shows how words can be transparently deceptive and thus, be misinterpreted. She describes such vocabulary items as "words you think you know" (pp. 25-27). It is, therefore, not only the matter of the words' being known receptively or productively, but also the matter of their being known precisely or inaccurately, and even incorrectly.

The breadth and the depth of vocabulary are the terms used in describing the size and the quality of the word knowledge. Fluency is indicated as a third aspect that complements quantitative and qualitative dimensions of vocabulary knowledge and indicates competence in productive use. Pointing out to the importance of lexical knowledge, Hunt & Beglar (2005) state that "the primary lexical objectives are increasing vocabulary breadth, elaborating vocabulary knowledge, and developing fluency with known vocabulary" (p. 256).

2.4.1. Breadth of Vocabulary

The enormity of the number of English words renders vocabulary acquisition even more difficult for the learners. Random House Webster's Unabridged Dictionary (1997), a 2230-page fine-print reference, has over 315.000 entries. Denning, Kessler, & Leben, mentioning the 476,000 words in the 1961 issue of the Webster's Third New International dictionary contains, state that "no other language comes close to English in a count of general vocabulary" (p. 3).

It is practically impossible even for the native speakers to know all these words. Goulden, Nation, & Read (1990) refer to the various studies on vocabulary size based on dictionary sampling and indicate that the number of base words is 54,000 and that only 17,000 are known by well-educated adult native speakers of English. Nation & Waring (1997) indicate that native-speaking university graduates may know up to 20,000 word families. Schmitt (2000), referring to this number, points out that "building a native-sized vocabulary might be a feasible, although ambitious, undertaking for a second language learner" (p. 4). In fact, the enormous extent of vocabulary breadth is a great challenge for both native speakers and non-native language learners.

The lowest number of 2,000 words that are included in the General Service List comprising the most frequently used 2,000 headwords in English is agreed upon as 'required' for the minimum production for beginners. Researchers in the field commonly agree that the list published in 1953 by Michael West remains the most-referred and widely used list to date (Meara, 2002; Nation, 2001; Read, 2000; Schmitt, 2000).

For reading authentic texts, learning another 1,000 words is deemed a must. Researchers point out that a family of 5,000 words is the solid foundation upon which the academic words can be built in order to be able to pursue university study. It is only at 10,000-word level that a learner will be able to understand academic texts. To reach the level of a university-educated native speaker and to read with minimal distraction that may arise due to unknown vocabulary, English language users must acquire 20,000-word lexis. It is worth mentioning here that the numbers indicated above cover only the headwords; their derivatives should also be learned.

As far as academic study in English is concerned, researchers are in complete agreement about the necessity of acquiring the words in the Academic Word List (AWL). It comprises 570 word-families derived from a corpus of 3.5 million words used in academic writing. The corpus includes texts from twenty-eight subject areas. The words on the AWL are deemed indispensable for reading academic texts. Nation (2001) proposes that one in every ten words will still be unknown even if the first 2,000 words and those in the AWL are acquired.

The findings of an L2 research carried out by Tschirner (2004) with first-semester university students on the breadth of vocabulary are, as he states, "very disappointing" because "only 2% pass the productive 3,000 word level … and a whopping 79% fail the productive 2,000 word level" (p. 37). He points out the importance of vocabulary size and indicates that "in order to master the amount of reading required by a typical university degree program, it seems imperative to have a large vocabulary consisting of perhaps 5,000 to 10,000 words" (p. 28).

Folse (2004), referring to the enormous size of required vocabulary, points out that "the knowledge of word meaning constitutes the largest element of reading comprehension," and states that "while lack of vocabulary knowledge is a problem across all skill areas, it is especially apparent in ESL reading" (p. 136). It is not only the matter of vocabulary size, but also the necessity of rapid access to meanings once the words are recognized. Grabe & Stoller (2001) state that "reading comprehension cannot be carried out for an extended period of time without word recognition" (p. 21) and indicate that "fluent word recognition does not usually involve information from context or background knowledge" (p. 33). Automatic and fast access to meanings is fundamental for fluency in reading comprehension and necessitates a wide and diverse knowledge of vocabulary.

The role of vocabulary in language learning and in achieving competence in all language skills necessitates that both the number of the words known and the quality of word knowledge be given emphasis in acquiring vocabulary to achieve fluency in language use.

2.4.2. Depth of Vocabulary

The enormous size, although a challenge, is also a richness that provides speakers of English with the advantage of versatility in word choice and distinction in meaning. Denning, Kessler, & Leben (2007) express this quality as follows:

> English is extraordinarily well endowed with words. … One significant result of the size of the English vocabulary is the degree of precision and range of choices it allows. We have a wealth of words that are nearly synonymous yet embody subtle differences in meaning. (p. 5)

The breadth and depth of English vocabulary, while advantageous, present the learners a great difficulty in acquiring the knowledge of words available to them in such a vast variety and such an exceptional refinement. Learning English vocabulary is a challenging task especially for the second and foreign language learners, a dreaded burden but also an essential undertaking that must be carried out as to achieve competence. As the maxim, *Divide et impera*, bequeathed to us by the speakers of this unequaled language's ancestor advises, the immense body of this indispensable source must be divided into smaller parts to triumph over the otherwise insurmountable task. One of the most useful tools for breaking up the lexical units into their components is the ability to analyze word parts which facilitates not only learning but also retention and recall. The awareness of these building blocks also provides accurate and forceful use of words. Mastery in employing word parts to deduce meaning equips the language users with an acquired ability of utilizing the appropriate word in the proper context. On the receptive plane, the mastery facilitates reading and listening comprehension, enabling language users to penetrate the subtle meanings without distraction and to grasp the conveyed message with an increased command.

Awareness of the patterns of word formation plays an important role in vocabulary learning from the viewpoint of both breadth and depth of lexical knowledge.

2.5. THE ROLE OF MORPHOLOGY IN VOCABULARY LEARNING

Referring to the discrete combinatorial aspect of language, Pinker (2000a, 2000b) states that the rules of morphology govern the formation of words that are made out of smaller building blocks, and these pieces are stored in the lexicon rather than their combinations. Knowing the meanings of these components is the key to decoding the meanings of the words generated by assembled smaller parts.

Unlike the short, mostly mono-syllabic native English words that are memorized and recalled as a whole, the borrowed complex, multi-syllabic words built out of basic morphological units of Endo-European origin are usually long and constitute most of the technical and formal elements of English vocabulary. The majority of these building blocks, the affixes and roots, mostly descend from Latin and Ancient Greek,

and the words formed out of these constituents amount to over 60 percent of the words in English (Nation, 2000; Bellomo, 2005).

Denning, Kessler, & Leben (2007) point out that "most of the complex words in the language have similar structures," and that "some aspects of the study of word structure (known as morphology) are helpful in analyzing words into their parts and in understanding how the parts contribute to the meaning of the whole" (p. 5). Awareness of the parallel structures and the major word parts helps relieve some of the burden of rote memorization and makes it easier not only to retain and recall the learned words but also to construe the meanings of the words encountered for the first time. Furthermore, this awareness facilitates guessing the word meanings from the context with a better command and accuracy.

In addition to the aforementioned benefits of word-part knowledge, namely guessing, retention, and recall, Eğecioğlu (1996, pp. 23-24) enumerates also prevention of spelling and usage errors, such as 'se-*par*-ate' and 'se-*per*-ate,' and elimination of confusion due to similarities in spelling, such as 're-*numer*-ate' and 're-*muner*-ate.' Awareness of morphological building blocks and command of their basic and associative meanings help not only to acquire and expand word knowledge but also to appreciate the underlying social and cultural values giving base to the language. Recognition of these values enables learners to become better informed about the language, and thus, endows them with the faculty of discerning the nuances in meanings and using the language with increased command.

As for the synonyms and near-synonyms, awareness of the basic meanings of Greco-Latin roots making up English words offers an indispensable key to the subtle meaning differences, and thus, increases the command of language use. For example, knowing that the Latinate word part in *persuade* means 'suave' and that the part in *convince* means 'to conquer' provides the user a means to discriminate the subtlety between the definitions of the two verbs. Dictionaries (e.g. Random House, 1997, & American Heritage, 2000) provide meanings and usage notes on these two synonymous words and indicate that the former involves 'consent' (i.e., agreement) and the latter 'argument and evidence' (i.e., assertion and proof). Without going into the meanings of any of these words involved in the definitions and the synonyms in

parentheses, knowing the meanings of the roots *sua* and *vinc* would make it clear to the user that if the party is convinced, persuasion would not be called for.

The benefits accrued through word-part awareness may be counteracted by the drawbacks emanating from inexperienced use and the hardship faced in achieving mastery. Pointing out the complexity of learning Latinate words in English, Corson (1997) mentions several factors such as infrequency, length, difficulty in pronunciation, abstractness, semantic opacity, and rarity in active use, all of which add to the tremendous effort involved in acquiring an exceptionally large vocabulary. These unfavorable aspects notwithstanding, he emphasizes the significance of knowing Greco-Latin based English words for achievement in both the secondary and the tertiary education. Bellomo (2005) draws attention to the aspect of difficulty in acquiring the ability to analyze word-parts as follows:

> Word parts are not simple vocabulary items students are exposed to in their normal course of reading or conversation. Gaining expertise in the use of morphological analysis requries more of a studious approach to language acquisition than mere rote memorization of vocabulary items. (p. 96)

Learning English vocabulary is an intimidating task because of the vast number of words to be learned, and having to acquire so many words only by rote memorization would be even more disheartening. Learners need to employ functional tools to overcome the burden even if it may need continuous effort and persistence. To make it easier for the learners to gain expertise in utilizing morphology as a tool, it is generally agreed that (e.g., Bellomo, 2005, 2009; Eğecioğlu,1966; Read, 2000) the selection of word parts to teach needs to be based on three principles: ubiquity (the number of derivatives and their high frequency), semantic transparency (clarity of meaning the parts convey), and similarity of form (uniformity of parts appearing in words).

Another aspect of difficulty in utilizing Greco-Latin word parts is the incorrect interpretation of word meaning. Learners may erroneously liken a part of a word to a word-part having the same spelling but not the same root. It is essential that the learners check the guessed meaning not only by referring to the context the word takes place in, but also by consulting their dictionaries as to make sure that the meaning they deduce is correct.

Word parts are useful mnemonic devices for acquiring, retaining, and recalling word meanings. The effort put in and the time spared for learning word parts may seem demanding at first, but the result is rewarding: gaining expertise in using this indispensable tool brings about a bountiful remuneration received life-time since vocabulary building is a life-long process. Nation (2000) questions whether it is worthwhile to learn the word parts, and making a detailed cost / benefit analysis, concludes as follows:

> The word building systems of English are very important ways of enabling learners to make the most effective use of the stem forms that they know. … Using word parts to help remember new words is a major vocabulary learning strategy. It deserves time and repeated attention because it can involve such a large proportion of English vocabulary. (pp. 280-81)

2.6. STUDIES RELATED TO VOCABULARY KNOWLEDGE

Empirical research carried out on vocabulary acquisition has been generally based on lexical gains through reading. Extensive reading, reading plus, reading for meaning, incidental vocabulary learning through reading, vocabulary acquisition through repetitive encounter with unknown words in reading, and inferring word meanings from context have been commonly investigated to determine the effects of reading on vocabulary learning and expansion. Furthermore, the effects of mnemonics in word knowledge acquisition and the contribution of creating linguistic awareness for acquiring deeper word knowledge during reading have been studied to explore the means for vocabulary learning and retention. The results obtained thorough empirical research reveal that, whichever of the aforementioned means is employed, each would be beneficial to some extent in gaining word knowledge, but each would also have its limitations.

Research done on learning vocabulary through reading has shown that reading alone is not sufficient to gain word knowledge and that explicit vocabulary teaching is essential especially for the second and foreign language learners. Empirical studies on reading plus (e.g., Min, 2008; Paribakht & Wesche, 1997, 1999; Yücel-Spahiu, 2000) reveal that focusing on target vocabulary yields better results than reading for meaning alone. Experiments carried out to investigate incidental vocabulary learning (e.g., Ferrell & Daloğlu, 2006; Webb, 2007) also shows that extensive reading is

insufficient especially in the case of lower level readers and that sizeable gains is possible only through many repetitive encounters with unknown words. As for the higher level learners, the frequency of words in reading texts plays an important role, in that the ratio of acquisition decreases when the target vocabulary items are of low-frequency word level. Keating (2008), exploring the effects of reading alone, reading plus, and reading with sentence-writing tasks, reports that word knowledge gain and retention is the lowest in reading alone and that incidental learning of words is improved when vocabulary is focused on.

Metaphors, alliterations, and assonance as mnemonic devices, are also useful in gaining the knowledge of multi-word vocabulary (Boers, 2000a, 2000b; Boers & Lindstromberg, 2005; Lindstromberg & Boers, 2008). The researchers draw attention to the phonological-patterning of word-phrases and suggest a criterion, memorability, in addition to the widely accepted criteria of word frequency and utility employed in selecting vocabulary items to be taught. Story telling is yet another mnemonic device for vocabulary acquisition and retention. For example, Kütük (2007) shows that storytelling activities contribute to acquisition process by increasing motivation, creating interest, and offering pleasurable learning by providing meaningful and rich input. Semantic mapping is yet another mnemonic device that has been the topic of interest in vocabulary acquisition research. Empirical studies (e.g., Özden, 1998; Shapiro & Waters, 2005) show that keyword method is an effective tool for acquiring and retaining word meanings by providing visual images that help learners establish semantic relationships between the keywords and the words they learn.

In classroom practice, inferring word meanings during reading is a widely recommended means for learning vocabulary. Although may be justifiable in the case of native speakers and proficient learners, word-inference through reading alone has often been questioned in the case of lower-level learners especially in second- and foreign-language environments. Folse (2004), discussing the myth of guessing word meanings from context, reveals that, contrary to general belief, it is not an excellent strategy for learning second language vocabulary. He quotes from Martin (1984, pp. 130-131) who points out that second and foreign language learners do not have "the luxury of multiple exposures to words over time and in a variety of

meaningful contexts" (p. 73). Laufer (1997) discusses the deceptive transparency of words and defines the misinterpretations in word guessing as "the lexical plight in L2 reading" (p. 32). Ebbers & Denton (2008) state that word-guessing is not a reliable tool for low-proficiency level readers and suggest that direct vocabulary instruction be given to create linguistic awareness. They propose an "Outside-In strategy" (p.98) that combines contextual and morphemic analysis in guessing the meanings of unknown words.

Studies that experiment reading comprehension and morphological awareness in combination support the conclusions that point out the necessity of explicit vocabulary teaching. Word-part awareness and its use by learners in guessing word meanings deserve special attention since studies show that morphological knowledge facilitates reading comprehension and word-meaning inference, as well as vocabulary learning, retention, and recall.

Eğecioğlu (1996) carried out a ten-week experimental study with 40 Turkish undergraduates during the second semester of their junior year and showed that teaching Latinate word-parts helped students perform better in learning low-frequency word meanings. She chose ten topics, and worked on one topic each week for three hours, the first of which was spared for reading and vocabulary learning activities, the second for the writing task, and the third for testing. Half of the students who studied in the same manner also worked on vocabulary but did not receive instruction on word-parts. At the end of the fifth week, she reversed the groups, and found out that the latter group which received the Latinate word-part instruction with delay caught up with the former group soon and even surpassed it at the end of the second round of five weeks.

Bellomo (2005), working with students attending preparatory reading class prior to the freshman year of their tertiary education, similarly combined reading comprehension and morphological analysis strategies in his quasi-experimental research. He carried out a study with three groups of participants, one of which was formed by 44 native English speaking students, and the other two by a total of 88 foreign students. Of the two foreign language groups, one comprised 37 students whose native languages were of Latin-based origin, and the other 51 students whose

mother tongues were non-Latin based. He gave Latinate word-part instruction to all three groups and evaluated students' performances at the end of the semester. He found out that knowledge of morphemes helped students learn morphologically complex words and that they profited from explicit vocabulary teaching regardless of their native language origin.

As the aforementioned empirical research and the findings obtained in the field of vocabulary acquisition indicate, there is an indubitable need for explicit teaching of vocabulary items. In other words, direct instruction is an indispensable means for learning and retention of words meanings. It is especially crucial when low-frequency, polymorphous words are involved as they essentially call for morphological awareness of Latinate word-parts.

CHAPTER III
METHODOLOGY

3.1. OVERALL DESIGN OF THE STUDY

This experimental study was conducted to evaluate the effect of English vocabulary instruction through Latinate word parts. The participants were freshmen undergraduate students learning English as a foreign language. They were given a pre-test at the beginning of the first semester of their tertiary study as to assess their English vocabulary knowledge. Then they were divided into two groups, namely treatment and freshman control, and only the former group received Latinate word-part instruction by the researcher, while the latter group did not. The same test was given again at the end of the semester to both groups as a post-test and the results were compared both within and between the groups.

To further evaluate the effect of word-part instruction, the post-test results of the treatment group were also compared with those of senior undergraduate students who were given the same test at the end of their seventh semester but who had not received Latinate word-part instruction to that date. The premise this comparison was based upon was that the seniors, being three years ahead of the treatment group, had the privilege of receiving instruction in English as a part of their academic program for a much longer period, and thus, had dealt with a considerably larger number of low-frequency words and academic vocabulary through their courses, presumably enabling them to acquire a wide range of word knowledge.

The test compiled and utilized in this study as the pre- / post-test was piloted twice by administering its former versions once to the freshmen students of the same university the previous year, and once to those of an equivalent institution prior to the commencement of this study. In each step, item difficulty levels and discriminating powers were analyzed as to improve test reliability.

In addition to the pre- / post-test utilized to collect data for the study, two more tests were compiled to be administered as the mid-term and the final examinations as to follow-up student performance throughout the semester.

Moreover, to verify the assessment of the statistical data obtained by means of the pre- / post-test, at the end of the semester the researcher conducted interviews with those treatment group members who volunteered to participate. The quantitative data were compared with the results of the qualitative analysis of the points of view conveyed by the participants on the word-part instruction they received.

3.2. HYPOTHESIS

Teaching Latinate word parts to undergraduate students whose native language is not of Indo-European origin and who learn English as a foreign language is an effective tool for enlarging their English vocabulary knowledge.

3.3. RESEARCH QUESTIONS

Based on the design of the present study and the hypothesis giving base to the experiment, three research questions were derived:

1. What is the effect of teaching Latinate word parts on enlarging English vocabulary knowledge of prospective English language teachers in their freshman year of undergraduate study?

2. Is there any difference between the English language vocabulary knowledge of the undergraduate freshmen students who received Latinate word-part instruction during the first semester of their study at the department of teacher education and that of senior undergraduate students at the end of their seventh semester at the same department?

3. What is the opinion of the students about the instruction they received in learning vocabulary through Latinate word parts?

3.4. SETTING

The study was carried on in the English language teaching (ELT) department of one of the leading public universities in Turkey. The institution has a highly regarded faculty of education that includes also a four-year English teacher education department with a graduating class of over 120 prospective teachers each year. Those high-school graduates who pass the nation-wide university placement test

with high percentile rankings are accepted to the school and are required to take also an English language proficiency level test to be eligible to study as freshmen. The non-passing candidates take the compulsory English language preparatory courses offered at the university. Thus, proficiency level of the freshman-class student population in the ELT department is considered homogeneous.

The student body, on the other hand, is heterogeneous in respect of regional diversity. The university placement test administered once a year throughout the country enables students from every region to attend the schools of their choice countrywide provided that their test scores fall within the limits of those set for the departments they prefer. In this respect, the participating body of the present study is deemed representative of the population the researcher aims to investigate.

Freshmen students of the department are traditionally grouped into four classes by dividing the total number of the enrolled students on the alphabetical list made according to last names. This application renders the groups random in regard to students' educational backgrounds, regions of prior residency, placement-test scores, and English proficiency levels. The classes being formed thus facilitated the selection of treatment and freshman control groups without concern about the impartiality of distribution. Therefore, the availability of classrooms and the suitability of class hours fitting to students' overall course program were the two criteria in setting the treatment and the freshman control groups, each of which were formed of two classes. The treatment group was given instruction during the first semester of the 2007-2008 academic year by the researcher. The treatment took place in the same classroom setting on the same day of the week in two consecutive sessions as to receive each class separately in the same learning environment without a gap in the instruction times.

3.5. PARTICIPANTS

The study was conducted with 122 freshman class participants divided into two groups, namely *treatment* and *freshman control*, each of which was composed of 61 students and with 123 senior class participants as the second control group. Both the

freshmen and senior students were prospective English language teachers attending the aforementioned tertiary institution.

The details of participants' demographic information, namely, their ages, genders, years of English language study, years of study abroad, other languages studied, and regional origins, are presented in Sections 3.5.1 through 3.5.6.

3.5.1. Participants' Ages

Table 3.1

Average age of the participants

Group type	N	Min age	Max age	$\bar{x}$
Freshman	122	18	24	19.05
Senior	119	21	51	22.57

Note. Four seniors did not indicate their birth dates on the questionnaire.

Table 3.2

Age distribution of the treatment and freshman control groups

Group Type	Age							Total
	18	19	20	21	22	23	24	
Treatment	7	47	5	1	1	0	0	61
Freshman Control	9	47	3	0	0	1	1	61
Total	16	94	8	1	1	1	1	122

Table 3.3

Age distribution of the senior control group

Group Type	Age								Total
	21	22	23	24	25	26	32	51	
Senior Control	8	85	16	4	3	1	1	1	119

The average age of the freshmen students was 19, and that of the senior students was 22, corresponding to the three years' difference of tertiary study.

3.5.2. Participants' Genders

Table 3.4

Gender of the freshman class participants

Gender	f	%
Male	38	31.1
Female	84	68.9
Total	122	100.0

Table 3.5

Gender distribution of the treatment and freshman control groups

Group Type	Gender				Total
	Male	%	Female	%	
Treatment	22	36.1	39	63.9	61
Freshman Control	16	26.2	45	73.8	61
Total	38	31.1	84	68.9	122

The percentage of female students in the freshman control group (73.8%) was higher than that of the students in the treatment group (63.9%). The ratio of females over males in the freshman class was approximately two thirds.

Table 3.6

Gender distribution of the senior class participants

Group Type	Gender				Total
	Male	%	Female	%	
Senior Control	28	22.8	95	77.2	123

The percentage of female students in the senior control group (77.2%) was also greater than that of the male students (22.8%), bringing the ratio of females to well over three fourths. Thus, in both classes, the majority of participants were female. This corresponds to the general trend of career preference by women as teachers.

3.5.3. Years of English Language Study

Participants' native language was Turkish. All the participants had learned English as a foreign language mainly during their secondary education, but some had studied it also during the middle and / or primary school years.

Foreign language teaching programs in Turkey generally start in the preparatory year of high school and last for five years. If the length of study is less than five years, then the high school attended either may not have a preparatory year or may last only three years after the preparatory class. On the other hand, if the program covers also the middle school, then the length of study is eight years. Some primary schools may have foreign language classes, and thus, the students may receive instruction for a longer period.

Therefore, to compare freshmen and senior participants' length of English language study prior to tertiary education, two categories were formed: students who studied English for four years and less, in other words, only in high school, and those who studied for five years and more, in other words, also during the middle school and / or before.

Table 3.7

Comparison of the length of participants' learning English as a second language prior to tertiary education

Group Type	Years of English before university				Total
	4 years or less	%	5 years or more	%	
Treatment	12	19.67	49	80.33	61
Freshman Control	25	40.98	36	50.02	61
Freshmen Total	37	30.33	85	69.67	122
Senior Control	25	20.33	98	79.67	123

As Table 3.7 shows, 69.67% the freshmen participants studied English for a longer period than their peers, and this ratio, when the treatment and the freshmen control groups are compared, was greater in favor of the former. As for the senior participants, 79.67% of the participants studied English for longer years than their classmates. This ratio was even greater than that of the freshman class.

On the whole, the great majority of students participating in the present study had learned English as a foreign language for five years and longer prior to their tertiary education.

3.5.4. Years of Study Abroad

Considering that studying the target language in its natural environment may have had a positive effect on participants' vocabulary, the questionnaire included an item about the duration of such an opportunity. Table 3.8 shows the number of freshmen and senior students who studied in a country where the language of communication was English.

Table 3.8

Duration of English language study abroad

Duration	Freshmen		Seniors	
	f	%	f	%
Never	120	98.4	98	79.7
A semester or less	1	.8	11	8.9
Over a semester up to a year			3	2.4
More than a year			1	.9
Not answered	1	.8	10	8.1
Total	122	100.0	123	100.0

Note. One freshman and ten senior students did not respond to the question.

As the figures in Table 3.8 indicate, only one freshman student had been abroad to learn English. He was in the control group and had this opportunity for only a few weeks. Fifteen senior participants, on the other hand, had the chance to learn English abroad, eleven of whom did so only for a semester or less, three over a semester up to a year, and one more than a year.

3.5.5. Other Languages Studied

Since English shares the common ancestor with the Indo-European languages, studying another language from the family may have had a positive effect on the participants' vocabulary knowledge. Taking this assumption into account, the participants were prompted to give information on their knowledge of a language or languages other than English. The questionnaire offered German, French, Italian,

and Spanish as alternatives since they are the languages most commonly taught at schools in the country. A blank space was also provided for other languages that were different from the options. Table 3.9 displays the frequency data related to the languages other than English studied by the participants.

Table 3.9

Languages studied other than English

Language studied	Freshmen		Seniors	
	f	%	f	%
None	35	28.7	62	50.4
An Indo-European language	85	69.7	52	42.3
Others			4	3.3
Not answered	2	1.6	5	4.1
Total	122	100.0	123	100.0

Note. Two freshmen and five senior participants did not respond to the question.

As the figures in Table 3.9 illustrate, nearly one thirds of the freshmen and half of the senior participants did not know any other foreign languages than English. Four senior participants indicated that they knew languages that are not from the Indo-European language family. When the breakdown was further analyzed, it was seen that there was no one who studied Italian and only one senior participant who studied Spanish. Ten seniors and six freshmen studied French, 40 seniors and 77 freshmen studied German, and two freshmen, who were control group members, studied both German and French. Considering the limited scope of the second foreign language instruction in high schools in the country and the slim possibility of its effect on the primary foreign language learning, knowledge of other languages was not analyzed as a variable in this study.

3.5.6. Regional Origins of the Participants

The participants came from various cities in the seven geographical regions of the country, showing wide range of regional distribution. Tables 3.10 and 3.11 illustrate the regional distribution of the freshman and senior class students.

Table 3.10

Distribution of the freshmen participants according to regions

Regions	f	%	Most / Least Contributing
Black Sea	28	23.0	41.0%
Marmara	22	18.0	
East Anatolia	16	13.1	
Aegean	16	13.1	
Central Anatolia	15	12.3	
Southeast Anatolia	13	10.7	18.1%
Mediterranean	9	7.4	
Abroad	3	2.5	
Total	122	100.0	

Note. The distribution is random insofar as the acceptance to the institutions of tertiary education depends on the scores participants obtain from the university placement exam.

