

**EXPLICIT AND INCIDENTAL
TEACHING OF ENGLISH VERB-
NOUN COLLOCATIONS IN AN EFL
CONTEXT**

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DOKTORA TEZİ

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DISSERTATION

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ABSTRACT

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The study examined the efficacy of explicit (collocation-focused) and incidental (meaning-focused) teaching of the formal and semantic aspects of L2 collocations. Three instructional conditions were created in the study to reveal the extent to which eight previously unknown verb + noun collocations were learned by Turkish adult intermediate learners as they were exposed to collocations in; (1) an explicit teaching condition, (2) an incidental teaching condition and (3) an incidental teaching condition + higher encounter frequency. Learning gains from the three types of instruction were measured with an immediate test and a delayed post-test with four sub-sections, i.e. (i) two form recognition tests, (ii) a meaning recognition test (iii) a reading cloze test. The scores of the three groups were compared using ANOVA and post hoc tests. To measure attrition of learning gains, scores from the immediate test and the delayed post-test were compared using t-tests. Also, repeated ANOVA was used to compare the three groups in terms of their retention profiles. The analysis of the three groups' scores revealed that explicit collocation instruction was more effective than the two incidental teaching conditions in terms of learners' performance in the four test sections. It was also found that knowledge of collocations acquired in the explicit teaching condition was not prone to attrition as revealed by the delayed post-test mean scores of the three groups. The analysis of the mean scores of the two incidental teaching groups demonstrated that both incidental learning conditions in the study can lead to some learning gains. Especially, the incidental teaching condition involving higher frequency of encounter was found to result in higher learning gains than the other incidental teaching condition which did not involve higher encounter frequency.

Keywords: Collocations, incidental teaching, explicit teaching, vocabulary

ÖZET

İNGİLİZCENİN YABANCI DİL OLARAK ÖĞRETİMİNDE FİİL+İSİM EŞDİZİMLİLİKLERİNİN TASARLANMIŞ VE RASTLANTISAL OLARAK ÖĞRETİMİ

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Bu çalışmada, yabancı dildeki eşdizimliliklerin tasarlanmış ve rastlantısal öğretiminin etkisi, eşdizimliliklerin biçimsel ve anlamsal yönlerinin öğrenilmesi bakımından araştırılmıştır. Daha önceden bilinmeyen sekiz fiil-isim eşdizimliliğinin öğrenciler tarafından ne derece öğrenildiğini ortaya koymak amacıyla (1) tasarlanmış öğretim, (2) rastlantısal öğretim ve (3) rastlantısal öğretim + daha yüksek karşılaşma sıklığı teknikleri kullanılmıştır. Üç öğretim tipinden edinilen öğrenme kazanımları, (i) biçim tanıma, (ii) anlam tanıma ve (iii) okuma parçasında boşluk doldurma bölümlerini içeren uygulama sonrası testi ve ertelenmiş test ile ölçülmüştür. Üç grubun puanları ANOVA ve post-hoc testleri kullanılarak karşılaştırılmıştır. Öğrenme kazanımlarının unutulma düzeylerini ölçmek amacıyla, uygulama sonrası testi ve ertelemiş testten elde edilen puanlar t-test kullanılarak karşılaştırılmıştır. Üç grubu akılda tutma profilleri bakımından karşılaştırmak amacıyla, tekrarlanmış ANOVA kullanılmıştır. Üç grubun puanlarının analizi, tasarlanmış eşdizimlilik öğretiminin diğer iki rastlantısal öğretim ortamından daha etkili olduğunu ortaya koymuştur. Üç grubun ertelenmiş testten elde ettikleri puanlar ise tasarlanmış öğretim ortamında öğrenilen eşdizimlilik bilgisinin unutulmaya yatkın olmadığını ortaya koymuştur. İki rastlantısal öğretim grubunun puan ortalamalarının analizi, her iki rastlantısal öğretim tekniğinin bir miktar öğrenme kazanımlarına yol açtığını göstermiştir. Özellikle de, yüksek karşılaşma sıklığını içeren rastlantısal öğretme ortamının, yüksek karşılaşma sıklığı içermeyen rastlantısal öğretim ortamından daha çok öğrenme kazanımlarına yol açtığı görülmüştür.

Anahtar sözcükler: Eşdizimlilik, tasarlanmış öğretim, rastlantısal öğretim, kelime

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LIST OF ABBREVIATIONS

ELT	: English Language Teaching
EFL	: English as a Foreign Language
ETG	: Explicit Teaching Group
FR1	: Form Recognition Test 1
FR2	: Form Recognition Test 2
IT1	: Incidental Teaching Group
IT2	: Incidental Teaching + Input Frequency Group
L1	: First Language
L2	: Second Language
MR	: Meaning Recognition Test
RCT	: Reading Cloze Test

CHAPTER ONE

INTRODUCTION

1.1. Background to the Study

Vocabulary is an important aspect of the second language learning process. However, many learners experience difficulties in developing a good knowledge of L2 vocabulary. They are usually overwhelmed by the task of committing to memory large numbers of L2 words. Even if they learn the basic meaning of numerous L2 words, they are still far from having a good working knowledge of L2 vocabulary. This is because learning vocabulary is a multi-faceted process involving different types of knowledge. As Nation (2001) described, knowing a word entails learning the formal (spelling, orthography, pronunciation etc.) and semantic (concepts, referents etc.) aspects of words as well as the constraints on their correct use. Knowledge about the correct use of words includes, among others, being aware of the collocational properties of words. This type of knowledge is essential for acquiring efficient vocabulary knowledge. This is because, in some cases, the meaning of a word can be only deduced or expressed by referring to the collocational properties of that word. For example, the meaning of the word ‘acid’ is usually deducible from the word ‘odor’ which usually keeps company with the former. Again, the words in the two combinations ‘give birth’ and ‘give the impression’ are used together. Learners who lack this type of knowledge are likely to face difficulties in decoding or encoding the intended meaning of words during communication. What is more, without sufficient knowledge of the collocational properties of words, most learners risk violating native speaker collocational norms and sounding foreign to a native speaker’s ear.