The majority of freshmen participants (41.0%) came from two regions covering the northern part of the country. The university where this study was conducted is in Marmara, one of the two most contributing regions. On the other hand, the lowest proportion of the participants (18.1%) came from two southern regions. As Table 3.11 indicates, the senior participants also came from all seven regions in Turkey, and their distribution was more or less parallel to that of the freshmen participants.

Table 3.11

Distribution of the senior participants according to regions

Regions	f	%	Most / Least Contributing
Black Sea	33	26.8	48.8%
Marmara	27	22.0	
Aegean	20	16.3	
East Anatolia	13	10.6	
Central Anatolia	12	9.8	
Mediterranean	9	7.3	10.6%
Southeast Anatolia	4	3.3	
Abroad	3	2.4	
Total	121	98.4	

Note. Two participants (1.6%) did not supply information on regional origin.

The majority of senior participants (48.8%) came from the same two northern regions as did the freshmen students. Similarly, the smallest proportion of seniors (10.6%) was from the southern regions. Closeness of hometown generally plays an important role in students' preference but is not the main reason. The score obtained from the university placement exam is the primary factor in being accepted to an institution. The department in which this study was conducted requires a high score; therefore, Marmara is not necessarily the region with the highest percentage of students attending this institution despite the proximity.

3.6. DATA COLLECTION INSTRUMENTS

The three instruments used to collect data for the study were the questionnaire, paper-and-pencil tests, and interviews. The first was used to collect personal data and information about the study habits of the participants, the second to assess their word knowledge, and the third to gather the treatment group participants' personal opinions about the vocabulary instruction carried out.

All three types of data collection instruments were compiled by the researcher specifically for this study. The tests giving base to the study were piloted twice, first in May 2007, and then in October 2007, prior to the experimental study which was carried out in the fall semester of the 2007-2008 academic year.

3.6.1. The Questionnaire

A one-page, two-section questionnaire (Appendix A) to collect information on the backgrounds and word study styles of the participants was designed by the researcher to be filled in at the beginning of the pre-test session. The questionnaire was prepared in Turkish both to eliminate misunderstandings that might have occurred due to lack of word knowledge or misinterpretation and to shorten the response time through better and faster comprehension and evaluation. Instruction in Turkish was also given orally before handing out the questionnaires as to minimize distracting individual questions once the session started and as to provide clarity for thorough completion. (See Appendix B for the English translation of the questionnaire).

The preliminary questionnaire which was designed by the researcher and piloted during a trial session with another group of students in the same department contained twelve items in the 'background information' section and sixteen items under 'vocabulary learning and language improvement' heading. The two-page questionnaire employed during the piloting session took a considerably long time to fill in, extending into allotted testing time. To avoid this setback, all the items inquiring language improvement approaches and three items related to background information were omitted in the final version. Also, the number of choices offered for each item in the vocabulary improvement section was reduced from five to four to reduce the possible effect of testee tendency to choose the medial option.

Consequently, the first section of the questionnaire utilized in this study contained nine questions on personal information such as birth date and place, native language, secondary school, and English language background. The second section was composed of eight questions as to elicit word study tools the participants used in learning English vocabulary. To find out the frequency of practice for each means, four options, namely *never*, *occasionally*, *frequently*, and *always*, were presented to choose from, and the participants were prompted to mark only one option for each. Word study styles queried include such habits as using word lists and flash cards, guessing meanings from context, and consulting dictionaries. A choice inquiring word-part observation tendency of the participants was also included as to find out the prevalence and frequency of its utilization in learning English words.

3.6.2. The Pre- / Post-test

The test administered in the main study both as the pre- and post-test (Appendix C) was piloted twice. For each piloting, classical item analyses were conducted to finalize the items. After each piloting, expert judgment was conferred for the remaining items with respect to content validity. Each vocabulary item was checked through negotiations with an ELT professor who was teaching at the university where the first pilot test was administered and who had experience with the target group students for more than eight years.

Initial test construction was based on the standardized frequency-level tests of receptive and productive vocabulary. The two criteria, namely the *level* of vocabulary items and the *type* of test items, were the decisive factors in test construction.

3.6.2.1. Frequency Levels and Item Types

The frequency levels were set to be the 5,000-word list and higher and also the academic word list. The rationale underlying this decision was that the participants were university freshmen who would be required to read academic texts and should have already passed the language threshold which is agreed to be above 3,000-word level for comprehending advanced-level texts (Arnaud & Savignon, 1997; Coady, 1997; Hacquebord & Stellingwerf, 2007; Laufer, 1997; Nation & Waring, 1997). Read (2000) states that "5000-word level represents the upper limit of general high-frequency vocabulary that is worth spending time on in class … [and] the 10,000-word level covers the more common lower-frequency words of the language" (p. 119). As Tschirner (2004) points out, vocabulary knowledge essential for mastering the extensive reading university-degree programs demand runs between the 5,000 and 10,000 word-levels, which is well above the 3,000-level.

The second criterion, namely the type of items to be employed, suggested itself as a consequence of the preference for vocabulary level tests which utilize either the *matching definition* or the *word completion* item types. Laufer (1998) and Laufer & Nation (1999) state that a levels test composed of matching-definition items gauges *receptive* vocabulary knowledge while a levels test comprising word-completion items measures *productive* knowledge. Laufer, Elder, Hill, & Congdon (2004) define the former as 'the ability to retrieve the word meaning' and the latter as 'the ability to retrieve the word form.' Matching definition tests, therefore, call for the recognition of word meanings, in other words, receptive knowledge of the tested words whereas word completion tests necessitate the recall of word forms, in other words, productive vocabulary knowledge.

Read (2000), on the other hand, states that "the blank-filling version may simply be an alternative way of assessing receptive knowledge rather than a measure of

productive ability" (p. 126) and, referring to the suggestion made by Melka (1997, p. 99), reminds that "it is most useful to think in terms of a receptive to productive continuum, representing increasing degrees of knowledge or familiarity with a word" (p. 154).

Taking both views into account, the researcher of the present study employed both the matching definition and the word completion item types in the same testing session as to elicit the participants' receptive and productive knowledge levels and combined the test scores of both types as to assess the overall word knowledge in continuum.

The two versions of matching definition tests, the one supplied by Nation (2001, pp. 419-422) and the other by Schmitt (2000, pp. 196-197 & 199-200) were the sources of the receptive test, and they were combined and re-arranged to meet the demands of this study. Read (2000, p. 118) refers to the set of levels tests devised by Nation (1983, 1990) as a useful tool widely employed "by researchers who needed an estimate of the vocabulary size of their non-native-speaking subjects," and he quotes Meara who "calls it the 'nearest thing we have to a standard test in vocabulary' (1996a: 38)." The following item is an example of matching definition test format:

1 debate	
2 exposure	_____ continuing narrative
3 integration	_____ power of remembering
4 retention	_____ joining something into a whole
5 sequel	
6 vehicle	

The two parallel versions of word completion tests presented by Laufer & Nation, (1999, pp. 47-50) and webbed by Cobb (2000) were the basis of the productive test. As done with the receptive set, these two sets were also combined and re-arranged to fit the requirements of the present study. The following item is an example of word completion test format:

The audience was amazed by the spec_____ fireworks.

Golkar & Yamini (2007), applying the two types of levels tests to EFL learners, found that they both are reliable and valid in determining the vocabulary size also in foreign language environment.

3.6.2.2. The First Piloting

The two versions of the abovementioned standardized levels tests in both item formats were utilized in compiling the pilot tests. The number of items included in the standardized matching-definitions levels tests differs according to the compiler. For example, Nation (2001) uses 30 items in each level and 36 items in academic vocabulary test, whereas Schmitt (2000) uses 30 items in all. As for the word-completion tests, the general application is that each levels test has eighteen items (Cobb, 2000; Laufer & Nation, 1999; Nation, 2001; Schmitt, 2000). For the purpose of this study, it was deemed reasonable to compile the tests with 18 items in each test format, and thus, have equal number of items from both item types. The same principle was adhered to also in compiling the pre-/post-test, as well as the mid-term and final tests, since consistency would make it easier for the students to adapt to the test format and also would facilitate score comparisons. Moreover, a 100-point scale was utilized (Appendix D) for the conversion of the test scores as to inform the treatment group students about the mid-term and final examination results by means of the same scoring system employed at the school the study was conducted.

Since the total number of test items when the aforementioned levels test versions were combined was too many for the tests planned for piloting, three item elimination criteria were employed at this preliminary stage:

Firstly, when two items were identical in form and content in different versions of the standardized frequency-level tests, one was omitted.

Secondly, the words that were adopted from Indo-European languages and thus had the equivalent meanings in Turkish were omitted. For example *clinic*, *dynamic*, *contract*, *method*, and *project* were among the eliminated words. Although spelled differently in line with the rules of Turkish language (*klinik*, *dinamik*, *kontrat*, *metod*, and *proje* respectively), they were deemed true cognates since the similarities in spelling and meaning would facilitate recall and affect the test results. When such

words were omitted, the matching-definition test items became incomplete, thus the omissions were replaced by other words from the similarly formed incomplete items provided that their word forms were in agreement.

Thirdly, those items that were repeated in different test formats were retained only in one. For example, *subsequent* was included in both matching-definitions and word-completion tests. Of the two, the one in the latter test format was excluded since the number of items in the former was fewer.

After the aforementioned omissions, a total of 72 items were left. They were equally distributed among the two word levels and the two test formats, yielding two 36-item tests to be chosen from for the first piloting. These items were then divided into two groups within each word level so as to have a balanced number of word forms, namely, nouns, verbs, and adjectives, in each set. In this process, the items that contained more words of Latinate origin were particularly grouped in one of the two sets, and that particular set was spared for piloting since it would suit the purpose of this study better. The resulting tests for the first piloting were thus composed of a 5,000-word level test (Appendix E) and an academic vocabulary test (Appendix F), each of which contained eighteen matching-definition and eighteen word-completion items.

The first piloting was done with 47 freshmen students attending the English language teachers department of the same university where the study was to be conducted a semester later. Tests were administered in two sessions with one week's interval. Data gathered through both administrations were analyzed through classical item analysis as to evaluate the discrimination powers and the difficulty levels. In accordance with the item analysis results, the number of items was reduced to half so as to have a single test containing items from both levels. Computing these determinants was done by means of the equations given in Table 3.12, and the upper and lower groups consisted of 16 students each. In other words, one third of the total 47 test takers were ranked in each group according to their test scores. This ratio is in line with the principles applied for groups of less than 100 test takers (Bachman, 2004).

Table 3.12

Discrimination power and difficulty level equations

Discrimination Power (D)	Difficulty Level (p)
$\frac{R_U - R_L}{n}$	$\frac{R_U + R_L}{2n}$

Note. R_U: number of the Right answers in the Upper group; R_L: number in the Lower group; n: total number of test takers in the upper and lower groups.

The two determinants, namely the discrimination power (D) and the difficulty level (p), were the main criteria of item elimination in the second stage. In principle, those items that had D-values lower than .30 and p-values lower than .25 or higher than .75 were eliminated. An example of such an item is the word *frail* which was omitted because it had poor discrimination power (0.19) and a low level of difficulty (0.91). The word *zeal*, on the other hand, although not selected as the item to be tested since it did not discriminate well (0.13), was nevertheless retained as a distracter in the matching-definition format because it had a medium level of difficulty (0.38).

Yet another determining factor was the roots and affixes the words contained. In some cases, this determinant preceded the statistical considerations. Those items that did not yield a productive Latinate root were, therefore, omitted even if their discrimination powers and difficulty levels were within the acceptable limits.

Of the 36 items constituting the 5,000-word level pilot test, 28 were eliminated, twenty of which had low discrimination powers (D-values). The remaining eight items were not included in the test although their D-values met the criterion. In the latter case, their difficulty levels (p-values) and roots were taken into consideration.

Table 3.13

Items eliminated from the first pilot test of 5,000-word frequency level due to low discrimination power (D-value)

D	p	Item # - word
-0.06	0.41	1- loop
0.00	0.00	21- vault; 28- yarn; 29- shoved
0.06	0.03	23- disclosed; 30- bellow; 25- cavalry; 35- wholesome
	0.22	27- comprehend
	0.97	3- era
0.13	0.06	33- blend; 36- fragrant; 24- mound
	0.38	6- zeal
0.19	0.78	7- contemplate
	0.84	12- embarrass
	0.91	13- abolish; 16- frail
0.25	0.13	20- ballot; 32- devise

Table 3.14

Items eliminated from the first pilot test of 5,000-word frequency level due to their difficulty levels (p-values) and roots

D	p	Item # - word	Reason for elimination
0.31	0.22	22- ledge	high difficulty; root not Latinate
	0.59	10- obscure	rare root (not productive)
0.50	0.38	34- gloomy	root not Latinate
	0.75	11- shatter	low difficulty; root not Latinate
0.56	0.34	31- soothe	root not Latinate
	0.59	19- oath	root not Latinate
0.63	0.69	18- solitary	low difficulty; [resembling “solitaire”]
0.69	0.47	26- bruises	root not Latinate

Out of the eight items retained in the 5,000-word level pilot test, seven passed the criteria and were included in the test to be piloted the second time. One item, on the other hand, was an exception in that, although it had a discrimination-power value lower than the minimum .30, it was kept for the second piloting because it contained the prefix *ap- (ad-)* which forms numerous words with the three roots, namely, *pli*, *sent*, and *voc*, present in the already included items and also because it had medium level difficulty. Table 3.15 shows the D- and p-values of the retained items.

Table 3.15

Items meting the criteria for inclusion in the second pilot test of 5,000-word frequency level

D	p	Item # - word	Reason for inclusion
0.25	0.63	5- apparatus	Prefix: *ap- (ad-)*
0.38	0.63	4- compliment	Root: *-pli- (-ple-)*; affixes: *com-/-ment*
	0.75	15- exile	Prefix: *ex-*
	0.81	2- summit	Suffix: *-it (-et)*
	0.81	8- revive	Root: *-viv-* / affix: *re-*
0.50	0.38	17- profound	Prefix: *pro-*
	0.75	9- provoke	Root: *-vok- (-voc-)* / refix: *pro-*
0.56	0.53	14- resent	Root: *-sent-* / prefix: *re-*

The analyses of the second set of the pilot test containing academic vocabulary items were performed according to the same criteria applied for the 5,000-word level test. The following Tables 3.16 and 3.17 show the results obtained from these analyses.

Table 3.16

Items eliminated from the first pilot test of academic vocabulary due to low discrimination power (D-value)

D	p	Item # - word
-0.06	0.16	34- intimacy
	0.66	25- research
0.00	0.00	24- intellect; 26- anomaly; 30- saturated; 32- mature
	0.13	20- restore
	0.19	27- inherent; 35- doctrine
	0.38	22- ensure
	0.69	36- trend
	0.75	29- rely
	1.00	7- minimize; 15- vehicle
0.06	0.59	33- text
	0.97	9- identify; 14- schedule
0.13	0.81	16- scheme
	0.94	8- estimate; 10- alter
0.19	0.78	1- rigid
	0.84	18- access
	0.91	12- specify
0.25	0.88	11- deny

Table 3.17

Items eliminated from the first pilot test of academic vocabulary for having cognates and low difficulty levels (p-values)

D	p	Item # - word	Reason for elimination
0.38	0.56	19- rational	Cognate in Turkish: "rasyonel"
	0.75	13- accumulation	Reminds "akümülatör" in Turkish

Of the 36 items forming the academic vocabulary pilot test, 26 were eliminated, 24 of which had low D-values. The remaining two were not included in the test because one had a true cognate in Turkish, and the other reminded the word accumulator, which also had a true cognate. Although both items had D-values greater than the .30 limit, their p-values indicated low difficulty, further justifying the omission.

Eight of the remaining items in the first pilot test of academic vocabulary met the criteria and were included in the test to be piloted the second time. Moreover, each of them provided a different root forming numerous words in English. Two items were also included although they had discrimination powers lower than the minimum .30, and both were kept for the second piloting because one of them contained the root *sid* which is a productive root forming numerous Latinate words, and the other contained the combining form *equi-* which forms various compound words. The former of the two contained the prefix *sub-*, which is also a versatile affix deemed worth being covered in the instruction program. Table 3.18 shows the discrimination powers and the difficulty levels of these items:

Table 3.18

Items meeting the criteria for inclusion in the second pilot test of academic vocabulary

D	p	Item # - word	Reason for inclusion
0.13	0.06	23- subsided	Root: *-sid- (-sed-)*; prefix: *sub-*
0.25	0.25	4- equivalent	Combining form: *equi-*; suffix: *-ent*
0.31	0.78	17- integration	Root: *-teg- (-tag-)*; affix: *in- / ate / -ion*
0.38	0.31	28- attained	Root: *-tain- (-ten-)*; prefix: *at- (ad-)*
0.44	0.34	31- inspected	Root: *-spect-*; prefix: *in-*
	0.53	21- assess	Root: *-sess- (-sed)*; prefix: *ex-*
	0.66	6- subsequent	Root: *-sequ-*; prefix: *sub-*
	0.72	5- predominant	Affix: *pre- / -ant*
0.56	0.72	2- adjacent	Root: *-jac-*; suffix: *-ent*
		3- supplementary	Root: *-ple-* / suffixes: *-ment / -ary*

Reliability analyses of 5,000-word frequency level (Appendix G) and academic vocabulary (Appendix H) tests indicate that their Cronbach's alpha coefficients are .6266 and .6424 respectively, both of which are below the preferred .7 level (Pallant, 2001). However, they are deemed acceptable since the mean values (16.4255 and 18.1489) are close to 50 percent of the highest possible score which is 36 in this study (45.63% and 50.41% respectively).

3.6.2.3. Selection of New Items for the Second Pilot Test

Following the elimination process, 18 items remained from the first pilot test, eight of which was from the 5,000-word frequency level and ten from the academic vocabulary. Of these 18 items, fourteen were in matching-definitions format and four were in word-completion format. Therefore, 18 new items were needed as to compile a set of 36-item test for the second piloting. The selection of these items was carried out according to the criteria set for this practice.

Firstly, the number of roots was limited to ten so that the instruction program would be completed during the eleven-week semester, which excluded the introductory week and the mid-term and final examination weeks. The remaining week was reserved for the review of the words to be included in the mid-term examination so that the evaluation of test results would be presented to the participants and that the roots and affixes covered until then could be recapitulated. Furthermore, the instruction program was based on the principle that not the words included in the pre- / post-test, but other words formed by the same roots would be taught during the course sessions. Consequently, the rationale underlying the selection process was that all the items should contain productive roots which form a considerably large number of Latinate words in English and thus, would provide a collection of words in addition to those to be included in the pre- / post-test.

The pilot tests incidentally yielded not only an adequate number of roots after the elimination process, but also highly productive ones offering ample number of words to be taught. Therefore, the new test items were chosen, whenever available, from among the words that contained the alternative forms of the selected roots. For

example, the item *adjacent* contained the root *jac* in the simple form, and thus the new item, *reject*, was selected so as to have the alternative root form *ject*. Moreover, whenever possible, alternative root forms were placed in different test formats. Using the same example, *adjacent* was an item in the matching-definitions test, and thus *reject* was included in the word-completion section of the test.

Secondly, the items remaining after the elimination process provided an assortment of nine prefixes. The tenth, *super-*, suggested itself because the already selected prefix *sub-* was its opposite, and the prefixes *ad-/re-*, *in-/ex-*, and *pre-/pro-*, also formed opposite pairs. Only *con-* and *equi-*, the latter actually a combining form, were the single members of the group. As for the choice of suffixes, diversity was again the decisive factor whenever alternatives were available although the root-prefix combinations partly dictated the selection.

Thirdly, the diversity of word forms was also taken into consideration. Of the 18 items retained from the first piloting, four were nouns, six were adjectives, and eight were verbs. The aim was to have items as close in number as possible in all three forms. In the final selection, the eighteen items in each test section were in balance insofar as the aforementioned criteria permitted. Table 3.19 demonstrates the number of items in each word form and item type:

Table 3.19

Distribution of items in the second pilot test according to word forms and item types

Word forms	Matching definition f	Word completion f	Total
Noun	6	5	11
Adjective	6	6	12
Verb	6	7	13
Total	18	18	36

As seen in Table 3.19, the matching-definition test had six items in each word form, whereas the word-completion test contained also six items in the adjective form, but seven in the verb and five in the noun forms. The increase in the number in favor of the verb form was not intentional but occurred due to preference of sentences containing the words.

Lastly, the frequency level of words to be selected was also a concern of balance. Table 3.20 shows the distribution of items in respect of their word frequencies in each test format.

Table 3.20

Distribution of items in the second pilot test according to frequency levels and item types

Word lists	Matching definition f	Word completion f	Total
5,000-words	4	4	8
Academic vocabulary	7	10	17
Off-list words	7	4	11
Total	18	18	36

Note. In this study, the term "off-list" refers those words not included either in the 5,000-word list and lower levels or in the academic vocabulary.

Items chosen from the 5,000-word frequency level and the academic vocabulary formed the greater part of the test (69.4%), though in favor of the latter group (8 and 17 items respectively). This ratio was not deemed an imbalance since the participants of this study were the tertiary school students who were expected to know academic vocabulary to be able to read university-level texts and understand lectures. For the same reason, eleven items were chosen from the off-list words since academic study necessitates knowing low-frequency words beyond the 5,000-word frequency level and academic vocabulary.

In line with the criteria detailed above, the roots and affixes presented in Table 3.21 were selected as the bases of the words included in the test and in the instruction program. The Latinate roots, based on their core meanings, are ten in number but increase to twenty three in form as a result of changes stemming from the verb conjugation rules of Latin language, such as the conversion of *jac* in *adjacent* to *ject* in *reject*. Also the number of affixes increases due to alterations arising from the assimilation, addition, or omission of certain consonants or vowels when attached to roots, such as the change of the prefix *ad-* to *at-* in *attain* and the suffix *-al* to *-ar* in *spectacular*. The basic rules to these changes are deemed worth teaching since they present a valuable tool for learning more words with fewer basic meanings.

Table 3.21

Roots and affixes forming the test items

	Prefixes	Latinate Roots	(meanings)	Suffixes
	ad-	jac / ject	(to throw)	-al
	con-	ple / pli	(to fill)	-ary
	equi-	sed / sess / sid	(to sit)	-ate
	ex-	sent / sens	(to sense)	-cule
	in-	sequ / sec	(to follow)	-ed
	pre-	spec / spect	(to look)	-ence
	pro-	tag / tact / teg	(to touch)	-ent
	re-	ten / tent / tain	(to hold)	-et
	sub-	viv / vict	(to live)	-ible
	super-	voc / vok	(to call)	-ic
				-ion
				-ity
				-ive
				-ment
Total	10	10		14

With the new items added to complete the test for the second piloting, a need arose to move some of the distracters in an eliminated matching-definitions item to replace those in the selected ones for reasons specific to the word substituted. For example, *neutral* was replaced because it made a considerably easy distracter due to its likeness to "*nötr*" in Turkish, adopted from French. Also, some of the definitions were altered for similar considerations. For example, the definition of *apparatus* was changed because the presence of the word *machinery* in its definition would make it an easy key due to test-takers' possible familiarity with the similar-sounding word "*aparey*" in Turkish, again adopted from French. In fact, Turkish has many true cognates borrowed from French. As Ostler (2007) indicates, 25 percent of Turkish words were gained from this Indo-European language. Nişanyan (2003), in the appendix of his etymologic dictionary, lists 2970 words that fall in this category.

3.6.2.4. The Second Piloting

Prior to the beginning of the study, the second piloting was carried out with the participation of 38 freshmen students attending the English language teachers department of another university in the region. Since the main study was required to be conducted with freshmen students during the same semester in the department of the public university chosen as the setting, and since all the members of the

freshman class in the department would be participating in the main study, it was necessary to do the second piloting at a different institution. Furthermore, the departments being the same, an alternative group of prospective English language teachers were deemed an appropriate choice for the second piloting.

The discrimination powers (D-values) and difficulty levels (p-values) of the test items in the second piloting were calculated with the same equations used in the evaluation of items in the first piloting. Table 3.22 displays the analysis of the items common in both the first and the second pilot tests, whereas Table 3.23 shows the analysis of the items newly added to the second pilot test.

Table 3.22

Analysis of the common items in the first and second pilot tests

Second Piloting		First Piloting		Item # - word
D	p	D	p	
0.00	0.00	0.38	0.31	28- attained
0.08	0.04	0.13	0.06	31- *subsided*
	0.04	0.56	0.72	16- adjacent
	0.04	0.25	0.25	13- *equivalent*
	0.13	0.44	0.53	34- assess
	0.21	0.56	0.72	18- supplementary
0.17	0.42	0.44	0.66	15- *subsequent*
0.25	0.13	0.44	0.34	25- inspected
	0.13	0.50	0.38	17- profound
0.33	0.42	0.31	0.78	1- integration
	0.67	0.44	0.72	14- predominant
0.42	0.29	0.25	0.63	4- *apparatus*
0.50	0.25	0.56	0.53	12- resent
	0.42	0.50	0.75	8- provoke
	0.50	0.38	0.75	7- exile
	0.50	0.38	0.63	5- compliment
0.67	0.50	0.38	0.81	6- summit
0.75	0.63	0.38	0.81	9- revive

As the comparison of the figures in Table 3.22 indicates, of the nine items with the discrimination powers below .30 in the second pilot test, only two items, namely *subsided* and *equivalent*, were also below this level in the first pilot test (D-values = .13 and .25 respectively). Except for *subsided*, all the items in this group were of medium difficulty level in the first piloting (p-values between .25 and .75),

whereas all but one, namely *subsequent*, were of high difficulty level in the second piloting (p-values < .25).

Similarly, of the remaining nine items with the discrimination powers above .30 in the second pilot test, only one item, *apparatus*, was below the this level in the first pilot test (D-value = .25). As for the difficulty levels of the nine items in the first piloting, six were of medium-difficulty level (p-values between .25 and .75) and three were of low-difficulty level (p-values > .75) in comparison with those in the second piloting, all of which were of medium-diffculty level.

Table 3.23

Analysis of the newly added items to the second pilot test

D	p	Item # - word
-0.08	0.04	29- tangible
0.00	0.00	21- sedative; 22- compliance; 24- vitality
0.08	0.04	19- *consented*
0.17	0.08	10- efface
	0.17	11- prevail; 27- vocation
0.25	0.13	36- superficial
	0.63	26- *session*
0.42	0.21	3- *sequel*
	0.29	32- contact; 35- domestic
	0.38	30- preparation
0.50	0.58	20- rejects
0.58	0.29	2- retention
	0.38	23- spectacular; 33- fundamental

As table 3.23 indicates, ten of the newly added items had discrimination powers below .30, while the remaining eight were discriminating well (D-values between .42 and .58). The items in the latter group were all of medium-difficulty level, while only one item, *sequel*, was of high-difficulty level (p-value = .21). As for the rest of the new items, only one out of ten, namely, *session*, had a medium-difficulty level (p-value = .63) with a discrimination power fairly close to the acceptable limit (D-value = .25). All of the remaining items in this group had low discrimination powers and high-difficulty levels (p-values < .25). This was expected, and also was natural for foreign language learners, since eight of these items were off-list words and only one of them, namely, *consented*, belonged to academic vocabulary.

Reliability analysis of the newly combined test for the second piloting (see Appendix I for a more detailed analysis) indicate a Cronbach's alpha coefficient of .6287 which may be low due to the limited number of students (N = 38). There were six items that had negative item-total correlation values in the second piloting. Three of them, namely *adjacent*, *equivalent*, and *supplementary*, were included also in the academic vocabulary section of the first pilot test, and all three of them had yielded positive correlation values; two of them also discriminated well (D-values = .56), while one, namely, *equivalent*, was below the minimum acceptable level of .30 (D-value = .25) but had medium level difficulty (p-value = .25).

The other three items, namely *efface*, *session*, and *tangible*, that also had negative discriminating values in the second pilot test were not changed because off-list items are liable to having low discriminating powers and often high difficulty levels. On the other hand, they are low-frequency words worth learning as to be able to comprehend the extensive readings required in tertiary education. At this point, it was decided to keep these items and check their reliabilities also after the pre-test of the main study to be administered to a larger group of learners.

Table 3.24 summarizes the internal consistency of the tests which was assessed for each administration in the study by computing Cronbach's alpha coefficient.

Table 3.24

Reliability coefficients for the pilot test and the main study test administrations

Test purpose	Test name (36-items in each)	N	α
Piloting	First pilot test (5,000-word list items)	47	.6266
	First pilot test (Academic vocabulary items)	47	.6424
	Second pilot test (Both word lists combined)	38	.6287
Main study	Pre-test	122	.7341
	Post-test	245	.7721

Note. The second pilot test was also administered as the pre-test and the post-test

As Table 3.24 demonstrates, coefficient alpha reliability values of the first pilot test ($N = 47$) were .6266 for the 5,000-word frequency level items and .6424 for the academic vocabulary items. The alpha value of the second pilot test was .6287, which was deemed to be due to the low number of participants ($N = 38$). Indeed, the same test employed also as the pre-test ($N = 122$) and post-test ($N = 245$) yielded alpha values above .7 (.7341 and .7721 respectively), indicating that the internal consistency of the main study test is justified. For the detailed analysis of pre-test and post-test reliability data, see Appendices J and K respectively.

3.6.3. Interviews

Sixteen interviews were carried out on one-on-one basis as to prevent peer influence and were audio-taped in a small-sized meeting room as to provide a relaxed environment out of the classroom atmosphere. To afford further comfort and to facilitate spontaneous response in a natural flow, Turkish was preferred as the language of the interview. The preference for the native tongue as the communication means was also based on the fact that the participants, as the speakers of English as a foreign language, had limited practice, and thus, interviews would otherwise be constrained in terms of fluent expression of the participants' personal views.

The opinions of the participants were elicited through the following open-ended questions:

1) Do you find what you learned in this course useful? If yes, in what ways it was useful? [If prompt needed:] For example, does it help you in guessing the meaning of the words you do not know?
2) Did the things you learned in the course contribute to other courses you took? How?
3) Do you think your word knowledge has expanded?
4) Do you think what you learned in the course will be beneficial for you in future? How? [If prompt needed:] For example, would it help you to learn more words?
5) Would you consider employing a similar approach in teaching vocabulary to your prospective students?

The interviews were conducted on voluntary basis. During the last course session, the treatment group participants were invited to contribute, and it was announced

that the timing for the interviews was set to be after the final examination. The aim was to have the volunteers feel comfortable in conveying their opinion after the course was completed and the testing was done. Also, as to eliminate the possibility of participants' prejudice due to success or failure, students' scores were not disclosed before the interviews.

Furthermore, participants were encouraged throughout the term to express their views on the course content and the instruction method, and they were urged to comment freely in written or in person. They were provided with the instructor's e-mail address to extend their comments or questions. The motive was to have them, as the future teachers of English, think on the teaching and learning process critically. Also, prior deliberation on the issue was expected to help prepare the basis for the intended interviews at the end of the course.

3.7. DATA COLLECTION PROCEDURE

The data for the present experimental study were collected in four phases, namely, pre-test administration, treatment group instruction, post-test administration, and interviews. The pre-test and the post-test (see Appendix C) were identical, and the former was administered at the beginning of the semester while the latter was administered at the end, with a thirteen-week interval that included the two-week-long mid-term examination period. Ten sessions of instruction were devoted to teaching the selected Latinate word-parts to the treatment group, and one session was reserved for review after the mid-term examination (Appendix L) as to share the results with the participants and to comment on the incorrect responses, providing clarification and reinforcing the main points covered in the previous weeks. The post-test was a part of the final examination (Appendix M), and after the post-test, interviews were carried out by the researcher with the treatment group students who volunteered to participate.

3.7.1. Phase 1: Pre-test Administration

The freshmen undergraduate participants were given a pre-test at the beginning of the first semester. Along with the test, a questionnaire (see Appendix A) was handed out to be filled in as to collect information on the participants' background as well as

their word-study habits. The full forty-minute class time was reserved for filling out the questionnaire and for taking the test in one session. Oral instruction was given before the questionnaire and the pre-test were distributed. Test scores were not disclosed, and the participants willing to learn the results were informed that the test was aimed to determine the overall vocabulary level of the class with the purpose of providing information for the instructor, and that the scores would not affect their grades. Indeed, the core data collected for this experimental study in response to the research questions were set apart from the mid-term and final examination results. Thus, the treatment group was expected to study the Latinate words and word-parts covered in the instruction program, and not the words included in the pre-test.

3.7.2. Phase 2: Treatment Group Instruction

The treatment group, comprising half of the freshmen participants, received instruction on vocabulary learning through Latinate word parts one class-hour a week for eleven weeks, while the control group did not. The instruction program included ten root verbs, ten prefixes, and fourteen suffixes constituting the Latinate words included in the pre-test, but none of these words were the same as those covered during the instruction. The rationale behind this principle was that the research results would reflect not the knowledge of individual words taught during the semester but the hypothesized positive effect of Latinate word-part awareness created through instruction on the selected roots and affixes. Thus, the post-test to be given at the end of the semester would elicit the extent of possible use of word-part knowledge in arriving at the meanings of the words tested therein.

3.7.2.1. Format of the Instruction

The instruction was organized as to cover one root per course hour (Appendix N). When the selected Latinate words containing the root under study were presented, the affixes they contained were also taught along. The words and the word-parts in focus were reflected on a large screen with the aid of a computer and a projector. Sample sentences and the most common use of prepositions and collocations of the studied words were also shown on the screen. Further samples were given orally by the instructor, and the questions raised by the participants were clarified before

proceeding to the next sample word. The principle was to cover as many words as feasible in one session so that the meaning of the root in focus would be established.

Not only the meanings, but also the alternative forms of the roots were taught. For example, the basic present form of the root *-sent-* which means *to feel* appears as *-sens-* both in its past and perfect forms according to the verb conjugation rules of Latin language. Thus, the participants' awareness would increase if they knew the general rule to this change: when the root ends with /s/, then it is probable that the root in its basic form ends with either /t/ or /d/. Keeping this in mind, the participants would be able to see the similarity in the root meaning of an unknown Latinate word and the meaning of the word they already know. To create an awareness of the changes in the consonants or the vowels forming the roots, basic information on the sound alterations in verbs, nouns, and adjectives was conveyed the first time they appeared, and then the rule was repeated every time an example of the change came up. The purpose of this approach was to provide the participants a means to have access to the meanings of more words with a fewer number of roots to learn.

Consonant and vowel change rules also apply to affixes, and attention to these alterations was similarly drawn during the instruction. Also, as to form a sense direction that prefixes ascribe to the words, the instructor used gestures to visually indicate what a prefix adds to the word in focus. For example, to discriminate the prefixes *dis-* and *se-* (away, apart) that might seem to the participants to have the same meaning, the instructor would circle her arms in front and expand the circle forward to signal the prefix *dis-* (as in *distant*, standing away), but would hold her forearms parallel in front and expand the space in between by pulling them sideways to designate *se-* (as in *separate*, put apart). Likewise, all the directional meanings of prefixes were linked to gestures and signaled each time they came up combined with the roots. The aim in doing so was to reinforce learning and recalling the meanings of word-parts and thus, the words formed by them.

When applicable, pictures, drawings, historical facts, mythological references, anecdotes, mimicry, and mnemonics were also used to support word meanings. For instance, as seen in the sample handout in Appendix O, the well-known historic event of Brutus' assassination was mentioned while teaching the word *vocative*. As

the prospective English language teachers, the participants would academically need to know the term ascribed to this grammatical case. To make it clear, the instructor voiced the case also in Turkish, the participants' native language, using the same example, "Ey Brutus," comparing it with "Brute" in Latin and to "O Brutus" in English. When suitable, such aural as well as visual means were utilized throughout the course to assist learning.

Table 3.25 gives a truncated example of instructional material used in the classroom. The solid lines added to the table represent each word under study, and the dashed lines represent each slide projected on the screen in relation to the meanings of the words and the word-parts forming them. The slides provided a visual aid for the instructor to draw attention to the written forms and to convey the related information orally. The three sample words included in the table, namely, *dissent*, *dissenter*, and *dissention*, all derive from the same root, *sent / sens*. The information on the affixes previously worked over was not given in the subsequent slides, but such affixes were repeated each time they reappeared as to have the participants notice and recall. Dictionary definitions of the words were simplified when necessary to facilitate understanding. Sample sentences were either constructed by the instructor or taken from dictionaries and books. Reference footnotes were provided on the slides for authentic statements.

Table 3.25

Samples of classroom presentation slides

sent – sens > *to feel*
dissent
dis - sent
dis- > a prefix meaning *apart*, *away*
(v.i.) to differ in opinion, especially from the majority; to disagree
(n.) a disagreement, dissatisfaction, opposition
"Two of the justices dissented from the majority of decision."
dissenter
dis - sent – er
verb + *-er* = noun > "doer" of the action
a person who *dissents* from the majority opinion
"As a dissenter, he found himself the subject of the group's animosity."
dissension
dis - sens - ion
-ion > a noun suffix
Dissension usually implies a profound disagreement and bitter conflict.
"a plan to spread dissension"
It also applies to conflict within a group or to members of the same group.
"dissension among the Democrats"

Special emphasis was given to pronunciation, and the students were prompted alternately to read aloud the words and sentences when first presented on the screen. The instructor repeated each for clarity and, if the case was, for correction.

Table 3.26 shows the number of words taught and also the number of words included in the pre- / post-test but not covered during the instruction.

Table 3.26

Number of taught and tested Latinate words containing the selected roots

Latinate Roots	Meanings	# of words taught during the Instruction	# of words included in the Pre- / Post-test
sent / sens	*to sense*	20	2
spec / spect	*to look*	19	2
voc / vok	*to call*	19	2
viv / vict	*to live*	16	2
sed / sess / sid	*to sit*	16	3 + 1*
tang / tact / teg	*to touch*	15	3
jac / ject	*to throw*	14	2
ten / tent / tain	*to hold*	12	2
ple / pli	*to fill*	10	3
sequ / sec	*to follow*	9	2
23	10	150	23 + 1

Note. Latinate root "sess" was tested twice.

As the Table 3.26 demonstrates, a total of 150 words composed of 10 root verbs under study were taught to convey a basic knowledge of Latinate roots under study and to build an awareness of their relation to word meanings. The average of words taught was 6.5 per root, ranging from maximum 10 to minimum 4 words bearing the same root. Stemming from the rules of verb conjugation in Latin language and, in the case of *voc / vok*, as a result of English pronunciation system, the number of roots forming these words totaled to 23. Of the 24 words containing the selected roots that were assessed in the pre- / post-test, only one contained a repetitive root, namely *sess*, which is marked as 3+1 in the Table 3.26.

The pre- / post-test was comprised of 36 test items, and as indicated in the previous paragraph, only 24 of them contained the roots selected for the Latinate word-part instruction. The remaining 12 test items bore other roots that were not included among those selected ones. These words, while retained to complete the number of test items, also served as a means for emphasizing the affixes covered during the instruction. The variety of roots they contained presented an opportunity to have a wider choice of alternative words to work on the affixes. The first class-session after

the mid-term examination was spared for this purpose, and the affixes covered in the study were focused upon, while the root meanings were given with comparatively less weight.

For example, the test-word *efface* contains the root *fac-* (L. *facere*, to make, to do) which also is the root of the English word *face*, literally, *one's make*. During the affix-recapitulation session, without mentioning the test-word *efface*, the well-known word *face* was emphasized while working on the practice words containing the same root, namely *surface*, *subsurface*, *preface*, and *facet*, which gave the opportunity to work on affixes selected for the study, *sur-* (*super-*), *sub-*, *pre-*, and *-et* respectively. Since the prefix *ex-* (*ef-*) was also taught in combination with other roots, and since the participants were taught to deduce meanings, they were expected to discern the denotation of the test-word, *off-do: erase*, and match the definition of its connotation *withdraw modestly* given as the key in the test.

3.7.2.2. Course Handouts

To give the participants a source for self-study, the contents of the slides presented in each session were transferred from presentation format into word-processing format and the copies were distributed to the treatment group students at the end of each session (see Appendix N for sample handout). They were informed in advance that the printed course material would be made available after each session so that the students would not be attempting to copy down the information reflected on the screen, but rather would be paying attention to the extra information conveyed orally by the instructor. The aim was to make it possible for the students to take part in the classroom discussions, to ask questions, and to respond to the questions addressed to them by the instructor.

3.7.2.3. Classroom Review

At the beginning of each course session starting from the second, a new set of fewer words containing the root studied in the previous session was presented as to review and reinforce the covered word-part before proceeding to the next. The participants were informed during the first session that, from the second session onwards, they would be expected to work on the words and word parts presented in the previous

session and that, after a short summary, there would be a classroom practice with additional words as to help them recall the word parts through the words not covered previously. Classroom participation was encouraged, and students were prompted to respond to the fill-in-the-blank practice questions until the correct word came up. Table 3.27 shows three practice questions, each of which contains a sentence with a blank space to be completed by supplying the appropriate word. Sentences included therein were specifically selected to contain the same words presented in Table 3.25 as to keep the samples consistent. Again, each dashed line on the table represents a slide projected on the screen.

Table 3.27

Sample classroom practice questions

sent – sens > *to feel*
I strongly ..... from what the last speaker has said about the recent developments.
dissent
There are a few .....s criticizing the leader for his decisions.
dissenter
There was a bitter ..... between the rival groups in the party.
dissension

3.7.2.4. Mid-term and Final Examinations

The mid-term and final tests were administered as the means to gauge the progress students made in learning vocabulary during and after the treatment. Since the instruction given on word parts did not cover any of the Latinate words included in the pre- / post-test, the mid-term and final tests were compiled to contain only the items selected from those words studied in the classroom. To ensure the uniformity of tests administered all through the study, it was decided to employ the same item types utilized in the pre- / post-test also in the mid-term and final tests. Therefore, all the tests administered during this study contained eighteen word-completion items and eighteen matching-definition items. The only difference in application was that half of the matching-definition items in the mid-term test were word definitions, and

the remaining half, affix meanings. The purpose was to draw students' attention to the importance of the latter group in decoding the word forms and meanings.

3.7.3. Phase 3: Post-test Administration

The post-test was administered to the treatment group students along with the final examination, both of which were completed in one sitting at the end of the semester. Since the treatment group students were given Latinate word-part instruction, the comparison of pre- and post-test scoress would reveal the effect of instruction on their vocabulary acquisition. In contrary, freshman and senior control group participants took only the post-test at the end of the semester. Freshman control group participants had also taken the pre-test but had not received word-part instruction; so, the comparison of the pre- and post-test scores would demonstrate their progress in vocabulary learning during the semester as a result of attending the compulsory courses given in English as a part of the curriculum. On the other hand, senior class students took only the post-test as the second control group members. Since they also had not received word-part instruction, the post-test assessment would show their level of vocabulary knowledge after three and a half years of receiving academic instruction in English.

3.7.4. Phase 4: Interviews

Sixteen treatment-group members (26.2% of the participants in the group) were interviewed by the researcher at the end of the semester, a week after the post-test and the final examination were given. Announcement for the interviews was made during the last session of the instruction, and they were invited to participate on voluntary basis. Neither the post-test nor the final examination scores were disclosed to the students prior to the interviews, but the frequency data of the post-test scores were analyzed by the researcher in order to check the possible prejudice of the interviewees stemming from an anticipated success or failure. Table 3.28 shows the frequencies of the post-test scores interviewees obtained and the percentages of the interviewees below and above the treatment group mean score ($\bar{x}$ = 56.1).

Table 3.28

Frequency data of the interviewee post-test scores

Interviewee Post-test Score	Interviewee f	Total f	%
80	1		
64	3		
61	1	5	31.25
55	1	11	68.75
53	2		
50	2		
47	1		
44	2		
42	1		
39	1		
30	1		
Total	16	16	100

Of the 16 interviewees, only five scored above the post-test mean score ($\bar{x}$ = 56.1) of the treatment group students, whereas 11 obtained scores below the mean. Therefore, taking also the aforementioned facts, namely conducting interviews on a voluntary basis and not revealing the scores in advance, it is deemed that student prejudice should not be a matter of concern in evaluating the interview results.

3.8. DATA ANALYSIS

Although the freshman class was randomly divided into two groups, treatment and freshman control, the researcher deemed it necessary to check whether there was a statistically significant difference between the two groups with regard to their English proficiency and / or vocabulary knowledge levels.

Insofar as the former was concerned, the proficiency test scores of the participants already available in school records were compared. In order to be eligible to attend the freshman class, the prospective students are required to take a proficiency test before the courses start, and only those students who score above the minimum passing level become freshmen, and the rest attend the prep-class to improve their English language knowledge. Utilizing the official scores of the freshmen participants, an independent samples *t*-test was conducted as to find out whether

there was any statistically significant difference between the proficiency levels of the treatment and freshman control groups.

To the extent that the vocabulary knowledge levels of the two groups at the beginning of the semester were concerned, the scores obtained from the pre-test administered by the researcher were compared as to discover if one group or the other was more advanced. An independent sample *t*-test was conducted to observe the difference, if any, and to record the extent of its significance.

In response to the first research question, the pre-test and the post-test scores obtained by the participants of the treatment and freshman control groups were compared both within the group and between the groups. Paired samples *t*-tests comparing the pre- and post-test scores of each group were conducted to find out whether there was any improvement in the scores of either group, and, if in the affirmative, whether the difference was statistically significant. Furthermore, an analysis of the results was also made as to find out whether the Latinate word-part instruction carried out through the semester had any positive effect on the treatment group participants as compared to those of the freshmen control group who did not receive the same instruction. Independent sample *t*-tests comparing the post-test scores of each group were conducted as to find out whether there was a statistically significant difference between their scores.

In response to the second research question, the post-test scores of the freshmen participants in the treatment group were compared with those of the senior students in the second control group. An independent sample *t*-test was conducted to reveal the difference in the vocabulary levels of the two groups as to find out whether having attended the English language teachers department three years longer than the treatment group participants would be a privilege for the senior students in gaining advanced level vocabulary knowledge or, conversely, having received Latinate word-part instruction for a semester at the beginning of their tertiary education would be an advantage for the freshmen students in closing the time gap by learning the same vocabulary items sooner. The analysis of test scores in this connection was aimed to expose the effect of word-part instruction on vocabulary learning as opposed to vocabulary gain through academic instruction in the long run.

The aforementioned quantitative analyses were conducted using version 11.5 of the SPSS program.

Personal views imparted by the treatment group volunteers during the interview sessions on the course content, instruction materials, and the teaching method were analyzed qualitatively by the researcher. Answers to the five open-ended questions and, when the flow of the interview necessitated, responses to the researcher's prompts as to elicit comments were transcribed, and a content analysis was performed. Spontaneous comments made by the interviewees in relation to other issues than those addressed by the above questions were also analyzed and presented separately.

CHAPTER IV
RESULTS

The results are presented under six subheadings, namely, pilot tests, treatment and control groups, the pre-test, treatment evaluation, the post-test, and interviews.

4.1. PILOT TESTS

The tests compiled for the purpose of conducting this experimental study were piloted in two phases, both of which were carried out by the researcher. The pilot tests were administered to the freshmen students attending the English teachers' schools at two different universities.

4.1.1 The First Pilot Test

The first piloting was done a semester before at the same state university in which this research study was conducted. Table 4.1 shows the descriptive data related to the first pilot test, and the following Figures 4.1 to 4.3 illustrate the distribution of the scores obtained by the participants:

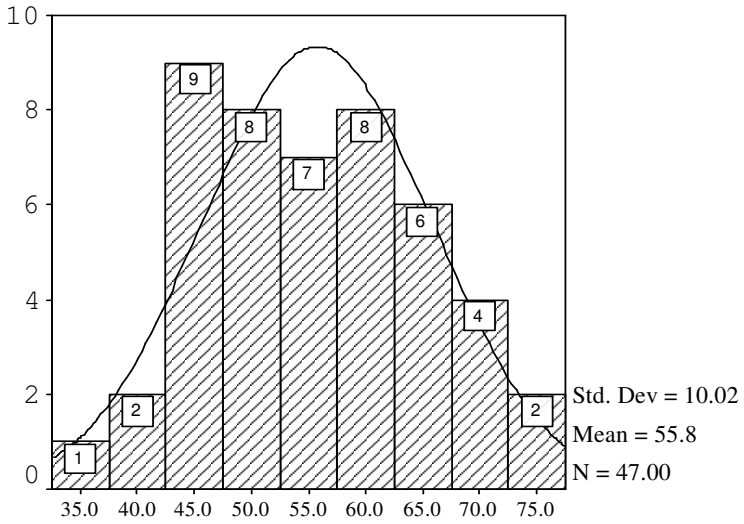
Table 4.1
Descriptive data of the first pilot test

	N	Min	Max	$\bar{x}$	*SD*
5,000-word Level	47	33	77	55.77	10.018
Academic Vocabulary	47	19	66	42.70	10.511
Pilot Test 1 (combined)	47	26	71	49.23	9.507

Figures 4.1 and 4.2 illustrate the distributions of the 5,000-word level and academic vocabulary test scores respectively, and Figure 4.3 displays the distribution when both levels are combined.

Figure 4.1

5,000-word level test score distribution of the first pilot test

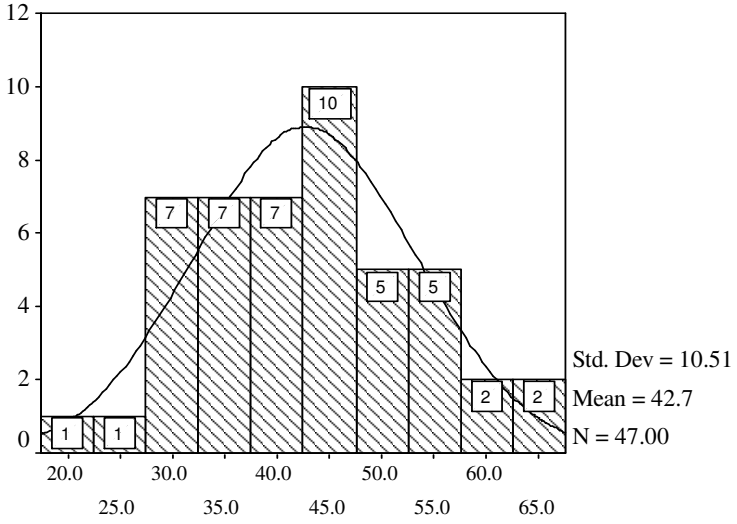


Pilot Test 1 -- 5,000-word Level Test Scores

Students who took the first pilot test ($N = 47$) received 5,000-level test scores between 33 and 77 ($\bar{x}$ = 55.8; *SD* = 10.02).

Figure 4.2

Academic vocabulary test score distribution of the first pilot test

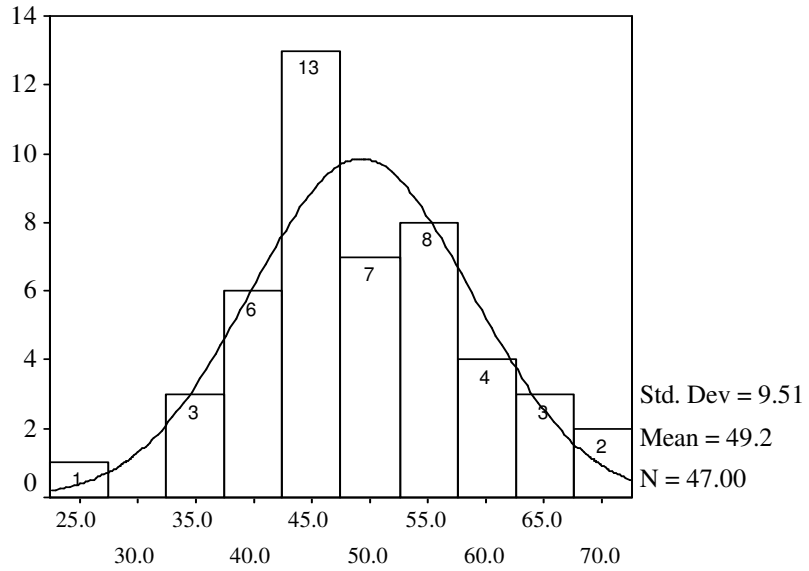


Pilot Test 1 -- Academic Vocabulary Scores

Students who took the first pilot test ($N = 47$) received academic vocabulary test scores between 19 and 66 ($\bar{x}$ = 42.7; *SD* = 10.51).

Figure 4.3

Combined levels test score distribution of the first pilot test



Pilot Test 1 Scores (Levels Combined)

Students who took the first pilot test ($N = 47$) received combined levels test scores between 26 and 71 ($\bar{x} = 49.2$; $SD = 9.51$).

4.1.2 The Second Pilot Test

The second piloting was carried out at a private university prior to the commencement of the study. The test was administered to the freshmen students attending the teacher training school at this institution. Table 4.2 shows the descriptive data related to the second pilot test, and the following Figure 4.4 illustrates the distribution of the scores obtained by the participants:

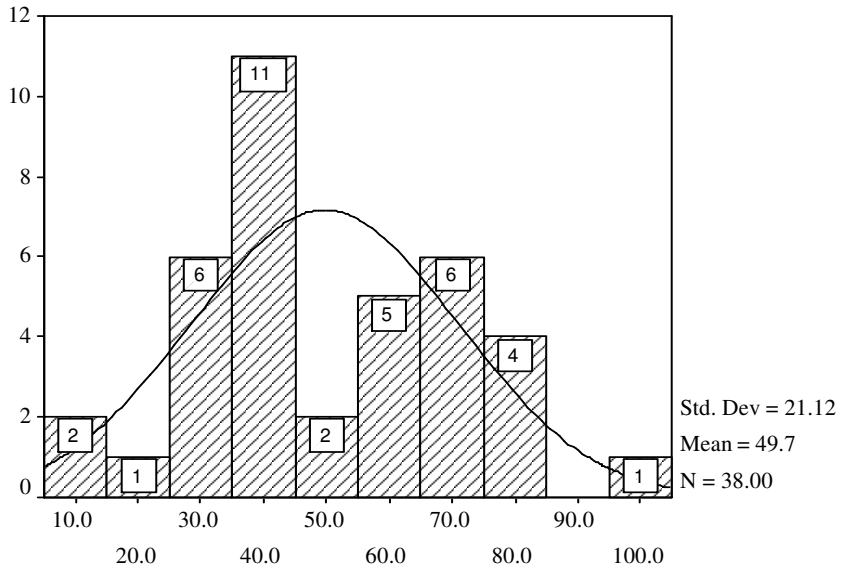
Table 4.2

Descriptive data of the second pilot test

	N	Min	Max	$\bar{x}$	*SD*
Pilot Test 2	38	10	99	49.71	21.120

Figure 4.4

Score distribution of the second pilot test



Students who took the second pilot test (N = 38) received test scores between 10 and 99 ($\bar{x}$ = 49.7; SD = 21.12). The frequency distribution of pilot test results reveal that 47 students taking the first pilot test received scores between 26 and 71, while 38 students taking the second pilot test obtained scores between 10 and 99 (Kurtosis -.567 and -.143 respectively). The negative values indicate that both tests show platykurtic distributions. Since twice the standard error of kurtosis values (2 x *sek* = 1.500 and 1.362 respectively) fall between the -1.7888 and +1.777 range, they remain statistically within the expected range of chance fluctuations (Brown, 1997).

4.2. TREATMENT AND CONTROL GROUPS

The participants of this study were the freshman and senior class students of English language teachers' school of a state university in Turkey. The members of freshman class were divided into treatment and control groups, whereas those of the senior class functioned only as the second control group. The freshman class group was formed randomly insofar as the groups were selected by taking only the availability of class times and classrooms into consideration as to fit the treatment into the course

schedules of the participants. As it is the usual application at the school, the freshmen students were already separated into four classes by equally dividing the freshman class list in the alphabetical order of their last names. The weekly course programs of the two of the classes were suitable to include once-a-week treatment sessions into their schedule, and thus, the remaining two classes were assigned as the freshman control group.

Despite the fact that the group selection was randomly made, English proficiency test scores of the freshmen students already available in school records were analyzed as to see if there was a significant difference between the two groups as far as their assessed proficiency was concerned. Since the freshmen candidates are required to take this standardized test to be eligible to attend the academic courses, their test scores were deemed to be a practical means to check the possible variation in the performances of the two groups.

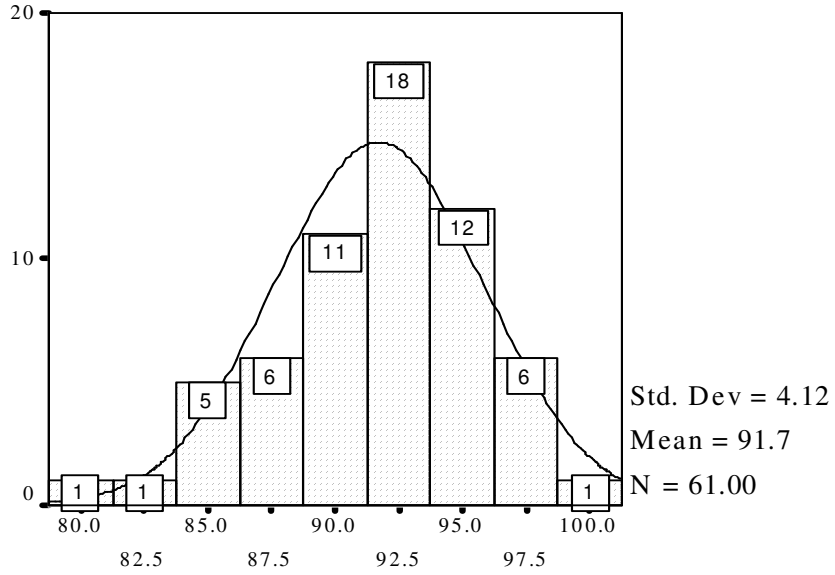
Table 4.3 shows the descriptive data related to the proficiency level test scores of the treatment group students, and the following Figure 4.5 illustrates the distribution of their scores.

Table 4.3
English proficiency test score data of the treatment group

	N	Min	Max	$\bar{x}$	*SD*
Proficiency Test	61	79	99	91.70	4.120

Figure 4.5

English proficiency test score distribution of the treatment group



Treatment group students ($N = 61$) received proficiency test scores between 79 and 99 ($\bar{x} = 91.7$; $SD = 4.12$).

Table 4.4 shows the descriptive data related to the proficiency test scores of the freshman control group students, and the following Figure 4.6 illustrates the distribution of their scores.

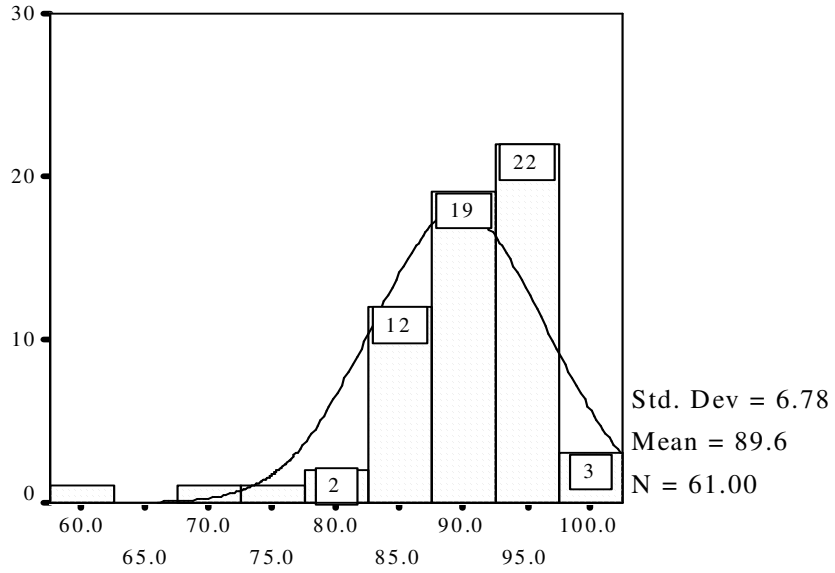
Table 4.4

English proficiency test score data of the freshman control group

	N	Min	Max	$\bar{x}$	*SD*
Proficiency Test	61	60	98	89.62	6.783

Figure 4.6

English proficiency test score distribution of the freshman control group



Freshman control group students ($N = 61$) received proficiency test scores between 60 and 98 ($\bar{x} = 89.6$; $SD = 6.78$).

The frequency distribution of the proficiency test results reveal that 45 treatment group students received scores between 88 and 96, while 52 freshman control group students obtained between 83 and 96 (Kurtosis .647 & 6.233 respectively). In other words, when the group performances are compared, there are more students in the control group who are clustered around the mean score than there are in the treatment group. On the other hand, the minimum score of 79 obtained by the treatment group falls down to 60 in the control group (Skewness -.716 & -.2.082 respectively).

In order to find out whether there was a significant difference between the scores the treatment and freshman control group students received from the proficiency test, an independent samples *t*-test was conducted. Table 4.5 shows the comparison of the tests scores received by the treatment and freshman control groups, and the following Figure 4.7 illustrates their scores.

Table 4.5

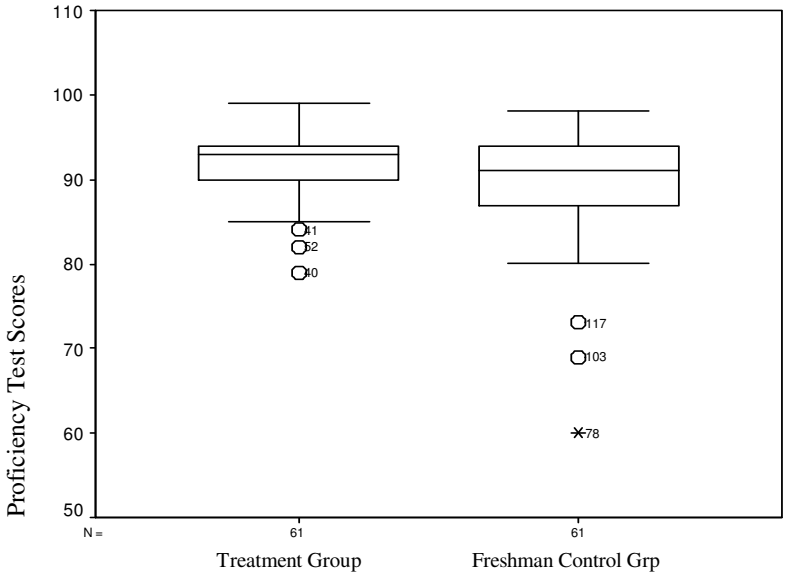
English proficiency test score comparison of the treatment and freshman control groups

	Groups	*N*	$\bar{x}$	*SD*	*t*	*df*	*p*
Proficiency Test	Treatment	61	91.70	4.120	2.049	120	.043
	F. Control	61	89.62	6.783			

As Table 4.5 indicates, there is a statistically significant difference between the two groups in favor of the treatment group ($p < .05$). However, the significance level is low and very close to the .05 border.

Figure 4.7

English Proficiency test score comparison of the treatment and freshman control groups



When the descriptive data given in Table 4.5 and the chart presented on Figure 4.7 are taken into account, the difference in the mean scores obtained from English proficiency level test is not deemed a factor to pose alone either a significant advantage to the treatment group or a great disadvantage to the control group in respect of the students' linguistic performance. The pre-test score comparison presented in the following section supports this assumption.

4.3. THE PRE-TEST

The pre-test administered at the beginning of the semester contained 36 items, half of which was of matching-definitions type considered to elicit receptive word-knowledge, while the other half was of word-completion type considered to activate productive word-knowledge. The reliability data yielded an alpha coefficient of .7341 (see Appendix J for details).

Table 4.6 shows the descriptive data related to the pre-test scores of the treatment group students and the following Figure 4.8 illustrates the distribution of their scores.

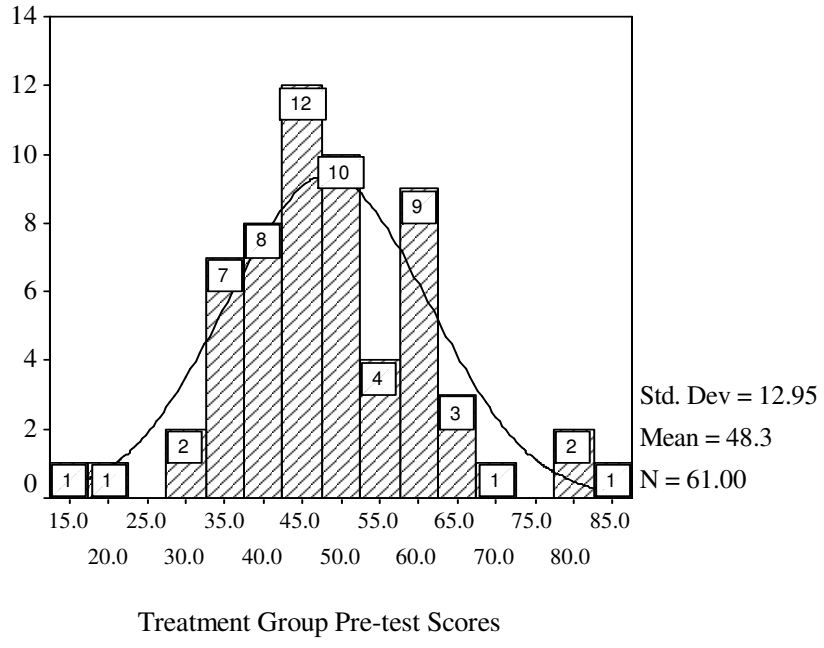
Table 4.6

Pre-test score data of the treatment group

	N	Min	Max	$\bar{x}$	*SD*
Pre-test	61	16	83	48.32	12.953

Figure 4.8

Pre-test score distribution of the treatment group



Treatment group students (N = 61) received pre-test scores between 16 and 83 ($\bar{x}$ = 48.3; SD = 12.95).

Table 4.7 shows the descriptive data related to the pre-test scores of the freshman control group students and the following Figure 4.9 illustrates the distribution of their scores:

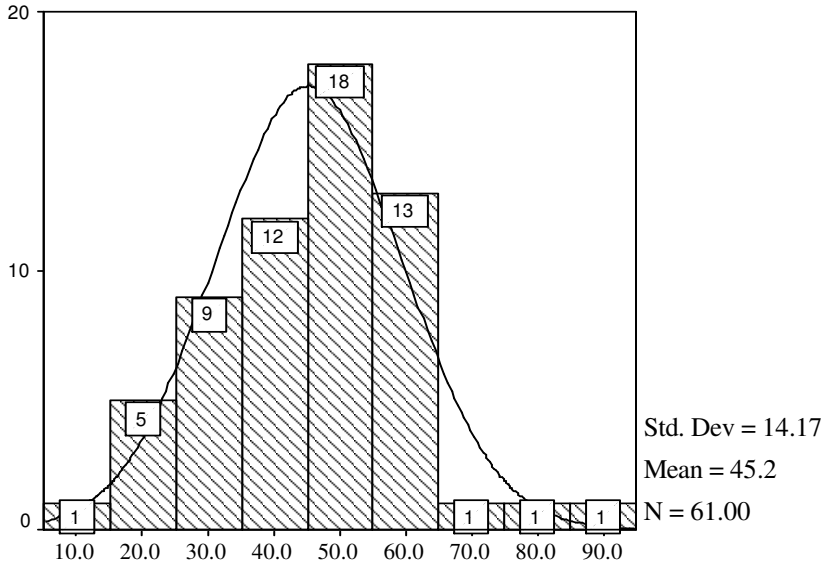
Table 4.7

Pre-test score data of the freshman control group

	N	Min	Max	$\bar{x}$	*SD*
Pre-test	61	8	86	45.25	14.166

Figure 4.9

Pre-test score distribution of the freshman control group



Freshman Control Group Pre-test Scores

Treatment group students (N = 61) received pre-test scores between 8 and 86 ($\bar{x}$ = 45.2; SD = 14.17).

To find out whether the difference between the pre-test scores of the treatment and freshman control group students, an independent samples *t*-test was conducted. Table 4.8 presents the comparison of pre-test scores obtained by the two groups, and the following Figures 4.10 and 4.11 demonstrate the range and distribution of their scores.

Table 4.8

Pre-test score comparison of the treatment and freshman control groups

	Groups	*N*	$\bar{x}$	*SD*	*t*	*df*	*p*
Pre-test	Treatment	61	48.32	12.953	1.251	120	.214
	F. Control	61	45.25	14.166			

The pre-test mean score of the treatment group is slightly higher than that of the freshman control group, but the difference in the scores of the two groups is not statistically significant ($p > .05$).

Figure 4.10

Pre-test score comparison of the treatment and freshman control groups based on number of cases

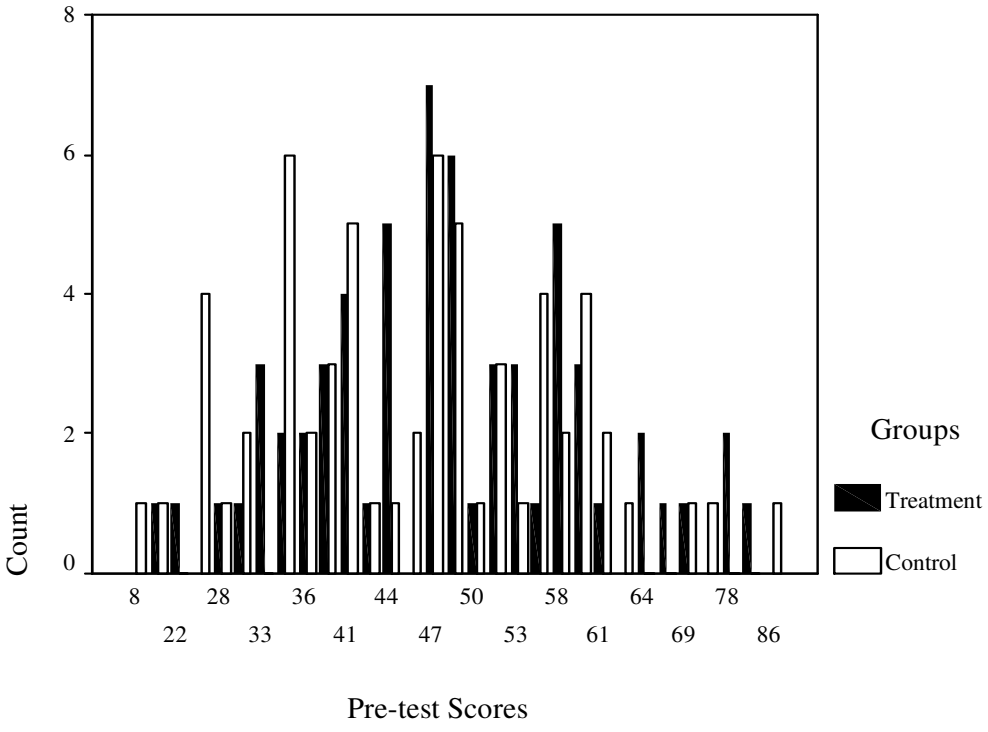
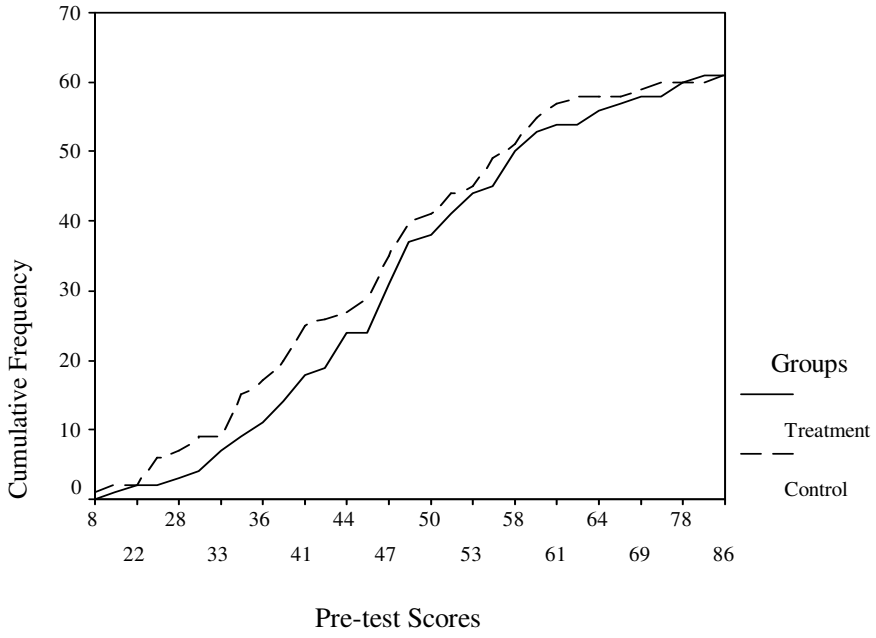


Figure 4.11

Pre-test score comparison of the treatment and freshman control groups based on cumulative frequencies



The analysis conducted for the comparison of the treatment and freshman control groups reveal that the two randomly selected groups do not differ significantly in their vocabulary knowledge levels.

4.4. TREATMENT EVALUATION

The researcher carried out a semester-long Latinate word-part instruction working with the students in the freshman treatment group only. In line with the instruction program, two tests were administered during the semester, namely, the mid-term and the final tests, both of which served to evaluate students' progress and to motivate them. Mid-term test also served to give students feed-back about their performance.

4.4.1. The Mid-term Test

The mid-term test was administered to gauge the treatment group students' performance after working on the first three Latin roots out of the ten selected to be covered throughout the semester. The 36 items in the test, half of which were assessed by means of matching-definition and the other half by word-completion

type questions, contained only these three roots and as many affixes as the selected Latinate English words contained. All the words and the word parts included in the test had been covered during the class work. Five prefixes and four suffixes were tested out of the word context as separate items in the matching definition section (see Appendix L) as to draw attention to the importance of affixes in word formation and as to urge students to attend to these word-parts as well. The mid-term test yielded an alpha coefficient value of .6410 with a mean scale of 25.84 (71.78% of the maximum possible mean value of 36).

Table 4.9 shows the descriptive data related to the mid-term test scores of the treatment group students and the following Figure 4.12 illustrates the distribution of their scores.

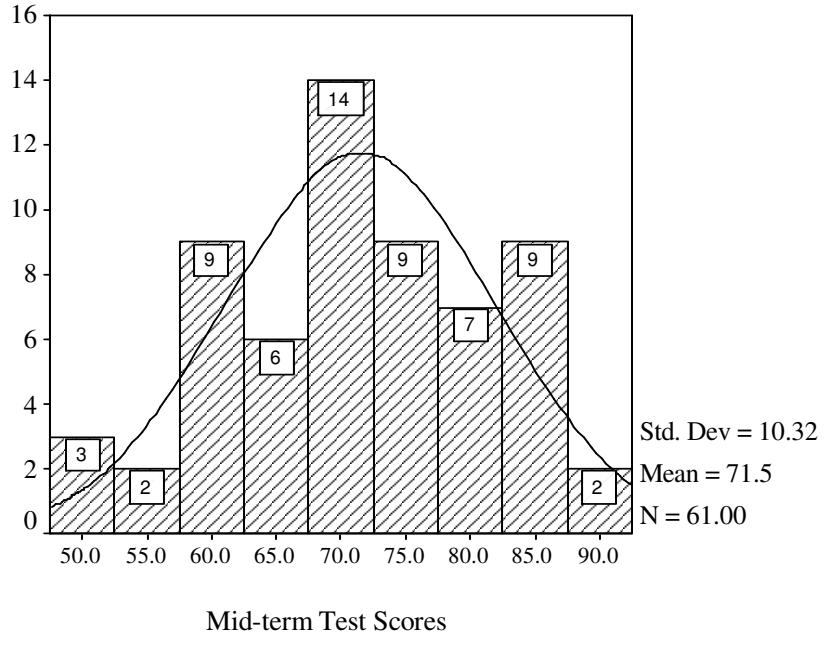
Table 4.9

Mid-term test score data of the treatment group

	N	Min	Max	$\bar{x}$	*SD*
Mid-term Test	61	50	91	71.49	10.324

Figure 4.12

Distribution of the treatment group mid-term test scores



Treatment group students ($N = 61$) received mid-term test scores between 50 and 91 ($\bar{x} = 71.5$; $SD = 10.32$). The frequency distribution of the test results reveal that the majority of students scored between 61 and 82 and thus, clustered around the mean score with a flatter distribution than the normal curve (Kurtosis -.591). Negatively skewed distribution of the mid-term scores (Skewness -.277, *Mdn* 72.0) as compared with the positively skewed distribution of the pre-test scores (Skewness .228; *Mdn* 47.0) indicates that the students learned during the course of instruction (Brown, 1997).

In order to find out the difference between the pre-test and the mid-term test scores the treatment group students received, a paired samples *t*-test was conducted. Table 4.10 presents the comparison of the scores obtained from both tests, and the following Figure 4.13 illustrates the difference between their scores.

Table 4.10

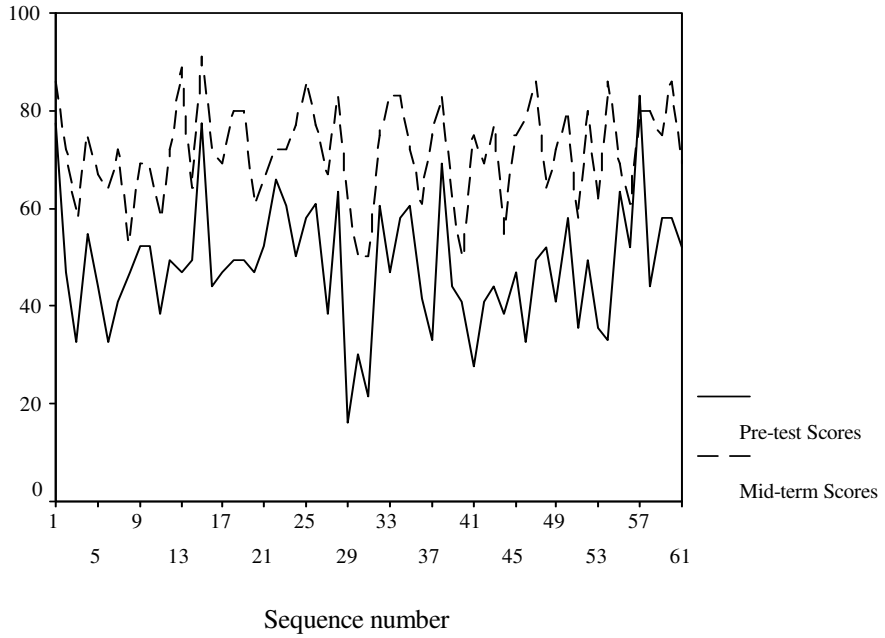
Pre-test and mid-term test score comparison of the treatment group

	N	$\bar{x}$	*SD*	*t*	*df*	*p*
Pre-test	61	48.32	12.953	-15.875	60	.000
Mid-term Test	61	71.49	10.324			

As Table 4.10 indicates, there is a statistically significant difference between the mean scores in favor of the mid-term test ($p < 001$). Since the roots and affixes forming the words in both tests were the same, it may be interpreted that the students recognize more words after receiving Latinate word-part instruction.

Figure 4.13

Score comparison of the treatment group pre-test and mid-term test scores



As Figure 4.13 illustrates, the general student performance was better after the word-part instruction. In only one case, that of the participant 57, the mid-term score slightly declined by three points, from 83 to 80.

4.4.2. The Final Test

The final test was administered to evaluate the treatment group students' performance after working on the ten selected roots covered throughout the semester. As in the mid-term test, there were 36 items in the final test, half of which were matching-definition and the other half word-completion type questions compiled to assess the selected Latinate English words formed by the roots and affixes studied during the course. The final test yielded an alpha coefficient value of .7995 with a mean scale of 29 (80.56% of the maximum possible mean value of 36), justifying the internal consistency of the final test ($\alpha > .7$).

Table 4.11 shows the descriptive data related to the final test scores of the treatment group students, and Figure 4.14 illustrates the distribution of their scores.

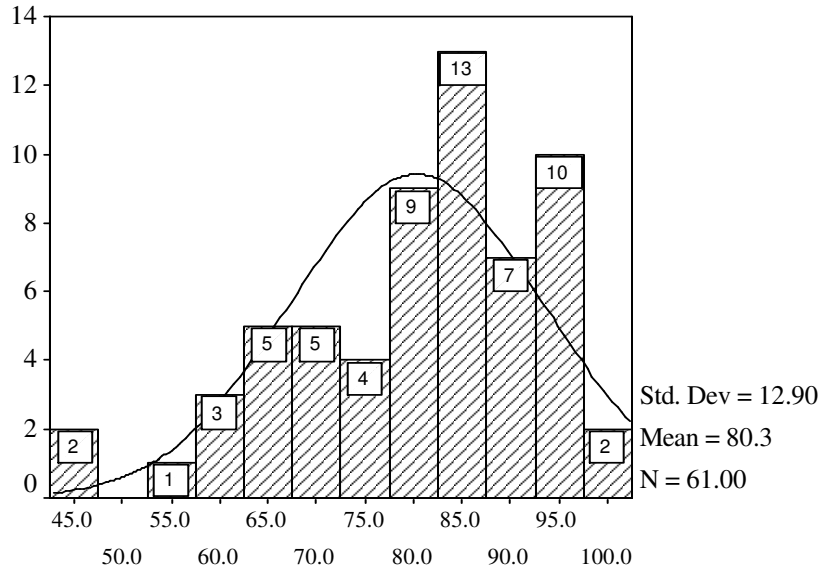
Table 4.11

Final test score data of the treatment group

	N	Min	Max	$\bar{x}$	*SD*
Final Test	61	44	100	80.30	12.904

Figure 4.14

Treatment group final test score distribution



Treatment group students ($N = 61$) received final test scores between 44 and 100 ($\bar{x} = 80.3$; $SD = 12.90$). The frequency distribution of the test results reveal that the majority of students scored between 67 and 93, clustering around the mean score (Kurtosis .257). As was the case with the mid-term test scores, the negatively skewed final test distribution (Skewness -.721; *Mdn* 83.0) indicates that, when compared with the positively skewed distribution of the pre-test scores (Skewness .228; *Mdn* 47.0), the students learned during the semester long word-part instruction

The comparison of the pre-test and final test scores is presented in Table 4.12 and Figure 4.15 as to illustrate the effect of word-part instruction for a longer period and with a wider range of Latinate roots.

Table 4.12

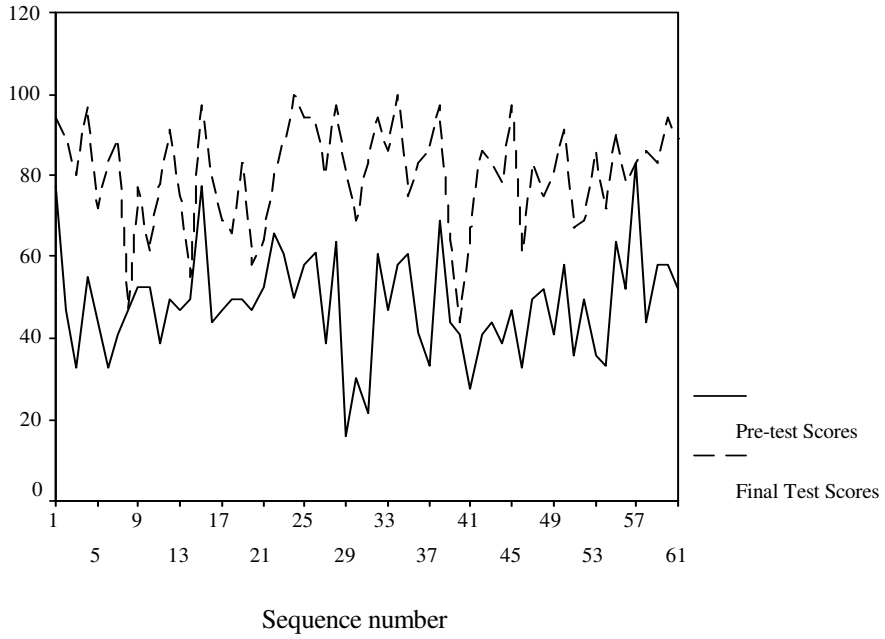
Pre-test and final test score comparison of the treatment group

	N	$\bar{x}$	*SD*	*t*	*df*	*p*
Pre-test	61	48.32	12.953	-17.304	60	.000
Final Test	61	80.30	12.904			

Table 4.12 indicates that there is a statistically significant difference between the mean scores in favor of the final test ($p < 001$).

Figure 4.15

Comparison of the treatment group pre-test and final test scores



As Figure 4.15 illustrates, the general student performance was even better after the full-semester Latinate word-part instruction. This indicates that longer periods of word-part instruction may afford improved performance in Latinate word knowledge acquisition.

4.4.3. Comparison of Mid-term and Final Tests

Table 4.13 shows the descriptive data related to the mid-term and final test scores of the treatment group students, and the following Figures 4.16 and 4.17 illustrate the distribution of their scores:

Table 4.13

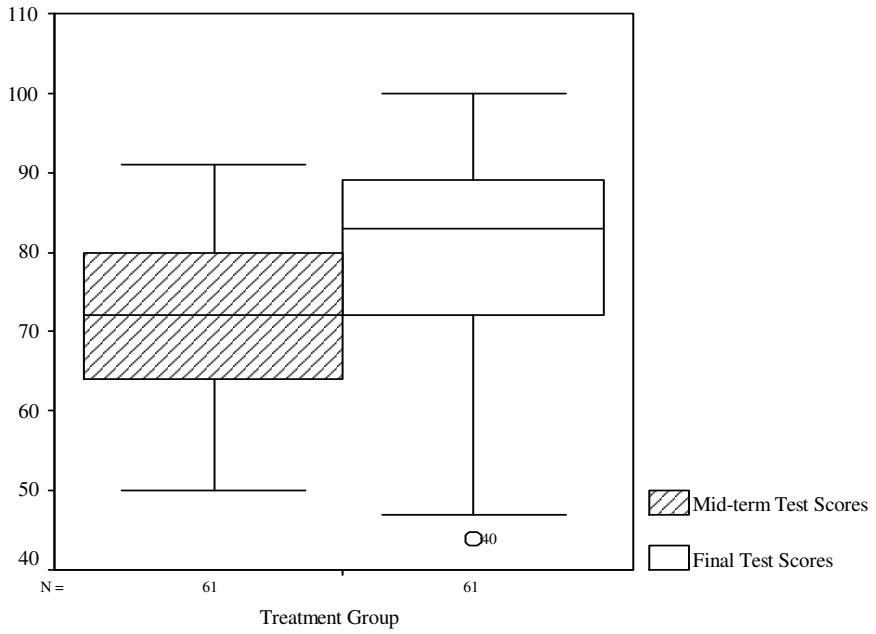
The final test score data of the treatment group

	N	Min	Max	$\bar{x}$	*SD*
Mid-term Test	61	50	91	71.49	10.324
Final Test	61	44	100	80.30	12.904

Figure 4.16 illustrates the ranges and the distributions of the mid-term and final test scores, whereas Figure 4.17 displays the comparison of student scores obtained from these tests.

Figure 4.16

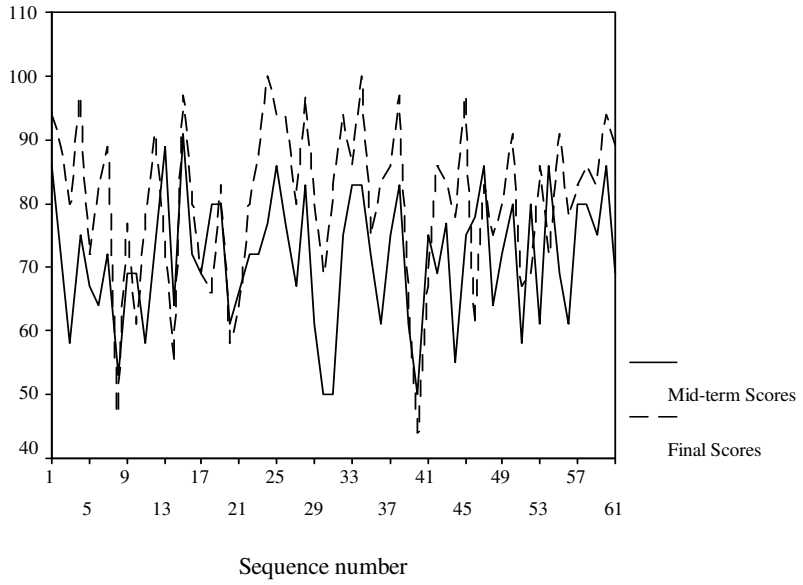
The distribution and range of mid-term and final test scores



As Figure 4.16 demonstrates, the overall performance of the treatment group students at the end of the semester exceeded that of the mid-term.

Figure 4.17

Comparison of the treatment group mid-term and final test scores



As Figure 4.17 illustrates, some students obtained lower scores in the final test than they did in the mid-term test. The individual test score figures reveal that the number of such cases was 13 (21.3% of the treatment group). The most significant decrease observed in the final test performance was that of the participant 46 (from 78 to 61), although this score still indicated a progress compared to his pre-test score of 33.

A paired-samples *t*-test was conducted to compare the mid-term and final test mean scores. Table 4.14 shows the progress students made at the end of the semester as compared with their performance at the end of the three-week long word-part instruction prior to the mid-term examination.

Table 4.14

Mid-term and final test score comparison of the treatment group

	N	$\bar{x}$	*SD*	*t*	*df*	*p*
Mid-term Test	61	71.49	10.324	-5.934	60	.000
Final Test	61	80.30	12.904			

Table 4.14 shows that there was a statistically significant difference between the mid-term and final test scores ($p < .001$).

4.5. THE POST-TEST

The post test was the identical with the pre-test and was administered at the end of the semester to both treatment and freshman control group students and also to senior class students as the second control group to find out whether the Latinate word-part instruction carried out during the semester had a significant effect on the treatment group's vocabulary knowledge as compared with those of the two control groups. The post-test reliability data yielded an alpha coefficient of .7721 (see Appendix K for details).

Table 4.15 shows the descriptive data related to the post-test scores of the treatment group students and the following Figure 4.18 illustrates the distribution of their scores.

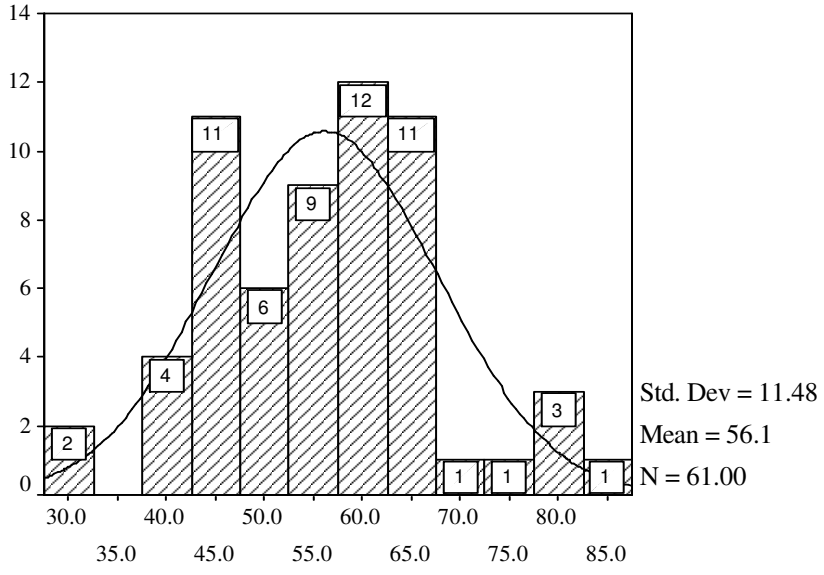
Table 4.15

Post-test score data of the treatment group

	N	Min	Max	$\bar{x}$	*SD*
Post-test	61	30	86	56.13	11.484

Figure 4.18

Post-test score distribution of the treatment group



Treatment group students (N = 61) obtained post-test scores between 30 and 86 ($\bar{x}$ = 56.1; SD = 11.48). The majority of students clustered around the mean score (Kurtosis .382).

Table 4.16 shows the descriptive data related to the post-test scores of the freshman control group students and the following Figure 4.19 illustrates the distribution of their scores.

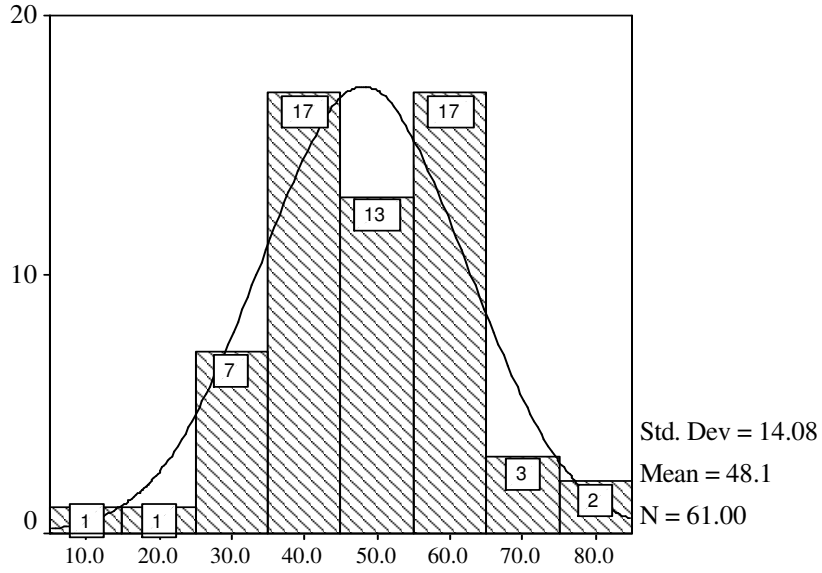
Table 4.16

Post-test score data of the freshman control group

	N	Min	Max	$\bar{x}$	*SD*
Post-test	61	5	81	48.08	14.075

Figure 4.19

Post-test score distribution of the freshman control group



Freshman control group students (N = 61) obtained post-test scores between 5 and 81 ($\bar{x}$ = 48.1; SD = 14.08). The majority of students clustered around the mean score (Kurtosis .577).

Table 4.17 shows the descriptive data related to the post-test scores of the senior control group students, and the following Figure 4.20 illustrates the distribution of their scores.

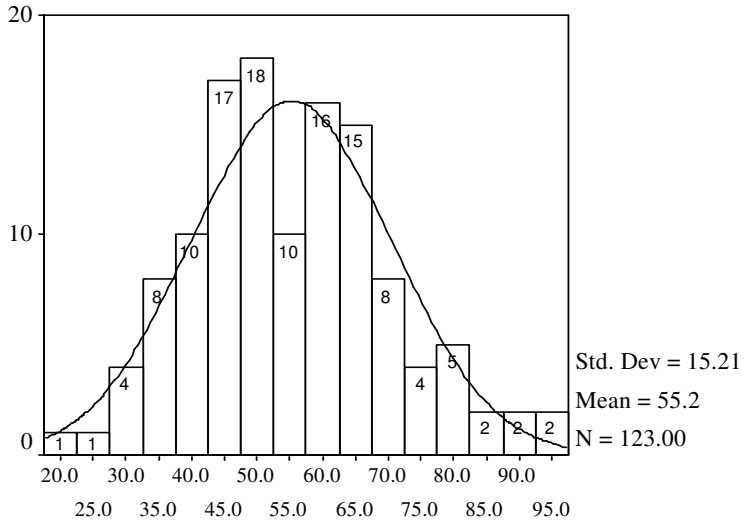
Table 4.17

Post-test score data of the senior control group

	N	Min	Max	$\bar{x}$	*SD*
Post-test	123	22	97	55.23	15.215

Figure 4.20

Post-test score distribution of the senior control group



Treatment group students (N = 123) obtained post-test scores between 22 and 97 ($\bar{x}$ = 55.2; SD = 15.21). The majority of students clustered around the mean score (Kurtosis -.029).

4.5.1. Comparison of the Post-test Scores

Post-test scores of all three groups, namely treatment, freshman control, and senior control, were compared with one another by means of separate independent samples *t*-tests as to find out the effect of the Latinate word-part instruction given to the treatment group during the semester.

Table 4.18 shows the descriptive data related to the post test scores of the treatment and freshman control group students, and the following Figures 4.21 and 4.22 illustrate the distribution of their scores.

Table 4.18

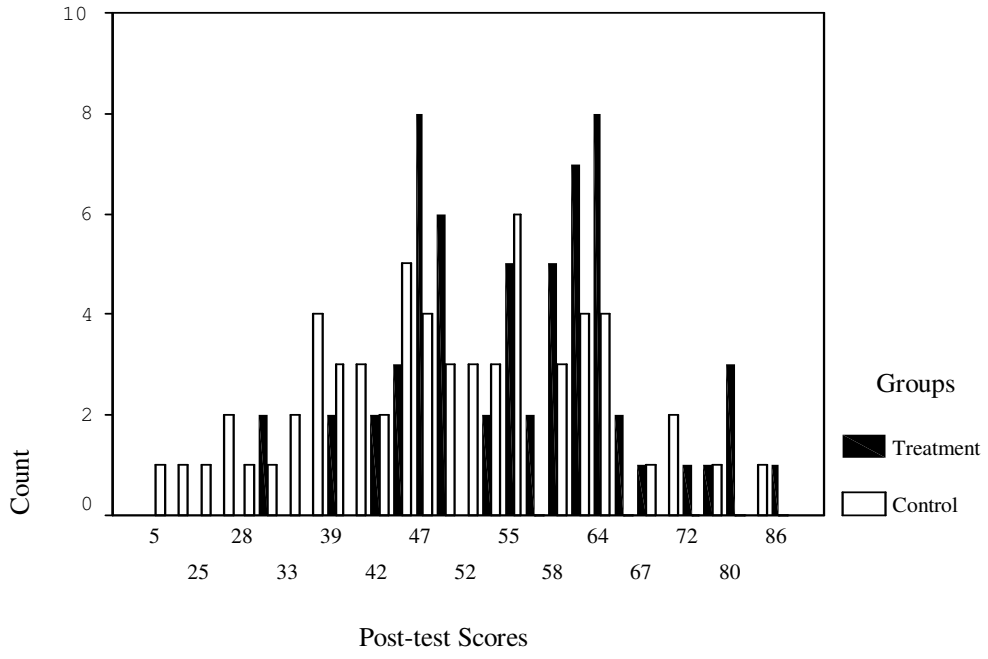
Post-test score data of the treatment and freshman control groups

	Groups	*N*	Min	Max	$\bar{x}$	*SD*
Post-test	Treatment	61	30	86	56.13	11.484
	Freshman Control	61	5	81	48.08	14.075

Figure 4.21 illustrates the ranges and the distributions of the post-test scores of the two groups whereas Figure 4.22 displays the comparison of student scores obtained from the post-test.

Figure 4.21

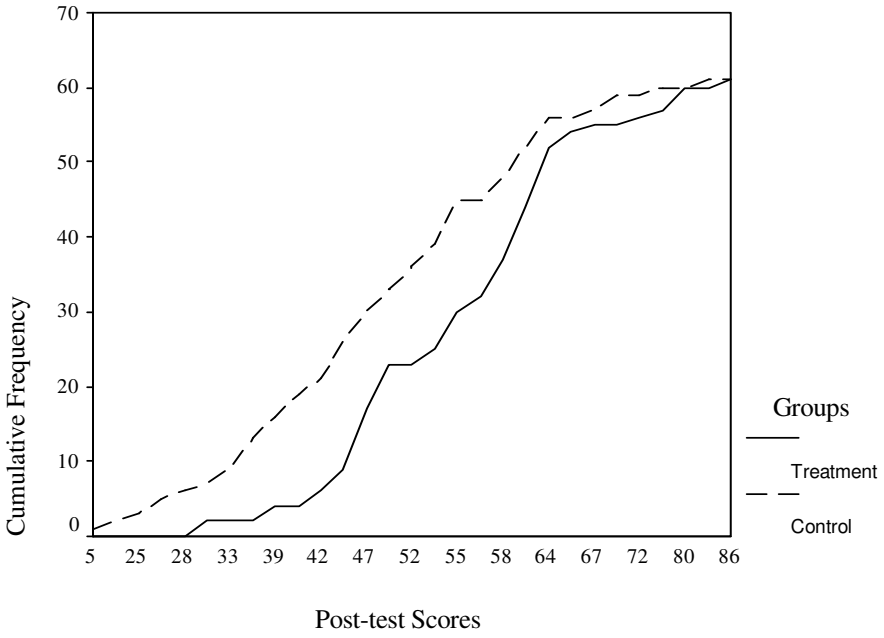
Post-test score comparison of the treatment and freshman control groups based on the number of cases



As Figure 4.21 illustrates, within the score range of 47-68, the treatment group participants mostly scored higher than the freshman control group members did.

Figure 4.22

Post-test score comparison of the treatment and freshman control groups based on cumulative frequencies



As Figure 4.22 demonstrates, the gap between the post-test scores of the treatment and the freshman control group participants are wider on the lower score levels and around the mean scores ($\bar{x}$ = 56.13 and 48.08 respectively).

Table 4.19

Post-test score comparison of the treatment and freshman control groups

	Groups	*N*	$\bar{x}$	*SD*	*t*	*df*	*p*
Post-test	Treatment	61	56.13	11.484	3.461	120	.001
	Freshman Control	61	48.08	14.075			

As the Table 4.19 indicates, there is a significant difference between the post-test mean scores of the treatment group and the freshman control group in favor of the former ($p < .01$). Compared with the pre-test mean scores given in Table 4.8, the post-test mean score of the treatment group increased by 16.16%, rising from 48.32 to 56.13, whereas that of the freshman control group increased only by 6.25%, from 45.25 to 48.08.

Table 4.20 shows the descriptive data related to the post test scores of the treatment and senior control group students, and the following Figures 4.23 and 4.24 illustrate the distribution of their scores.

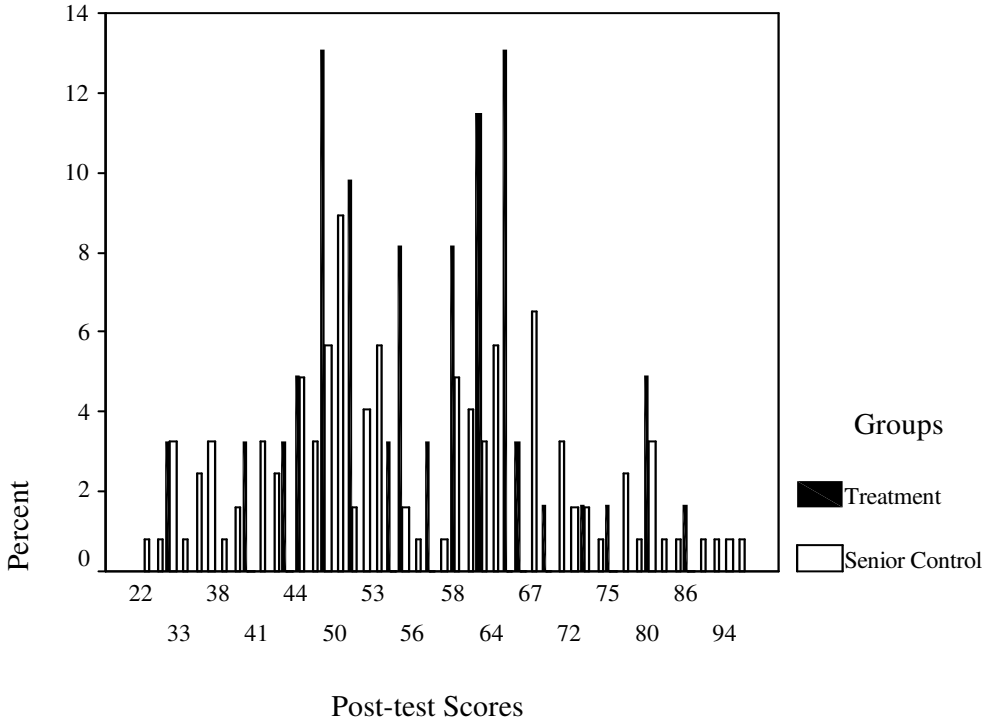
Table 4.20

Post-test score data of the treatment and senior control groups

	Groups	*N*	Min	Max	$\bar{x}$	*SD*
Post-test	Treatment	61	30	86	56.13	11.484
	Senior Control	123	22	97	55.23	15.215

Figure 4.23

Post-test score comparison of the treatment and senior control groups based on percentage of cases

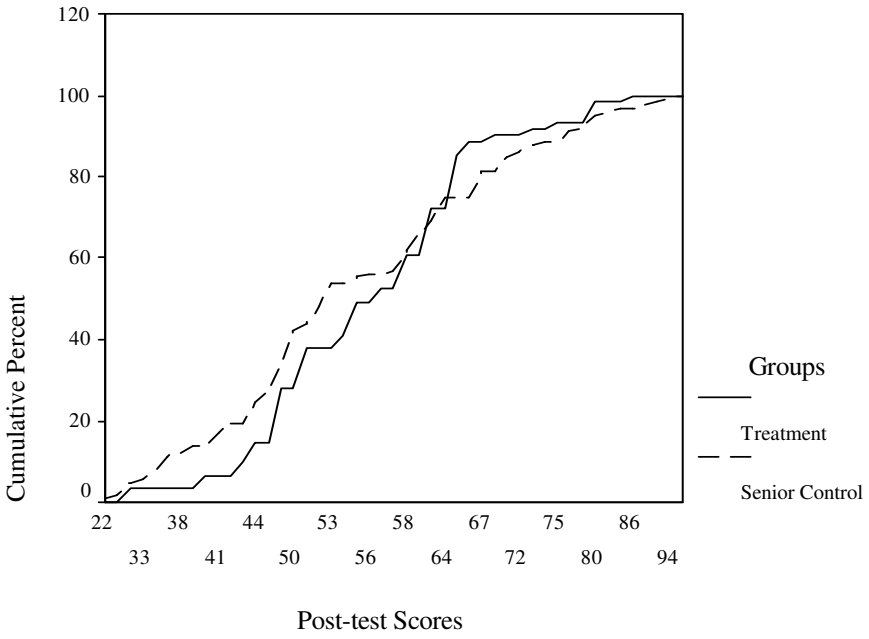


Since the number of students forming the senior control group was twice that of the treatment group, Figure 4.23 shows the test score differences in percentages. As the bar chart illustrates, in some score ranges the ratio of treatment group students is

higher than that of senior control group students. Figure 4.24 illustrates the tendency of mean score differences between these two groups.

Figure 4.24

Post-test score comparison of the treatment and senior control groups based on cumulative percentages



As Figure 4.24 demonstrates, senior control group students did not obtain significantly higher scores although they had attended academic courses for a period three years longer than the treatment group members had.

Table 4.21

Post-test score comparison of the treatment and senior control groups

	Groups	*N*	$\bar{x}$	*SD*	*t*	*df*	*p*
Post-test	Treatment	61	56.13	11.484	.408	182	.684
	Senior Control	123	55.23	15.215			

The post-test mean score of the treatment group is slightly higher than that of the senior control group, but the difference in the scores of the two groups is not statistically significant ($p > .05$).

It is worth pointing out the difference in the length of academic study in favor of senior students. Despite the three years' difference to their benefit, senior students still scored lower than the freshman students in the treatment group did.

Table 4.22 shows the descriptive data related to the post test scores of the freshman control and senior control group students, and the following Figures 4.25 and 4.26 illustrate the distribution of their scores.

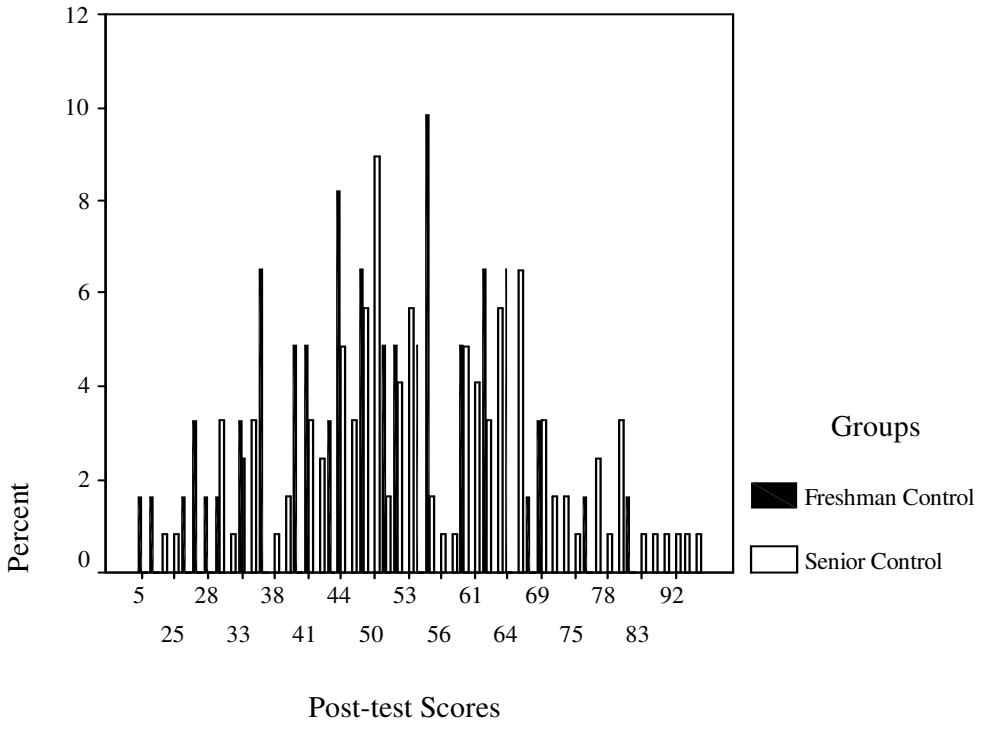
Table 4.22

Post-test score data of the freshman control and senior control groups

	Groups	*N*	Min	Max	$\bar{x}$	*SD*
Post-test	Freshman Control	61	5	81	48.08	14.075
	Senior Control	123	22	97	55.23	15.215

Figure 4.25

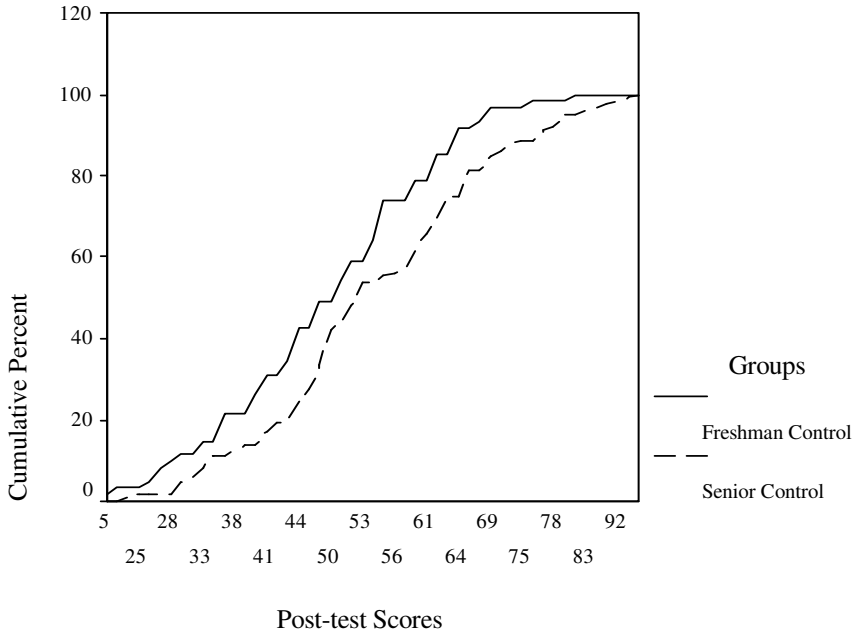
Post-test score comparison of the freshman control and senior control groups based on percentage of cases



As Figure 4.25 shows the ratio of freshman control group students in some of the lower score ranges are higher than that of senior control group, but the trend in the higher score ranges change in favor of the latter group.

Figure 4.26

Post-test score comparison of the freshman control and senior control groups based on cumulative percentages



As Table 4.23 demonstrates, senior control group students, who had attended academic courses for three years longer than the freshman control group members had, obtained significantly higher scores. The gap between the post-test scores of the two groups shows a steady trend at all levels.

Table 4.23

Post-test score comparison of the freshman control and senior control groups

	Groups	*N*	$\bar{X}$	*SD*	*t*	*df*	*p*
Post-test	Freshman Control	61	48.08	14.075	-3.075	182	.002
	Senior Control	123	55.23	15.215			

As Table 4.23 demonstrates, there is a significant difference between the post-test mean scores of the freshman control group and the senior control group in favor of

the latter ($p < .01$). This indicates that, in the case of the absence of Latinate word-part instruction, the longer the duration of academic study is, the higher the level of students' vocabulary knowledge may be.

4.5.2. Comparison of the Pre-test and Post-test Scores

The pre-test and the post-test scores were also compared as to observe the effect of Latinate word-part instruction on English vocabulary acquisition of the treatment group students in comparison with that of the freshman control group students who did not receive the same instruction.

Table 4.24 shows the descriptive data related to the pre-test and post-test scores of the treatment group participants:

Table 4.24

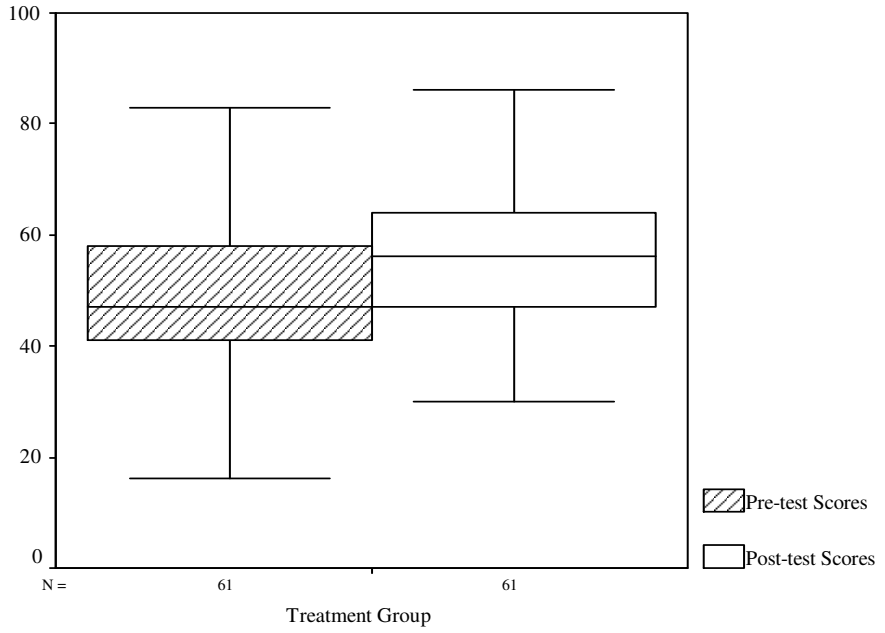
Pre-test and post-test score data of the treatment group

Group	Test	*N*	Min	Max	$\bar{x}$	*SD*
Treatment	Pre-test	61	16	83	48.32	12.953
	Post-test	61	30	86	56.13	11.484

Figure 4.27 displays the ranges and the distributions of pre- and post-test scores of the treatment group participants, and Figure 4.28 illustrates the comparison of the scores obtained from both tests.

Figure 4.27

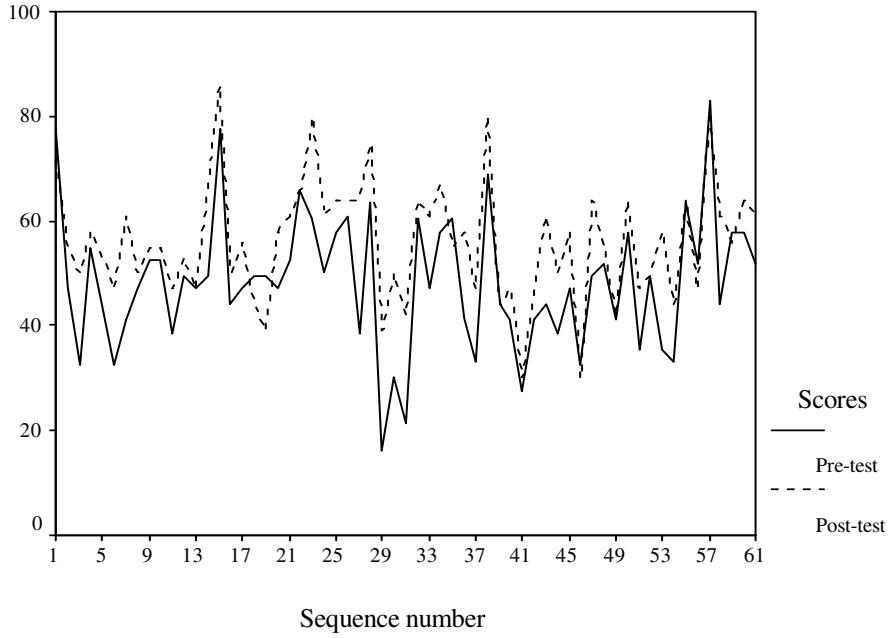
The distribution and range of pre- and post-test scores of the treatment group



As Figure 4.27 reveals, the range and the distribution of the post-test scores of the treatment group students improved as compared with those of their pre-test scores.

Figure 4.28

Pre- and post-test score comparison of the treatment group students



As Figure 4.28 illustrates, the post-test scores of the treatment group students were higher than their pre-test scores. There were eight exceptions (13.11%) who received lower scores from the post-test. For example, Participant #35 recorded a decrease of 6 points (from 61 to 55) and Participant #57 a decrease of 3 points (from 83 to 80), the former being the lowest decline and the latter the highest, except for Participant #19 who recorded a decrease of 11 points (from 50 to 39).

Table 4.25 reveals the results of the paired-samples *t*-test conducted as to compare the pre- and post-test scores of the treatment group.

Table 4.25

Pre-test and post-test score comparison of the treatment group

Group	Test	*N*	$\bar{x}$	*SD*	*t*	*df*	*p*
Treatment	Pre-test	61	48.32	12.953	-7.516	60	.000
	Post-test	61	56.13	11.484			

As Table 4.25 shows, there is a statistically significant difference between the pre- and post-test mean scores of the treatment group ($p < 001$).

Table 4.26 reveals the descriptive data related to the pre-test and post-test scores of the freshman control group participants, and the following Figure 4.29 displays the ranges and the distributions of their scores, whereas Figure 4.30 illustrates the comparison of the scores obtained from both tests.

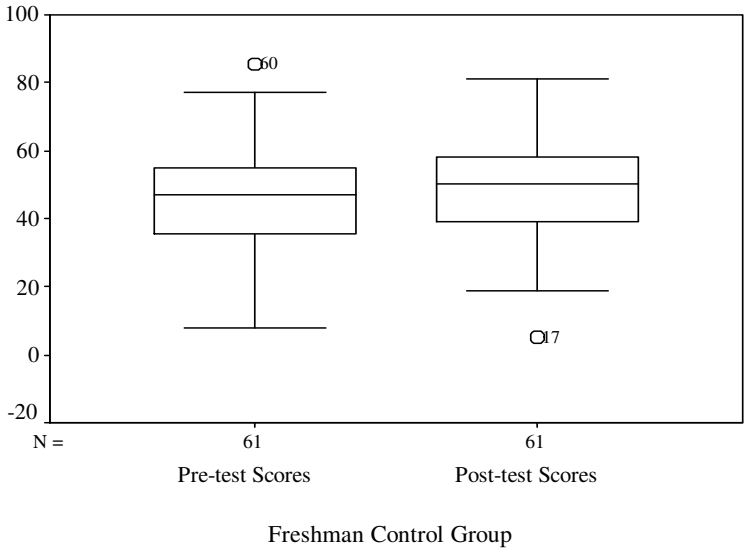
Table 4.26

Pre-test and post-test score data of the freshman control group

Group	Test	*N*	Min	Max	$\bar{x}$	*SD*
Freshman Control	Pre-test	61	8	86	45.25	14.166
	Post-test	61	5	81	48.08	14.075

Figure 4.29

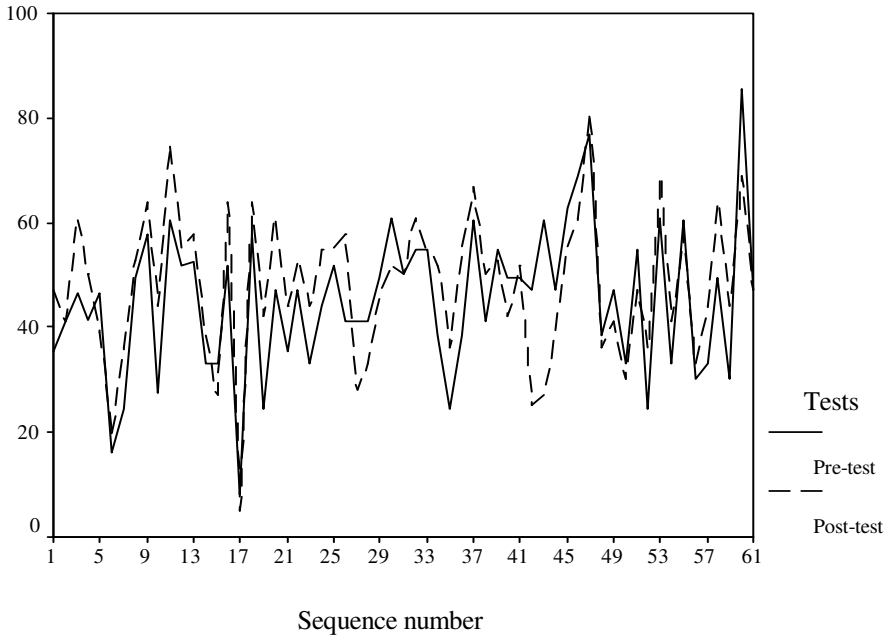
The distribution and range of pre- and post-test scores of the freshman control group



As Figure 4.29 displays, the range and the distribution of the post-test scores of the freshman control group students slightly improved as compared with that of their pre-test scores. Participant #60 and #17 scored out of range, 86 and 5 points respectively.

Figure 4.30

Pre- and post-test score comparison of the freshman control group



As Figure 4.30 illustrates, the post-test scores of the freshman control group students are more or less parallel to their pre-test scores, with the exception of considerable increases in the post-test scores of some students, such as those of Participant #3 and Participant #10, improving 14 and 16 points respectively, and significant decreases in some others, such as those of Participant #27 and Participant #43, declining 13 and 34 points respectively.

Table 4.27 shows the results of the paired-samples *t*-test conducted as to compare the pre- and post-test scores of the freshman control group:

Table 4.27

Pre-test and post-test score comparison of the freshman control group

Group	Test	*N*	$\bar{x}$	*SD*	*t*	*df*	*p*
Freshman Control	Pre-test	61	45.25	14.166	-2.172	60	.034
	Post-test	61	48.08	14.075			

Table 4.27 indicates that there is a statistically significant difference between the pre- and post-test mean scores of the freshman control group students ($p < 05$). However, the increase in the post-test mean score of the treatment group is more significant ($p = .000$) than that of the freshman control group ($p = .034$).

4.6. INTERVIEWS

Sixteen treatment group students (26.2%) participated, on a voluntary basis, in one-on-one interview sessions with the researcher at the end of the term. Responses to the five open-ended questions addressed during the interview as to elicit students' personal views are summarized below.

Question 1

Do you find what you learned in this course useful? If yes, in what ways it was useful?

Seven interviewees responded that they "definitely / highly benefited from the instruction" and that they "found the system beneficial / most beneficial" in respect of its usefulness. Five interviewees commented that they "liked it very much" and

that they "benefited from it" whereas four interviewees stated that "it was difficult at first, but got better as learning progressed." All sixteen participants' responses considered together, *usefulness* maybe regarded as a commonly accepted beneficial aspect of the word-part instruction.

Question 2

Did the things you learned in the course contribute to other courses you took? How?

Eleven interviewees stated that it "definitely / naturally contributed" and that they "experienced it" specifically in reading, speaking, writing, and / or grammar. Two interviewees admitted that they "did not pay attention to" its effect on other courses but commented that they "thought of word-parts" when they encountered unknown words. One interviewee said that it was "too early" and that she expected positive effects "in the future," though she indicated that she had already become conscious of the affixes and admitted that "they looked familiar" to her. Two interviewees did not particularly comment on the issue. As a whole, responses show that *contribution* of the instruction to other courses in the curriculum is a fact generally agreed upon.

Question 3

Do you think your word knowledge has expanded?

Seven interviewees commented that it has "definitely / naturally" expanded and that the reason was their "learning and retaining the words easily." Seven of the remaining interviewees affirmed its expansion and expressed that they found the word meanings "easy to retain." One interviewee admitted that it was "hard at the beginning," and one stated that "background knowledge was necessary" and that she "felt the lack of it." Responses indicate that the majority of the participants experienced an *expansion* in their word knowledge after the word-part instruction they received.

Question 4

Do you think what you learned in the course will be beneficial for you in future? How?

Nine interviewees expressed that they "definitely / truly / surely" foresaw future benefits because they were "using reasoning, not rote memorization." Furthermore, some commented that "teachers must know words" and that they "already decided to gain progress through self-study" since the system made it "easier to learn and retain words." Five interviewees also expected future benefits provided that "the instruction lasted longer" and that "they personally persevered" in studying further. Two interviewees did not comment on the issue. Responses show that there is a general agreement among the participants concerning the *expected benefits* from learning vocabulary through Latinate word parts.

Question 5

Would you consider employing a similar approach in teaching vocabulary to your prospective students?

Eight interviewees stated that they would "definitely / naturally" utilize the system in teaching words because it required "reasoning, not rote memorization" and because it "taught words very well" besides "making retention easier." Furthermore, some commented that it would "make their students like learning language." Four interviewees said they also planned to use the system provided that they, as future teachers, "learn it well." Some of them also mentioned that the students "would enjoy the system, too." Two interviewees said they would employ the system, but it would "depend on the students' ages and their grade levels." Two interviewees did not comment on the issue. Responses indicate that, as prospective language teachers, the participants in general agree upon *teaching the system* to their students in the future.

Table 4.28 illustrates the levels of contentment the interviewees voiced in response to each question, namely, the *usefulness* of teaching word parts, its *contribution* to other courses in the curriculum, its effect on vocabulary *expansion*, the future *benefits* expected from it, and the possibility of *teaching* it to students of English.

Table 4.28

Interviewee contentment in the word-part instruction

Interviewee	Total	Ques. #1 Usefulness	Ques. #2 Contribution	Ques. #3 Expansion	Ques. #4 Benefit	Ques. #5 Teaching
5		++	++	++	++	++
2		+	++	++	++	++
3		++	++	+	++	++
10		+	++	++	++	+
13	5	++	++	++	+	++
1		++	+	++	++	+ / -
7		++	++	+ / -	++	++
8		+ / -	+	+	+	++
9		++	++	+	++	+ / -
14	5	+	++	+ / -	++	++
6		+	...	++	+	++
16	2	++	...	+	+	+
4		+ / -	++	+	+	...
11		+ / -	++	+	++	...
12		+	+ / -	++	...	+
15	4	+ / -	++	+	...	+

Note. Level of support: ++ Very Strong; + Strong; +/- Reserved; … No comment.

In summary, the responses elicited show that, of the sixteen interviewees,

- five supported *all five factors* either 'very strongly' or 'strongly';
- seven supported *four factors*, again 'very strongly' or 'strongly,' of whom, five voiced a 'reserved' support on the remaining factor while two did not give any comments on it;
- four 'very strongly' or 'strongly' supported *three factors*, 'reservedly' supported a fourth one, and did not comment on the fifth.

On the whole, the level of student contentment with regard to the advantages of and expectations from the word-part instruction was high. Table 4.29, arranged according to the strength of support voiced by the interviewees in response to each question, displays the above analysis from an alternative point of view. In cases of 'no comment,' the missing information was due to either the researcher's not addressing the student on the issue in the spontaneous flow of the interview, or the interviewee's not giving a specific response to the question.

Table 4.29

Interviewee contentment levels according to factors questioned

Support	Very Strongly		Strongly		Reservedly		No Response		Total	
Question #	f	%	f	%	f	%	f	%	f	%
1- Usefulness	7		5		4		-		16	
2- Contribution	11		2		1		2		16	
3- Expansion	7		7		2		-		16	
4- Benefit	9		5		-		2		16	
5- Teaching	8		4		2		2		16	
Total %		52.5		28.75		11.25		7.5		100

Responses on the basis of questioned factors can be summarized as follows:

- 81.25% of the interviewees supported *all five factors* either 'very strongly' (52.5%) or 'strongly' (28.75%).
- *Contribution* enjoyed the highest proportion (11 interviewees) of 'very strong' support, followed by *Benefit* (9), *Teaching* (8), and *Expansion* and *Usefulness* (7 each).
- *Benefit* and *Expansion* received the widest support (each by 14 interviewees; 87.5%).
- *Usuefulness* was 'reservedly' supported by the greatest number of interviewees (four of the 16 interviewees).
- There was no 'reserved' support voiced for future *benefits* expected from the word-part instruction.
- Six students who did not comment did so only on one factor, and all were distributed evenly among *Contribution*, *Benefit*, and *Teaching*.

In other words, interviewees were cognizant of the short-term effects (*Contribution* and *Expansion*), expected long-term gains (*Expansion* & *Benefit*), foresaw chances of wider usage (*Benefit* & *Teaching*), and found vocabulary learning through word-parts helpful (*Usefulness*) but expressed concern about the difficulty of its application especially at the beginning and pointed out the need for studying better and further.

The following comments spontaneously made by the participants during the interview sessions are related to vocabulary learning and study habits of the students and their points of view on the instruction material, style, and duration:

- Eight interviewees stated that they "never had seen such a system of vocabulary learning" and that they "never had received any instruction on this system." Only one interviewee mentioned that at high school she once had an English teacher who would draw attention to some word origins as to make the vocabulary items easier to learn but that it was related to the individual words being taught and not to word-part instruction.

- Ten interviewees expressed that, to them, "learning vocabulary meant rote memorizing long lists of words and then forgetting most after a while." This fact was considered "a major problem for language learners."

- Eleven interviewees articulated their fondness in the teaching style and the materials used during the course. They emphasized that "utilizing visual presentation by means of software and projection was effective" and that "gestures and mimicry in conveying meanings helped comprehension and retention." They also pointed out that employing etymology, mythology, anecdotes, and mnemonics was "of great help not only for learning and retaining word meanings, but also for making the learning process more enjoyable." One interviewee stated that, in this way "the word being taught assumed 'a smile of its own' and thus, contributed to its recall."

- As for the duration of the course and the continuity of instruction, seven students specifically laid stress upon the limited time allotted to the course by indicating that "one hour a week was inadequate for learning the word-part system" and that "the course should continue also in the second term." They emphasized "the importance of repetition and practice" as well, and one of the interviewees stated that "lack of time impeded efficiency by impelling the instructor to teach too many words in a restricted time."

Interviewee responses and comments analyzed above are widely in the affirmative. In evaluating the interview results, student prejudice should not be considered a matter of concern since the interviews were conducted on a voluntary basis, the post-test and final examination scores were not revealed prior to the interview sessions, and the interviewee scores indicated a balanced distribution. Therefore, the positive interviewee opinions on Latinate word-part instruction are not necessarily influenced by the participants' feeling of accomplishment.

CHAPTER V
CONCLUSIONS AND IMPLICATIONS

5.1. CONCLUSIONS

This experimental study signifies that Latinate word-part instruction has a positive effect on the level of English word-knowledge of university students pursuing their academic study in a foreign language environment. Results obtained from the experiment reveal that explicit word-part teaching is an effective tool for the acquisition of advanced level word knowledge and that, even for a limited period of instruction, students show progress in learning low-frequency words and academic vocabulary. The statistically significant effect of the eleven-week instruction covering only a limited number of Latinate word-parts taught for only one class-hour a week indicates that a program including a wider range of roots and affixes and continuing for a longer period of time may benefit the learners on a larger scale.

Furthermore, the participants of this study were the native speakers of Turkish, a language which does not belong to the Indo-European family. This was deemed a disadvantage in learning English vocabulary since the learners would not have the benefit of linking word-part meanings to those in their mother tongue. As to rule out the probability of participants' reaching meanings through reference, words that were adopted into Turkish from Indo-European languages were eliminated while compiling the tests. The test results, therefore, reflect the vocabulary knowledge acquired through Latinate word-part instruction, and not through similarities in morphological elements.

Two of the three research questions that the present study sought to answer were derived from the hypothesis based on the aforementioned requisites, namely, that the participants were undergraduate students learning English as a foreign language and that their mother tongues were not of Indo-European origin. Both conditions present and the results statistically significant in the affirmative, the hypothesis is deemed confirmed. In other words, the data obtained show that teaching Latinate word parts is an effective tool for enlarging English vocabulary and that it helps learners to acquire Latinate vocabulary in advance. As for the third research question, student

satisfaction in the instruction program shows that explicit teaching of Latinate word parts is not only a beneficial, but also a welcome instrument for the university freshman class English language learners in acquiring the low-frequency words and academic vocabulary.

5.1.1. Research Question 1

The first research question was: "What is the effect of teaching Latinate word parts on enlarging English vocabulary knowledge of prospective English language teachers in their freshman year of undergraduate study?"

Post-test results show that the treatment group participants who received word-part instruction performed better than their control group counterparts, and the effect of the treatment was statistically significant. This indicates that explicitly teaching Latinate word parts has a positive effect on the expansion of English vocabulary knowledge of the language learners pursuing their undergraduate study.

5.1.2. Research Question 2

The second research question was: "Is there any difference between the English language vocabulary knowledge of the undergraduate freshmen students who received Latinate word-part instruction during the first semester of their study at the department of teacher education and that of senior undergraduate students at the end of their seventh semester at the same department?"

Test scores obtained by the treatment-group participants were higher than those of the senior control-group students although the difference was not statistically significant. This shows that freshmen students may close the gap in the level of their word knowledge by learning Latinate word parts and even surpass that of the seniors despite the three years' disadvantage they have in respect of the length of academic study.

5.1.3. Research Question 3

The third research question was: "What is the opinion of the students about the instruction they received in learning vocabulary through Latinate word parts?"

Of the 16 treatment group participants interviewed, 81.25% expressed unreserved contentment with the treatment in response to the five open-ended questions asked by the researcher. Since the distribution of the post test scores obtained by the interviewees includes those of both high and low achievers, it is concluded that the majority of students were satisfied with the Latinate word-part instruction they received regardless of their degree of success.

5.2. DISCUSSION OF THE FINDINGS

Tschirner (2004) conducted an experimental study with a group of first semester students of English language and literature at a university in Germany and found out that, without focusing on vocabulary and vocabulary learning strategies, English language learners do not acquire the necessary word knowledge even after many years of language study prior to tertiary education. Of the participants he studied, 87% had eight or more years of English language instruction in high school, and 70% of them also had intensive language training. Despite the long duration of instruction, the scores obtained by the participants from the standardized word frequency levels tests were found disappointingly low considering that only two percent passed the productive level of the suggested 3,000 word-list.

Findings of the present study conducted with the university students in Turkey correspond to those of Tschiner's (2004) since the majority of freshmen participants (69.7%) had received English language instruction during high-school for five years or longer, but the scores they obtained from the pre-test showed that their level of word knowledge required for tertiary study was low ($\bar{x}$ = 48.32 and 45.25 for the treatment and control groups of the freshman class respectively).

Bellomo (2005, 2009), in the study he carried out with college preparatory reading class students at a tertiary school in the United States, also points to this fact and mentions that both native English speakers and foreign students lack vocabulary knowledge level necessary for higher education. His findings indicate that participants recorded significant progress following explicit instruction in Latinate word parts and vocabulary. As the study signifies, learning and retention of content words encountered in academic texts are thus made easy.

Another study carried out by Eğecioğlu (1996) with the junior class students of English language department at a public university in Turkey also shows that teaching words parts to language learners is an effective tool for learning vocabulary. Integrating a semester-long word-part instruction into the specially designed reading-writing course given three hours a week, she found out that, if the learners knew the Greco-Latin word parts, they not only remembered the words and terms better, but also guessed the word meanings more accurately just by knowing these parts.

The present study also indicates that Latinate word-part instruction has a positive effect on vocabulary acquisition. The experiment was carried out within the limits of a semester that permitted eleven weeks for instruction, and the time allotted to teaching word parts was only one class-hour per week. Despite the fact that the number of Latinate roots and affixes taught was restricted due to time limitation, the treatment helped the participants decipher the meanings of the words that were not covered in the instruction program. Scores obtained from the progress tests, namely mid-term and final tests, as well as from the main study post-test demonstrate that the treatment group participants benefited remarkably from the instruction. Comparison of results within the treatment group and also with those of the control groups show that the effect of teaching Latinate word parts was statistically significant. These findings support those of Bellomo (2005) and Eğecioğlu (1996) insofar as the benefit of teaching Latinate word parts is concerned although instruction given and the scope of words and word parts covered in the present study differs considerably.

The findings of the qualitative aspect of the present study support the results of the quantitative analyses. Opinions imparted by the interviewees indicate that the instruction was found effective by the great majority of these students irrespective of their test scores. The questions were related to five specific aspects of the instruction, namely, the usefulness of learning word-parts, its contribution to other courses studied, its effect on vocabulary expansion, the benefits expected from it in the future, and the possibility of utilizing the system in teaching vocabulary to prospective students. The majority of interviewees were in favor of learning vocabulary through Latinate word parts.

Another aspect of the present study is that it compares the progress freshmen students made with that of seniors of the same department at the same tertiary school. The significance of this comparison lies in the fact that the differences of opinion in language teaching methods advocated by the proponents and also espoused in the field of practice was, as Tschirner (2004, p. 38) voices, "detrimental to the study of vocabulary," and thus, learners were largely left to rely mostly on their own skills in acquiring word knowledge. The comparison made in the present study challenges the assumption that the duration in academic study is an advantage in gaining vocabulary knowledge as a result of attending regular academic courses in English.

The score comparison analyses conducted reveal that Latinate word-part instruction is beneficial even if it is carried out for a short time period and that it contributes more to vocabulary acquisition than attending academic courses only. Benefiting from the semester-long word-part instruction, the treatment group students closed the gap with a higher mean score, although the difference was not statistically significant.

5.3. IMPLICATIONS FOR PRACTICE

English language learners whose mother tongues are not of Indo-European origin face a great difficulty in memorizing, retaining, and recalling the vast number of Latinate English words. The difficulty partly emanates from the lack of familiarity with the basic morphological units Indo-European languages share. Having no background knowledge of these building blocks, in other words, roots and affixes, to form links between the meanings of English words and the Latinate units they contain, the learners are at a disadvantage in vocabulary acquisition.

Furthermore, if they are foreign language learners and, thus, do not have the opportunity to hear and speak English often enough because it is not the language of communication in their environments, the learners are compelled to depend primarily on their memory skills. Moreover, a third factor may interfere, making the learning process even harder: if the learners are under pressure of time and performance concerns, as in the case of the students pursuing their tertiary education, they are even further constrained because of having to not only learn great number of words

in a short period, but also recall them readily for academic success. Under such circumstances, explicitly teaching Latinate word parts to English language learners as a mnemonic device is essentially a useful tool for helping them overcome the difficulty of learning the enormous number of words English possesses.

Vocabulary teaching through Latinate word parts should thus have continuity and greater emphasis in the curriculum throughout the undergraduate years. Furthermore, Latinate English words which form the great majority of the low-frequency words and academic vocabulary should be taught on a wider scale as to help university students reach a higher comprehension level necessary for academic reading and writing. This is especially important in a foreign language environment, and doing so would render vocabulary acquisition through Latinate word-parts a life-time tool for the learners.

5.4. SUGGESTIONS FOR FURTHER RESEARCH

The experiment carried out in this study was aimed to contribute to vocabulary acquisition research by exploring the effect of teaching English words through Latinate word-parts. Other researchers in the field may find it practicable to extend the scope of the study by increasing the number of morphological units taught, by prolonging the length of time allotted to teaching them, and by extending the duration of program to find out the effects of instruction given on a larger scale and for a longer period of time. Further research may also be conducted in different settings with participants other than prospective English language teachers. Moreover, experiments with foreign language learners other than the native speakers of Turkish as well as with the learners of English as a second language and native speakers of English may be of interest to the researchers in the field.

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Öğrencinin adı, soyadı **Numarası**

Kişisel bilgiler

1.	**Doğum yeri –*Türkiye değilse, ülke adı:*_____**	İlçe		İl		
2.	**Doğum tarihi *(gün / ay / yıl):*** **_____ / _____ / *19*____**	**3.**	**Cinsiyeti:**	Erkek	Kadın	
				○	○	
4.	**Anadili** ***('Diğer' ise, yanda belirtiniz.)***	Türkçe	Diğer			
		○	○			
5.	**Mezun oldugu lise türü –*'diğer' ise:*** _____	Düz	Özel	Anadolu	Öğretmen	Diğer
		○	○	○	○	○
6.	**Okulun adı:**	İlçesi		İli		
7.	**Üniversite öncesi İngilizce eğitim süresi** ***(4'den az veya 8'den fazla ise: _____ yıl)***	4 yıl	5 yıl	6 yıl	7 yıl	8 yıl
		○	○	○	○	○
8.	**Eğitim dilinin İngilizce olduğu yabancı bir ülkede okudum** ***(bir yıldan fazla ise: _____ yıl)***	Hiç	Birkaç hafta	Bir dönem	Yarım yıl	Bir yıl
		○	○	○	○	○
9.	**Başka yabancı dil(ler) biliyorum –*yanda belirtilenlerden farklı ise:*** _____	Hiçbiri	Alman-ca	Fran-sızca	İtalyan-ca	İspan-yolca
		○	○	○	○	○

İngilize kelimeleri öğrenmek için nasıl çalışırsınız?

Her soru için <u>tek</u> bir cevap işaretleyiniz.		**Hiç**	**Ara sıra**	**Sık sık**	**Her zaman**
1.	**Kelimenin anlamını okuduğum metnin üzerine yazarım**	○	○	○	○
2.	**Kelime listesi yaparak çalışırım**	○	○	○	○
3.	**Kelime kartları ile çalışırım**	○	○	○	○
4.	**Anlamı metinden çıkarırım**	○	○	○	○
5.	**Kelime kökenlerini irdelerim**	○	○	○	○
7.	**Kelimeye sözlükten bakarım**	○	○	○	○
8.	**Anlamını bilen birine sorarım**	○	○	○	○

Lütfen kişisel bilgilerle ilgili bölümü eksiksiz tamamladığınızı kontrol ettikten sonra kelime testlerine geçiniz.

English Translation of the Questionnaire **Appendix B**

Student Name and Last Name **Student ID#**

Personal Data

1.	**Place of birth –*if not Turkey, country :*_____**	Town		City		
2.	**Date of birth *(day / mo / year):*** _____ **/** _____ **/ *19*____**	**3.**	**Gender:**	Male	Female	
				○	○	
4.	**Native language** ***(if 'other' indicate on the right.)***	Turkish	Other			
		○	○			
5.	**Type of high school graduated –*if 'other':*** _____	General	Private	Anatolia	Teacher	Other
		○	○	○	○	○
6.	**Name of the high school:**	Town		City		
7.	**English language study before tertiary school** ***(if greater than 4 or less than 8:*** _____ ***years)***	4 years	5 years	6 years	7 years	8 years
		○	○	○	○	○
8.	**Studied in a country where English is the language of communication** ***(if more than a year:*** _____ ***years)***	Never	A few weeks	One semester	Half a year	One year
		○	○	○	○	○
9.	**I know other language(s) –*if different from the indicted on the right:*** _____	None	German	French	Italian	Spanish
		○	○	○	○	○

How do you study to learn words in English?

Mark <u>only</u> one choice for each statement		**Never**	**Occa-sionally**	**Fre-quently**	**Always**
1.	**I write word meanings on the texts I read**	○	○	○	○
2.	**I study with word lists**	○	○	○	○
3.	**I study with flash-cards**	○	○	○	○
4.	**I guess from the context**	○	○	○	○
5.	**I analyze the word-parts**	○	○	○	○
7.	**I look up the word in the dictionary**	○	○	○	○
8.	**I ask someone who knows the meaning**	○	○	○	○

Please proceed to the vocabulary tests after you make sure you have completed all the items on personal information.

Name, Lastname *Student ID #*

Choose the correct words to match the definitions on the right. Write the number of that word next to its meaning.

	1	debate	
	2	exposure	____ continuing narrative
I	3	integration	____ power of remembering
	4	retention	____ joining something into a whole
	5	sequel	
	6	vehicle	
	1	apparatus	
	2	compliment	____ the highest point
II	3	lure	____ expression of admiration
	4	plank	____ an instrument for a particular purpose
	5	summit	
	6	zeal	
	1	deny	
	2	exile	____ incite to action
III	3	launch	____ bring back to health
	4	mediate	____ separate a person from his country
	5	provoke	
	6	revive	
	1	coincide	
	2	efface	____ withdraw modestly
IV	3	heave	____ feel angry about something
	4	obscure	____ exist everywhere or generally
	5	prevail	
	6	resent	
	1	analogous	
	2	equivalent	____ corresponding
V	3	explicit	____ happening after
	4	predominant	____ having power, authority, or influence
	5	reluctant	
	6	subsequent	
	1	abstract	
	2	adjacent	____ additional
VI	3	controversial	____ far beneath the surface
	4	phenomenal	____ just before, after, or facing
	5	profound	
	6	supplementary	

Complete the underlined words.

1. We asked her permission, and she cons_____.
2. The mind rej_____ painful memories.
3. She was very restless and decided to take a sed_____ to calm down.
4. The dictator demanded absolute comp_____ with orders.
5. The audience was amazed by the spec_____ fireworks.
6. Exhausted after a hard run, he was drained of energy and vit_____.
7. They insp_____ all products before sending them out to stores.
8. Since we don't have time to finish discussing the remaining items on the agenda, I propose that we cover them in the next ses_____.
9. A songsmith is a person whose occupation is writing songs, and a wordsmith is a journalist or novelist whose voc_____ is writing.
10. He finally att_____ a position of power in the company.
11. Although we suspected strongly that she was guilty, we had no tan_____ grounds to prove her crime.
12. Day-to-day people are concerned with immediate needs or desires without prep_____ for the future.
13. The roar of the engines sub_____ as the rocket vanished into the clouds.
14. You do not need to come back to learn the results; we'll con_____ you by mail or telephone.
15. Constitution is the system of fund_____ principles according to which a nation is governed.
16. It's difficult to ass_____ a person's true knowledge by one or two tests.
17. The company profits more from dom_____ sales than from foreign trade.
18. We must check his report closely; he is quite famous for presenting super_____ work that lacks depth.

100-point Scale Score Conversion Table **Appendix D**

The below 100-point scale chart was used in calculating the student test scores:

Test Score Conversion Scale	
# of Correct Items	Equivalent Score
18	100
17	94
16	88
15	83
14	77
13	72
12	66
11	61
10	55
9	50
8	44
7	38
6	33
5	27
4	22
3	16
2	11
1	5
0	0

Name, Lastname *Student ID #*

Choose the correct words to match the definitions on the right. Write the number of that word next to its meaning.

I
1 concrete
2 era
3 fiber
4 loop
5 plank
6 summit

_____ circular shape
_____ top of a mountain
_____ a long period of time

II
1 apparatus
2 compliment
3 lure
4 scrap
5 tile
6 zeal

_____ expression of admiration
_____ set of instruments for machinery
_____ eagerness

III
1 contemplate
2 exact
3 gamble
4 launch
5 provoke
6 revive

_____ think about deeply
_____ bring back to health
_____ make someone angry

IV
1 demonstrate
2 embarrass
3 heave
4 mess
5 obscure
6 shatter

_____ not clear or plain
_____ break suddenly into small pieces
_____ make someone uncomfortably self-conscious

V
1 abolish
2 drip
3 exile
4 insert
5 resent
6 thrive

_____ bring to an end by law
_____ feel angry about something
_____ separate a person from his country

VI
1 frail
2 internal
3 mature
4 profound
5 solitary
6 tragic

_____ weak
_____ far beneath the surface
_____ alone away from other things

Complete the underlined words.

1. Soldiers usually swear an oa_____ of loyalty to their country.
2. The voter placed the ball_____ in the box.
3. They keep their valuables in a vau_____ at the bank.
4. A bird perched at the window led_____.
5. The management held a secret meeting. The issues discussed were not disc_____ to the workers.
6. The small hill was really a burial mou_____.
7. The soldier was asked to choose between infantry and cav_____.
8. After falling off his bicycle, the boy was covered with bru_____.
9. This is a complex problem which is difficult to compr_____.
10. The kitten is playing with a ball of ya_____.
11. The angry crowd sho_____ the prisoner as he was leaving the court.
12. We could hear the sergeant bel_____ commands to the troops.
13. The boss got angry with the secretary and it took a lot of tact to soo_____ him.
14. We'll have to be inventive and de_____ a scheme for earning more money.
15. The picture looks nice; the colors bl_____ really well.
16. Many people feel depressed and gl_____ about the future of mankind.
17. Nuts and vegetables are considered who_____ food.
18. Many gardens are full of fra_____ flowers.

Name, Lastname *Student ID #*

Choose the correct words to match the definitions on the right. Write the number of that word next to its meaning.

	1 access	
	2 debate	____ plan
I	3 exposure	____ entrance or way in
	4 implementation	____ joining something into a whole
	5 integration	
	6 scheme	
	1 accumulation	
	2 edition	____ collecting things over time
II	3 infrastructure	____ list of things to do at certain times
	4 phenomenon	____ machine used to move people or goods
	5 schedule	
	6 vehicle	
	1 alter	
	2 coincide	____ change
III	3 deny	____ say something is not true
	4 devote	____ describe clearly and exactly
	5 release	
	6 specify	
	1 bond	
	2 estimate	____ make smaller
IV	3 identify	____ guess the number or size of something
	4 indicate	____ recognizing and naming a person or thing
	5 mediate	
	6 minimize	
	1 analogous	
	2 equivalent	____ corresponding
V	3 explicit	____ most important
	4 predominant	____ happening after
	5 reluctant	
	6 subsequent	
	1 abstract	
	2 adjacent	____ stiff
VI	3 controversial	____ next to
	4 neutral	____ added to
	5 rigid	
	6 supplementary	

Complete the underlined words.

1. There has been a recent tr_____ among prosperous families toward a smaller number of children.
2. According to the communist doc_____, workers should rule the world.
3. Spending many years together deepened their inti_____.
4. There are several misprints on each page of this te_____.
5. The suspect had both opportunity and mot_____ to commit the murder.
6. They insp_____ all products before sending them out to stores.
7. The victim's shirt was satu_____ with blood.
8. He is irresponsible. You cannot re_____ on him for help.
9. He finally att_____ a position of power in the company.
10. The urge to survive is inh_____ in all creatures.
11. The anom_____ of this position is that he is the chairman of the committee, but he isn't allowed to vote.
12. The drug was introduced after medical res_____ indisputably proved its effectiveness.
13. Despite his physical condition, his int_____ was unaffected.
14. The job sounded interesting at first, but when he realized what it involved, his excitement sub_____.
15. The airport is far away. If you want to en_____ that you catch your plane, you'll have to leave early.
16. It's difficult to ass_____ a person's true knowledge by one or two tests.
17. The new manager's job was to res_____ the company to its former profitability.
18. His decision to leave home was not well thought out. It was not based on rat_____ considerations.

R E L I A B I L I T Y A N A L Y S I S - S C A L E (A L P H A)

		Mean	Std Dev	Cases
1.	ITEM 1 - loop	.4468	.5025	47.0
2.	ITEM 2 - summit	.8723	.3373	47.0
3.	ITEM 3 - era	.9787	.1459	47.0
4.	ITEM 4 - compliment	.6596	.4790	47.0
5.	ITEM 5 - apparatus	.5532	.5025	47.0
6.	ITEM 6 - zeal	.2979	.4623	47.0
7.	ITEM 7 - contemplate	.8298	.3799	47.0
8.	ITEM 8 - revive	.8511	.3599	47.0
9.	ITEM 9 - provoke	.8085	.3977	47.0
10.	ITEM 10 - obscure	.5319	.5044	47.0
11.	ITEM 11 - shatter	.7660	.4280	47.0
12.	ITEM 12 - embarrass	.8511	.3599	47.0
13.	ITEM 13 - abolish	.8936	.3117	47.0
14.	ITEM 14 - resent	.6170	.4914	47.0
15.	ITEM 15 - exile	.7234	.4522	47.0
16.	ITEM 16 - frail	.9362	.2471	47.0
17.	ITEM 17 - profound	.3830	.4914	47.0
18.	ITEM 18 - solitary	.7234	.4522	47.0
19.	ITEM 19 - oath	.6596	.4790	47.0
20.	ITEM 20 - ballot	.1489	.3599	47.0
21.	ITEM 21 - vault	.1277	.3373	47.0
22.	ITEM 22 - ledge	.1489	.3599	47.0
23.	ITEM 23 - disclosed	.0426	.2040	47.0
24.	ITEM 24 - mound	.0426	.2040	47.0
25.	ITEM 25 - cavalry	.1915	.3977	47.0
26.	ITEM 26 - bruises	.2979	.4623	47.0
27.	ITEM 27 - comprehend	.2979	.4623	47.0
28.	ITEM 28 - yarn	.0638	.2471	47.0
29.	ITEM 29 - shoved	.2766	.4522	47.0
30.	ITEM 30 - bellow	.0426	.2040	47.0
31.	ITEM 31 - soothe	.2979	.4623	47.0
32.	ITEM 32 - devise	.0851	.2821	47.0
33.	ITEM 33 - blend	.2128	.4137	47.0
34.	ITEM 34 - gloomy	.3404	.4790	47.0
35.	ITEM 35 - wholesome	.1489	.3599	47.0
36.	ITEM 36 - fragrant	.2766	.4522	47.0

Statistics for	Mean	Variance	Std Dev	N of Variables
SCALE	16.4255	14.6846	3.8320	36

R E L I A B I L I T Y A N A L Y S I S - S C A L E (A L P H A)

Item-total Statistics

	Scale Mean if Item Deleted	Scale Variance if Item Deleted	Corrected Item-Total Correlation	Alpha if Item Deleted
ITEM1	15.9787	15.1517	-.1840	.6567
ITEM2	15.5532	13.6873	.3540	.6064
ITEM3	15.4468	14.5569	.0956	.6251
ITEM4	15.7660	14.3136	.0391	.6332
ITEM5	15.8723	14.9399	-.1307	.6514
ITEM6	16.1277	14.7225	-.0709	.6431
ITEM7	15.5957	14.3765	.0568	.6289
ITEM8	15.5745	13.4672	.4119	.6007
ITEM9	15.6170	13.8067	.2435	.6134
ITEM10	15.8936	13.9667	.1229	.6252
ITEM11	15.6596	13.9685	.1666	.6200
ITEM12	15.5745	13.9019	.2434	.6141
ITEM13	15.5319	14.2109	.1602	.6208
ITEM14	15.8085	13.4625	.2719	.6091
ITEM15	15.7021	13.7789	.2089	.6160
ITEM16	15.4894	13.9075	.3885	.6092
ITEM17	16.0426	13.4764	.2680	.6095
ITEM18	15.7021	13.0398	.4411	.5926
ITEM19	15.7660	14.4875	-.0089	.6380
ITEM20	16.2766	14.7262	-.0620	.6373
ITEM21	16.2979	13.5180	.4244	.6011
ITEM22	16.2766	14.1175	.1618	.6204
ITEM23	16.3830	14.8501	-.1318	.6345
ITEM24	16.3830	14.7632	-.0767	.6322
ITEM25	16.2340	13.7049	.2790	.6103
ITEM26	16.1277	14.0703	.1155	.6252
ITEM27	16.1277	14.2007	.0775	.6289
ITEM28	16.3617	13.9750	.3510	.6112
ITEM29	16.1489	13.7817	.2080	.6161
ITEM30	16.3830	14.5893	.0344	.6275
ITEM31	16.1277	12.9833	.4465	.5914
ITEM32	16.3404	14.3599	.1147	.6238
ITEM33	16.2128	13.3016	.4016	.5986
ITEM34	16.0851	13.3839	.3057	.6057
ITEM35	16.2766	13.8131	.2773	.6114
ITEM36	16.1489	13.6512	.2481	.6121

Reliability Coefficients

N of Cases = 47.0 N of Items = 36

Alpha = .6266

First Pilot Test Reliability Analysis (Academic Vocabulary) **Appendix H**

R E L I A B I L I T Y A N A L Y S I S - S C A L E (A L P H A)

		Mean	Std Dev	Cases
1.	ITEM 1 - rigid	.7447	.4408	47.0
2.	ITEM 2 - adjacent	.6809	.4712	47.0
3.	ITEM 3 - supplementary	.6596	.4790	47.0
4.	ITEM 4 - equivalent	.2766	.4522	47.0
5.	ITEM 5 - predominant	.7234	.4522	47.0
6.	ITEM 6 - subsequent	.7660	.4280	47.0
7.	ITEM 8 - estimate	.9574	.2040	47.0
8.	ITEM 9 - identify	.9787	.1459	47.0
9.	ITEM 10 - alter	.9574	.2040	47.0
10.	ITEM 11 - deny	.9149	.2821	47.0
11.	ITEM 12 - sepcify	.9149	.2821	47.0
12.	ITEM 13 - accumulation	.7872	.4137	47.0
13.	ITEM 14 - schedule	.9787	.1459	47.0
14.	ITEM 16 - scheme	.8085	.3977	47.0
15.	ITEM 17 - access	.8936	.3117	47.0
16.	ITEM 18 - integration	.8298	.3799	47.0
17.	ITEM 19 - rational	.5319	.5044	47.0
18.	ITEM 20 - restore	.1064	.3117	47.0
19.	ITEM 21 - assess	.4894	.5053	47.0
20.	ITEM 22 - ensure	.2766	.4522	47.0
21.	ITEM 23 - subsided	.0426	.2040	47.0
22.	ITEM 25 - research	.5106	.5053	47.0
23.	ITEM 27 - inherent	.2340	.4280	47.0
24.	ITEM 28 - attained	.2553	.4408	47.0
25.	ITEM 29 - rely	.8298	.3799	47.0
26.	ITEM 30 - saturated	.1489	.3599	47.0
27.	ITEM 31 - inspected	.2766	.4522	47.0
28.	ITEM 32 - motive	.0213	.1459	47.0
29.	ITEM 33 - text	.5106	.5053	47.0
30.	ITEM 34 - intimacy	.2979	.4623	47.0
31.	ITEM 35 - doctrine	.1702	.3799	47.0
32.	ITEM 36 - trend	.5745	.4998	47.0
33.	*ITEM 7 - minimize*	*1.0000*	*.0000*	*47.0*
34.	*ITEM 15 - vehicle*	*1.0000*	*.0000*	*47.0*
35.	*ITEM 24 - intellect*	*.0000*	*.0000*	*47.0*
36.	*ITEM 26 - anomaly*	*.0000*	*.0000*	*47.0*

Items 7, 15, 24, and 26 have zero variance

Statistics for	Mean	Variance	Std Dev	N of Variables
SCALE	18.1489	13.0860	3.6175	32

R E L I A B I L I T Y A N A L Y S I S - S C A L E (A L P H A)

Item-total Statistics

	Scale Mean if Item Deleted	Scale Variance if Item Deleted	Corrected Item-Total Correlation	Alpha if Item Deleted
ITEM1	17.4043	12.9852	-.0294	.6555
ITEM2	17.4681	12.1674	.2119	.6325
ITEM3	17.4894	12.3858	.1397	.6402
ITEM4	17.8723	12.8094	.0223	.6512
ITEM5	17.4255	12.3367	.1715	.6365
ITEM6	17.3830	11.8067	.3727	.6169
ITEM8	17.1915	12.6799	.2508	.6340
ITEM9	17.1702	13.0139	.0483	.6426
ITEM10	17.1915	12.7234	.2205	.6354
ITEM11	17.2340	12.2266	.3954	.6224
ITEM12	17.2340	12.7484	.1281	.6392
ITEM13	17.3617	12.1924	.2501	.6290
ITEM14	17.1702	12.8400	.2150	.6373
ITEM16	17.3404	12.6642	.0931	.6430
ITEM17	17.2553	12.4117	.2629	.6300
ITEM18	17.3191	12.8742	.0248	.6483
ITEM19	17.6170	12.3284	.1421	.6405
ITEM20	18.0426	12.5199	.2127	.6335
ITEM21	17.6596	12.0120	.2337	.6302
ITEM22	17.8723	13.8529	-.2886	.6800
ITEM23	18.1064	12.6623	.2631	.6335
ITEM25	17.6383	12.1489	.1936	.6347
ITEM27	17.9149	11.4709	.4940	.6047
ITEM28	17.8936	11.7928	.3630	.6173
ITEM29	17.3191	12.4394	.1875	.6348
ITEM30	18.0000	12.6957	.1017	.6417
ITEM31	17.8723	11.9833	.2869	.6248
ITEM32	18.1277	13.2007	-.1283	.6482
ITEM33	17.6383	12.2794	.1557	.6390
ITEM34	17.8511	11.8252	.3294	.6202
ITEM35	17.9787	11.8908	.4011	.6164
ITEM36	17.5745	11.5541	.3774	.6137

Reliability Coefficients

N of cases = 47 N of Items = 32 items

Alpha = .6424

Second Pilot Test Reliability Analysis **Appendix I**
(5,000-word List, Academic Vocabulary, & Off-List Words Combined)

R E L I A B I L I T Y A N A L Y S I S - S C A L E (A L P H A)

		Mean	Std Dev	Cases
1.	ITEM 1 - integration	.3421	.4808	38.0
2.	ITEM 2 - retention	.3158	.4711	38.0
3.	ITEM 3 - sequel	.2105	.4132	38.0
4.	ITEM 4 - apparatus	.2895	.4596	38.0
5.	ITEM 5 - compliment	.4211	.5004	38.0
6.	ITEM 6 - summit	.4737	.5060	38.0
7.	ITEM 7 - exile	.5263	.5060	38.0
8.	ITEM 8 - provoke	.3947	.4954	38.0
9.	ITEM 9 - revive	.5000	.5067	38.0
10.	ITEM 10 - efface	.1316	.3426	38.0
11.	ITEM 11 - prevail	.1842	.3929	38.0
12.	ITEM 12 - resent	.2105	.4132	38.0
13.	ITEM 13 - equivalent	.0789	.2733	38.0
14.	ITEM 14 - predominant	.6842	.4711	38.0
15.	ITEM 15 - subsequent	.3684	.4889	38.0
16.	ITEM 16 - adjacent	.1053	.3110	38.0
17.	ITEM 17 - profound	.1579	.3695	38.0
18.	ITEM 18 - supplementary	.1842	.3929	38.0
19.	ITEM 19 - consented	.0263	.1622	38.0
20.	ITEM 20 - rejects	.6842	.4711	38.0
21.	ITEM 21 - sedative	.0000	.0000	38.0
22.	ITEM 22 - compliance	.0000	.0000	38.0
23.	ITEM 23 - spectacular	.2632	.4463	38.0
24.	ITEM 24 - vitality	.0263	.1622	38.0
25.	ITEM 25 - inspected	.1316	.3426	38.0
26.	ITEM 26 - session	.6579	.4808	38.0
27.	ITEM 27 - vocation	.1842	.3929	38.0
28.	ITEM 28 - attained	.0263	.1622	38.0
29.	ITEM 29 - tangible	.0526	.2263	38.0
30.	ITEM 30 - preparation	.3684	.4889	38.0
31.	ITEM 31 - subsided	.0263	.1622	38.0
32.	ITEM 32 - contact	.2368	.4309	38.0
33.	ITEM 33 - fundamental	.3421	.4808	38.0
34.	ITEM 34 - assess	.1053	.3110	38.0
35.	ITEM 35 - domestic	.2895	.4596	38.0
36.	ITEM 36 - superficial	.1053	.3110	38.0

Statistics for	Mean	Variance	Std Dev	N of Variables
SCALE	9.1053	14.4211	3.7975	36

R E L I A B I L I T Y A N A L Y S I S - S C A L E (A L P H A)

Item-total Statistics

	Scale Mean if Item Deleted	Scale Variance if Item Deleted	Corrected Item-Total Correlation	Alpha if Item Deleted
ITEM1	8.7632	14.0235	.0462	.6349
ITEM2	8.7895	13.0356	.3421	.6042
ITEM3	8.8947	13.7183	.1738	.6216
ITEM4	8.8158	12.9651	.3761	.6011
ITEM5	8.6842	12.7084	.4099	.5956
ITEM6	8.6316	12.4011	.4949	.5853
ITEM7	8.5789	13.4936	.1806	.6213
ITEM8	8.7105	13.0761	.3069	.6074
ITEM9	8.6053	12.5156	.4598	.5894
ITEM10	8.9737	14.5128	-.0801	.6401
ITEM11	8.9211	14.0747	.0651	.6307
ITEM12	8.8947	13.2859	.3202	.6083
ITEM13	9.0263	14.5128	-.0799	.6371
ITEM14	8.4211	13.2774	.2685	.6120
ITEM15	8.7368	13.9829	.0545	.6343
ITEM16	9.0000	14.4324	-.0457	.6365
ITEM17	8.9474	13.5647	.2644	.6143
ITEM18	8.9211	14.2909	-.0081	.6367
ITEM19	9.0789	14.3450	.0405	.6290
ITEM20	8.4211	13.7639	.1245	.6267
ITEM21	9.1053	14.4211	.0000	.6292
ITEM22	9.1053	14.4211	.0000	.6292
ITEM23	8.8421	13.1636	.3268	.6066
ITEM24	9.0789	14.1828	.1735	.6244
ITEM25	8.9737	13.5398	.3030	.6121
ITEM26	8.4474	14.4701	-.0766	.6470
ITEM27	8.9211	14.0206	.0836	.6291
ITEM28	9.0789	14.2909	.0847	.6275
ITEM29	9.0526	14.7539	-.2209	.6418
ITEM30	8.7368	13.9829	.0545	.6343
ITEM31	9.0789	14.1828	.1735	.6244
ITEM32	8.8684	13.1984	.3312	.6067
ITEM33	8.7632	13.0505	.3280	.6055
ITEM34	9.0000	14.3243	.0000	.6335
ITEM35	8.8158	13.9381	.0792	.6310
ITEM36	9.0000	14.0000	.1394	.6243

Reliability Coefficients

N of Cases = 38.0 N of Items = 36

Alpha = .6287

Pre-test Reliability Analysis of the Main Study **Appendix J**
(5,000-word List, Academic Vocabulary, & Off-List Words Combined)

R E L I A B I L I T Y A N A L Y S I S - S C A L E (A L P H A)

		Mean	Std Dev	Cases
1.	Item 1 - integration	.5492	.4996	122.0
2.	Item 2 - retention	.7213	.4502	122.0
3.	Item 3 - sequel	.5246	.5015	122.0
4.	Item 4 - apparatus	.7295	.4460	122.0
5.	Item 5 - compliment	.5902	.4938	122.0
6.	Item 6 - summit	.7541	.4324	122.0
7.	Item 7 - exile	.7295	.4460	122.0
8.	Item 8 - provoke	.6639	.4743	122.0
9.	Item 9 - revive	.7459	.4371	122.0
10.	Item 10 - efface	.2541	.4371	122.0
11.	Item 11 - prevail	.3279	.4714	122.0
12.	Item 12 - resent	.4918	.5020	122.0
13.	Item 13 - equivalent	.3852	.4887	122.0
14.	Item 14 - predominant	.8607	.3477	122.0
15.	Item 15 - subsequent	.8443	.3641	122.0
16.	Item 16 - adjacent	.5246	.5015	122.0
17.	Item 17 - profound	.3607	.4822	122.0
18.	Item 18 - supplementary	.5082	.5020	122.0
19.	Item 19 - consented	.0820	.2754	122.0
20.	Item 20 - rejects	.8525	.3561	122.0
21.	Item 21 - sedative	.0738	.2625	122.0
22.	Item 22 - compliance	.0082	.0905	122.0
23.	Item 23 - spectacular	.4590	.5004	122.0
24.	Item 24 - vitality	.1148	.3200	122.0
25.	Item 25 - inspected	.2951	.4580	122.0
26.	Item 26 - session	.6885	.4650	122.0
27.	Item 27 - vocation	.3689	.4845	122.0
28.	Item 28 - attained	.2049	.4053	122.0
29.	Item 29 - tangible	.4344	.4977	122.0
30.	Item 30 - preparation	.8770	.3297	122.0
31.	Item 31 - subsided	.0082	.0905	122.0
32.	Item 32 - contact	.3033	.4616	122.0
33.	Item 33 - fundamental	.5000	.5021	122.0
34.	Item 34 - assess	.4918	.5020	122.0
35.	Item 35 - domestic	.4344	.4977	122.0
36.	Item 36 - superficial	.2459	.4324	122.0

Statistics for	Mean	Variance	Std Dev	N of Variables
SCALE	17.0082	23.8098	4.8795	36

Pre-test Reliability Analysis of the Main Study **Appendix J**
(5,000-word List, Academic Vocabulary, & Off-List Words Combined)

R E L I A B I L I T Y A N A L Y S I S - S C A L E (A L P H A)

Item-total Statistics

	Scale Mean if Item Deleted	Scale Variance if Item Deleted	Corrected Item-Total Correlation	Alpha if Item Deleted
ITEM1	16.4590	22.1677	.2960	.7245
ITEM2	16.2869	22.5369	.2504	.7273
ITEM3	16.4836	22.1692	.2942	.7246
ITEM4	16.2787	22.4671	.2705	.7262
ITEM5	16.4180	22.6255	.2002	.7304
ITEM6	16.2541	22.3564	.3097	.7242
ITEM7	16.2787	22.6324	.2306	.7284
ITEM8	16.3443	22.0293	.3494	.7214
ITEM9	16.2623	22.8397	.1864	.7308
ITEM10	16.7541	22.6167	.2410	.7279
ITEM11	16.6803	22.1697	.3194	.7232
ITEM12	16.5164	22.0369	.3227	.7228
ITEM13	16.6230	22.6831	.1908	.7309
ITEM14	16.1475	22.7880	.2714	.7270
ITEM15	16.1639	22.7002	.2816	.7263
ITEM16	16.4836	22.4336	.2368	.7282
ITEM17	16.6475	22.2466	.2926	.7248
ITEM18	16.5000	22.1198	.3045	.7239
ITEM19	16.9262	22.9284	.3054	.7268
ITEM20	16.1557	23.6367	.0134	.7381
ITEM21	16.9344	23.4006	.1340	.7326
ITEM22	17.0000	23.6033	.2255	.7325
ITEM23	16.5492	22.7786	.1635	.7327
ITEM24	16.8934	23.1373	.1852	.7307
ITEM25	16.7131	22.2228	.3190	.7234
ITEM26	16.3197	22.3350	.2864	.7252
ITEM27	16.6393	22.5961	.2125	.7296
ITEM28	16.8033	22.4073	.3227	.7238
ITEM29	16.5738	22.2135	.2874	.7250
ITEM30	16.1311	23.2058	.1559	.7319
ITEM31	17.0000	23.6364	.1878	.7329
ITEM32	16.7049	23.8626	-.0589	.7446
ITEM33	16.5082	22.8636	.1446	.7339
ITEM34	16.5164	22.5493	.2115	.7298
ITEM35	16.5738	22.6763	.1869	.7312
ITEM36	16.7623	22.6786	.2293	.7285

Reliability Coefficients

N of Cades = 122 N of Items = 36

Alpha = .7341

Post-test Reliability Analysis of the Main Study **Appendix K**
(5,000-word List, Academic Vocabulary, & Off-List Words Combined)

R E L I A B I L I T Y A N A L Y S I S - S C A L E (A L P H A)

		Mean	Std Dev	Cases
1.	Item 1 - integration	.5755	.4953	245.0
2.	Item 2 - retention	.8122	.3913	245.0
3.	Item 3 - sequel	.7673	.4234	245.0
4.	Item 4 - apparatus	.6980	.4601	245.0
5.	Item 5 - compliment	.7061	.4565	245.0
6.	Item 6 - summit	.7673	.4234	245.0
7.	Item 7 - exile	.7224	.4487	245.0
8.	Item 8 - provoke	.5878	.4932	245.0
9.	Item 9 - revive	.8245	.3812	245.0
10.	Item 10 - efface	.1878	.3913	245.0
11.	Item 11 - prevail	.5102	.5009	245.0
12.	Item 12 - resent	.3796	.4863	245.0
13.	Item 13 - equivalent	.4367	.4970	245.0
14.	Item 14 - predominant	.8694	.3377	245.0
15.	Item 15 - subsequent	.9306	.2546	245.0
16.	Item 16 - adjacent	.7184	.4507	245.0
17.	Item 17 - profound	.4939	.5010	245.0
18.	Item 18 - supplementary	.5714	.4959	245.0
19.	Item 19 - consented	.1143	.3188	245.0
20.	Item 20 - rejects	.8939	.3086	245.0
21.	Item 21 - sedative	.1184	.3237	245.0
22.	Item 22 - compliance	.0367	.1885	245.0
23.	Item 23 - spectacular	.4286	.4959	245.0
24.	Item 24 - vitality	.1918	.3946	245.0
25.	Item 25 - inspected	.5306	.5001	245.0
26.	Item 26 - session	.8776	.3285	245.0
27.	Item 27 - vocation	.4204	.4946	245.0
28.	Item 28 - attained	.3714	.4842	245.0
29.	Item 29 - tangible	.4898	.5090	245.0
30.	Item 30 - preparation	.9633	.2091	245.0
31.	Item 31 - subsided	.0367	.1885	245.0
32.	Item 32 - contact	.2735	.4467	245.0
33.	Item 33 - fundamental	.6082	.4892	245.0
34.	Item 34 - assess	.6490	.4783	245.0
35.	Item 35 - domestic	.5755	.4953	245.0
36.	Item 36 - superficial	.3633	.4819	245.0

Statistics for	Mean	Variance	Std Dev	N of Variables
Scale	19.5020	26.4395	5.1419	36

Post-test Reliability Analysis of the Main Study **Appendix K**
(5,000-word List, Academic Vocabulary, & Off-List Words Combined)

R E L I A B I L I T Y A N A L Y S I S - S C A L E (A L P H A)

Item-total Statistics

	Scale Mean if Item Deleted	Scale Variance if Item Deleted	Corrected Item-Total Correlation	Alpha if Item Deleted
ITEM1	18.9265	24.5765	.3294	.7635
ITEM2	18.6898	25.0837	.3068	.7651
ITEM3	18.7347	25.2449	.2387	.7679
ITEM4	18.8041	25.6172	.1311	.7730
ITEM5	18.7959	25.5893	.1390	.7726
ITEM6	18.7347	24.7777	.3517	.7630
ITEM7	18.7796	25.5824	.1445	.7722
ITEM8	18.9143	25.2754	.1857	.7708
ITEM9	18.6776	25.7604	.1380	.7718
ITEM10	19.3143	25.2246	.2701	.7666
ITEM11	18.9918	24.5901	.3218	.7639
ITEM12	19.1224	24.4522	.3641	.7618
ITEM13	19.0653	25.0203	.2358	.7683
ITEM14	18.6327	25.1842	.3368	.7646
ITEM15	18.5714	25.7295	.2498	.7682
ITEM16	18.7837	25.4899	.1640	.7714
ITEM17	19.0082	24.3524	.3714	.7613
ITEM18	18.9306	24.4501	.3555	.7622
ITEM19	19.3878	24.9269	.4432	.7614
ITEM20	18.6082	25.7475	.1906	.7696
ITEM21	19.3837	25.3932	.2886	.7664
ITEM22	19.4653	25.8810	.2727	.7686
ITEM23	19.0735	25.1175	.2165	.7693
ITEM24	19.3102	25.8132	.1174	.7727
ITEM25	18.9714	24.2738	.3888	.7604
ITEM26	18.6245	25.5715	.2288	.7684
ITEM27	19.0816	25.0425	.2328	.7685
ITEM28	19.1306	24.4911	.3577	.7622
ITEM29	19.0122	24.6761	.2975	.7652
ITEM30	18.5388	26.2495	.0683	.7726
ITEM31	19.4653	25.7990	.3160	.7678
ITEM32	19.2286	25.6361	.1335	.7727
ITEM33	18.8939	25.5789	.1256	.7737
ITEM34	18.8531	24.8308	.2895	.7656
ITEM35	18.9265	24.5765	.3294	.7635
ITEM36	19.1388	23.9315	.4827	.7558

N of Cases = 245.0 N or items = 36

Alpha = .7721

Name, Lastname	*Student ID #*	

Choose the correct words to match the definitions on the right. Write the number of that word next to its meaning.

I

1 conspicuous
2 dissentious
3 sensational
4 sentimental
5 univocal
6 vociferous

_____ easily seen
_____ tending to disagree
_____ having only one meaning

II

1 aspect
2 evocation
3 perspective
4 sensibility
5 sentiment
6 spectacle

_____ a calling forth
_____ a public show or display
_____ a refined or tender emotion

III

1 advocate
2 assent
3 equivocate
4 expect
5 invoke
6 respect

_____ to agree, give in
_____ to hold in esteem
_____ to use unclear expressions

IV

1 –ble
2 –er / –or
3 –ic
4 –ist
5 –ity
6 –ive

_____ state or condition
_____ characteristic, style
_____ tendency, disposition

V

1 ad–
2 con–
3 dis–
4 ex–
5 pro–
6 re–

_____ to, towards
_____ out of, from
_____ with, together, completely

VI

1 –ble
2 pro–
3 re–
4 sens / sent
5 spec / spect
6 voc / vok

___ + ___ cancel, annul
___ + ___ a looking forward
___ + ___ having sound judgment

Complete the underlined words.

1. The government follows an ass_____ policy to secure votes in the forthcoming elections.
2. Education is our greatest opportunity to give an irre_____ gift to the next generation.
3. What appears spe_____ today will be natural tomorrow.
4. Convo_____ is an assembly the members of which have been summoned for a special cause.
5. In ancient Rome, the spec_____ in the arena decided whether the defeated gladiator should be killed or saved.
6. I strongly dis_____ from what the last speaker has said about the recent developments.
7. It is almost impossible to spe_____ what might have happened if he hadn't detected the leakage in the gas pipe.
8. *Menus That Talk*, a portable hand-held electronic device introduced in May 2007, voc_____ what is for dinner in a restaurant.
9. A ske_____ doubts and is critical of all accepted doctrines and creeds.
10. A voc_____ is the calling case of a noun or noun phrase that is used to directly address a person.
11. Disappointment is a sort of bankruptcy - the bankruptcy of a soul that expends too much in hope and expec_____.
12. At night, when the sky is full of stars and the sea is still, you get the wonderful sens_____ that you are floating in space.
13. I don't want to be just a straight pop singer. I'm a voc_____ and that's what I want to be seen as in the long run.
14. The board of directors was con_____ at the outbreak of financial crisis.
15. A man prone to sus_____ evil is mostly looking in his neighbor for what he sees in himself.
16. Since no talking or pleading helped, the boy had to voci_____ his displeasure.
17. He had no other alternative in pros_____.
18. Architecture is not an inspirational business; it's a rational procedure to do sen_____ and hopefully beautiful things.

Name, Lastname *Student ID #*

Choose the correct words to match the definitions on the right. Write the number of that word next to its meaning.

	1 assentive		
	2 factual	____	agreeing, yielding
I	3 irrevocable	____	not to be recalled; unalterable
	4 plentiful	____	merely touching; slightly connected
	5 subjective		
	6 tangential		
	1 available		
	2 domelike	____	untouched, unblemished
II	3 executive	____	incapable of sustaining its own life
	4 intact	____	having authority for carrying out plans
	5 inviable		
	6 possessed		
	1 sedan		
	2 sensation	____	the essential parts
III	3 spectrum	____	a state of excited feeling
	4 tenant	____	one who rents and occupies a place
	5 vitals		
	6 vocalist		
	1 advocacy		
	2 expectation	____	the basis or groundwork
IV	3 foundation	____	an instrument for fulfilling a task
	4 implement	____	the path a bullet follows in the air
	5 integer		
	6 trajectory		
	1 convoke		
	2 entertain	____	to assume, suppose
V	3 sensualize	____	to gather, assemble
	4 speculate	____	to take the place of; overrule
	5 supersede		
	6 vivify		
	1 comply		
	2 detain	____	to have strong authority
VI	3 dominate	____	do as demanded; conform
	4 obsess	____	to preoccupy the mind excessively
	5 refund		
	6 survive		

Complete the underlined words.

1. A work of art is the expression of a man's whole personality, sensi_____ and ability.
2. The reporter had to shout into his microphone to convey his message over the clamor of the voci_____ crowd at the concert.
3. Everything we hear is an opinion, not a fact. Everything we see is a persp_____, not the truth.
4. They set up a viva_____ to observe the animal under conditions similar to its natural environment.
5. A student with a tac_____ learning style touches and explores objects to comprehend their characteristics.
6. They worked until dark to com_____ the work and meet the deadline.
7. "Objection, Your Honor!" the lawyer inter_____ and was disappointed when the judge dismissed his request.
8. Knowing that nicotine is hazardous to his health, he abst_____ from not only smoking but also being in places where others smoke.
9. The leader had expected differences of opinion among the party members, but he was surprised to face such a widespread dissi_____ on the issue.
10. Music should be able to inv_____ the natural emotions in all human beings just as poetry calls for elevated thoughts in them.
11. The shipwreck was found buried under the cover of sed_____ piled up on the ocean floor.
12. As a conse_____ of improper maintenance, the car was not functioning well.
13. The inspector eval_____ all the evidence to determine their significance.
14. Not only happiness but also gloom is conta_____: both tend to spread from person to person.
15. The nurse gave him not only the medicine the doctor prescribed, but also some vit_____ as a supplement.
16. The management decided to tear down the wall that sepa_____ the two buildings as to combine the lots, and thus provide a larger parking space.
17. It was such a senti_____ song that it almost made me cry.
18. In the arctic regions, the top few inches of ice melts in the summer, but the subsu_____ soil remains frozen all through the year.

DAILY LESSON PLAN			
PART ONE	**Teacher's Name:** Hayriye Karliova		**Class:** 1-C / 1-D
	Lesson Name: Vocabulary Knowledge		**Date & Time:** October 30, 2007 – 10:30 / 12:30
	Book Name: -- Software presentation & course handouts only		**Duration:** 40 minutes
	Unit Name & Number: Latinate Roots & Affixes		**Topic:** to call > L. *voc-* (*vok-*); voice > L. vox *con-*, *ir-* (*in-*), *re-*; *-ary, -ize*, *-ist*
	Objectives of the lesson	**Linguistic:**	To create student awareness of the root *voc-/vok-* and its forms when combined with affixes to make English words
		Lexical:	To teach the words consisting the root *voc-/vok-* and also the possible collocations and fixed expressions these words form
		(Expected) Behaviors:	Students will be able to notice the morpheme forming the English words deriving their meanings from the Latinate word under study.
	Unit Concepts:		Latinate words derived from *voc-/vok-*, namely, *vocal, vocalize, vocalist, vocabulary, vocative, vociferate, vociferous, advocate, convoke, convocation, revoke,* and *irrevocable*
	Anticipated Problems:		Students may not be familiar with the target morpheme and may have difficulty in recalling the related Latinate words in use.
	Presumed Knowledge:		Students are supposed to know the previously covered affixes. Also, some of the words, such as *vocal* and *vocabulary,* may already be a part of students' word knowledge.
	Possible Solutions:		Recalling a word they came across with before and noticing the morpheme therein will help them become aware of the morphological combinations in Latinate words.
	Technological Devices:		A personal computer and a projector to reflect the software presentation on the whiteboard
	Student Resources:		Students are not required to use resources such as dictionaries during the lecture, but are encouraged to do so afterwards.
	Teacher Resources:		A presentation compiled by the instructor for the lesson and wireless Internet connection to refer if needed.

PART TWO	**PROCESS - I**	**Time**	10-15 minutes
			Linguistic: Awareness of the morphemes
			Lexical: The lexical items selected
			Skills: Guessing and recalling
		P R O C E D U R E ONE	1) A short overview of the words containing the root covered in the previous lesson, namely, *sent-/sens-*, will be made as a warm up activity. Further examples of the words bearing the same root-verb will be presented to reinforce the knowledge the root and the affixes. 2) Sentences having slots to be filled in with the studied words in the previous lesson will be projected on the whiteboard and the students will be expected to come up with the appropriate words to fill in the blanks.
		Techniques	Guessing and recalling
		Expected Behaviors	Students will be stimulated (1) to guess the meanings of the new words presented from the morphemes the words contain and (2) to recall the words they recently learned. Debating the guess-work will be encouraged.
PART TWO	**PROCESS - II**	**Time**	25-30 minutes
			Linguistic: The selected morpheme, *voc- (vok-)*
			Lexical: Words derived from the morpheme
			Skills: Noticing and recalling
		P R O C E D U R E TWO	The Latin phrase, *wox populi*, will be utilized as a preamble to the new root-verb. Historical background of the phrase will be mentioned to motivate learning and kindle attention. The morpheme *voc-/vok-* will be presented and the denotations, and where appropriate, the connotations of the selected words deriving from this root will be covered. Examples of sentences wherein these words take place will be given to show their use in practice. The practice will also give the chance to work on other words, such as *commencement*, that need attention as to make the meanings clear.
		Techniques	Consciousness raising
		Expected Behaviors	Students will be stimulated to think and recall, and also to raise questions as to clear the word meanings.

PART THREE	**Assessment & Evaluation**	Participation: *[to be noted after the lesson]* Individual: Group: Mixed-ability: Strong Learners: Weak Learners:
PART FOUR	**Possible Problems and Solutions Related to the Application of the Lesson Plan**	Retention of the new words is generally a problem for foreign language learners since they do not have the opportunity to hear these words in a natural communicative environment. Therefore, the students need to rely mostly on reading in the target language. As to emphasize the importance of selective attention in noticing the roots and affixes, the students will be asked to search for the words covered in the lesson when reading later and to bring the sentences they come across as to share them with their classmates during the next session. They will also be encouraged to find other words that contain the same morpheme and check their meanings in their dictionaries as to make sure that the roots and affixes are detected correctly.

Learning vocabulary *through* Latinate word parts

voc / (vok) > vocare = *to call* – [vox, vocis = voice]

vox populi > "the voice of the people" = popular opinion

vocal > *-al* (adj) = pertaining to voice

vocalize > *-al* / *-ize* = adj suffix / verb suffix
-ize > adj / noun + ize > verb = to render, to make

vocalist > *-al* / *-ist* = adj suffix / noun suffix
-ist > one who practices or is concerned with *(always denotes a person)*

vocabulary > *-able* / *-ary* = adj suffix / noun suffix
-ary > nouns denoting objects, especially receptacles or places

vocative > *(-at)* / *-ive* = (L. verb sfx) / adj suffix –the calling case–
Et tu, Brute. (*Julius Caesar)* = "And you, O Brutus." (You also, Brutus.)
[Brutus was a Roman politician and general of the 1st century BC and one of Julius Caesar's *assassins*. > Ar. 'hashshashin' = eaters of hashish; 'assassiyun' = people who are faithful to the Assass, the "foundation" of the faith]

vociferate > *(-fer-)* / *-ate* = (L. to bear) / verb suffix > to speak or cry out loudly or noisily; shout, especially in protest

vociferous > *(-fer-)* / *-ous* = (L. to bear) / adj sfx
"With Cicero's death the Roman Republic lost its most vociferous defender and soon fell under the autocratic rule of a series of emperors."
Marcel Theroux,"The Politico" (re: Imperium by Robert Harris)

advocate > *ad-* / *-ate* = prefix / verb suffix
v.t. to support or urge by argument > "He advocated higher salaries for teachers."
n. a person who speaks or writes in support or defense of a person, cause, etc.
> "an advocate of peace"

convoke > *con-* prefix = '*together*'

convocation > *con-* / *(-at)* / *-ion* = prefix / (L. verb sfx) / noun sfx – the act of convoking; a group of people gathered; formal assembly, especially for a graduation ceremony.

voc / (vok) = *to call*

"At some universities and colleges, graduation ceremonies consist of both a *commencement* and a convocation with the commencement being the larger, university-wide ceremony and the individual colleges presenting degrees at a convocation." *(Wikipedia.org)*

revoke > *re-* = prefix > "back"
> to withdraw, cancel; to annul by recalling, as in, "to revoke a decree"

irrevocable > *ir-* / *re-* / *-able* = prefixes / adj suffix – ir- = in + r... > ir- "not"
> unable to be annulled; unalterable, as in, "an irrevocable decree"

New affixes covered

Prefixes > con- / re- / ir- (in-)
Suffixes > -ize / -ist / -ary

Words covered

vocal / vocalize / vocalist / *vocabulary* / vocative / vociferate / vociferous
advocate / convoke / convocation / revoke / irrevocable

* [in AWL / *UWL* / **Off-list**]

* *HK note:*

- AWL > Academic Word List
- UWL > University Word List
- Off-list > Words neither in the above lists, nor in the GSL (General Service List = 2000-word List)

Oct. 30, 2007 – H.Karliova