Studies demonstrate that learners with an insufficient knowledge of the collocational properties of words produce unacceptable word combinations. (Bahns & Eldaw 1993; Farghal & Obiedat 1995; Howarth 1996; Nesselhauf 2003). It is usually the case that most learners combine words according to their meaning alone. For example, based on the meaning of the verb ‘put’, they say ‘put something on fire’ rather than ‘set something on fire’. Considering the mismatches between native speakers’ collocational norms and that of L2 learners’, it can be said that deficiencies in learners’ knowledge of the

collocational aspects of words affect communication negatively. Also, a deficiency in the knowledge of collocational properties of L2 words prevents learners from using the language fluently. It is usually argued that whereas native speakers retrieve chunks of words from memory as ready-made units (holistic processing), L2 learners usually process the same items individually according to their meaning. However, this type of analytical language processing draws heavily on learners' limited cognitive sources. Regarding the significance of knowledge of collocational properties of words in language processing Lewis points out;

Instead of words, we consciously try to think of collocations, and to present these in expressions. Rather than trying to break things into ever smaller pieces, there is a conscious effort to see things in larger, more holistic, ways (Lewis, 1997, p. 204).

Lewis (1993) states that holistic language processing in the form of storage and retrieval of collocating words in the long-term memory underlies fluency and accuracy. In the same vein, Wray (2002) notes that a good knowledge of the collocational aspects of words has a direct effect on learners' oral performance as well as on their reading speed.

Based on the significance and benefits of processing words in the form of collocational chunks, language teaching practitioners and researchers now argue that the collocational aspects of words need to be taught to learners rather than leaving them to their own devices to acquire that knowledge on their own. (Lewis, 1997; Nattinger and DeCarrico, 1992). However, the question of how to teach L2 collocations effectively is a matter of debate in the field of instructed language learning. Although, much research has been devoted to the teaching of individual words in SLA, relatively few studies have actually addressed the issue of teaching of the collocational properties of L2 words.

1.2. Statement of the Problem

The majority of collocation studies in the literature focuses primarily on analyzing L2 learners' state of collocational knowledge or on their collocational errors (e.g., Bahns and Eldaw, 1993; Farghal & Obeidat, 1995; Granger, 1998). They describe the types of collocation errors in learners' interlanguage and attempt to trace the source of such errors. Leaving aside the studies examining deficiencies in learners' knowledge of L2 collocations, it is probably true to say that there exists a paucity of research examining the actual teaching of L2 collocations. Hence, more research is needed to see whether

teaching collocations under different instructional conditions is conducive for learners to commit the collocational properties of words to memory. Prompted by this research gap, the present study attempts to shed light on the benefits of teaching collocations.

In order to address the question of what type of instructional condition(s) leads to better learning gains, the present study investigates the efficacy of explicit (collocation-focused) and incidental (meaning-focused) teaching of collocations. Though vocabulary teaching literature abounds with studies investigating the benefits of incidental and explicit vocabulary teaching, studies examining the efficacy of incidental and explicit teaching of collocations are few in number. For this reason, there is a need for empirical studies to better understand the relationship between incidental (meaning-focused) and explicit (collocation-focused) teaching of L2 collocations and learners' development of the knowledge of formal and semantic aspects of collocations.

Regarding the instructional value of explicit and incidental teaching, disagreements are found in the literature. It is argued that incidental teaching of vocabulary is an effective technique because it is thought to help learners commit to memory the form-meaning connections of words in a contextualized manner (Day, Omura and Hiramatsu, 1991; Nagy, Herman and Anderson, 1985; Saragi, Nation and Meister, 1978). In many accounts of incidental vocabulary teaching, the way a previously unknown word is learned is described as incremental with each new meaning-focused encounter reinforcing learners' existing knowledge of that word. Since encountering a word occurs in its immediate context during incidental vocabulary teaching, it is usually assumed that it is also beneficial for learning various aspects of vocabulary knowledge such as word associations and the collocational properties of words. In the light of arguments for incidental vocabulary teaching, it is usually concluded that when a sufficient amount of exposure to language input is ensured, gains from incidental vocabulary teaching can be substantial. According to Horst, Cobb and Meara (1998) incidental vocabulary teaching helps learners "enrich their knowledge of the words they already know, increase lexical access speeds, and build network linkages between words" (p. 221). Exposure to language input during incidental vocabulary teaching typically occurs through reading. Therefore, extensive reading is thought to afford learners multiple exposures to lexical items as they are engaged in meaning-focused reading. In this regard, incidental vocabulary teaching accords with Krashen's (2003) *input hypothesis*, which underlines the importance of comprehensive input as the necessary and sufficient condition for

learning to occur. As already stated, incidental teaching of vocabulary occurs through repeated encounters with the word during meaning-focused reading. At this point, however, ambiguities arise regarding the number of encounters required for learning various aspects of words. The questions that can be raised in this regard are whether learning gains for various aspects of words are subject to different encounter frequencies. Specifically, does acquisition of the meaning of words requires different amounts of exposure than acquisition of word-forms or the collocational aspects of words? As one part of its research focus, the present study investigates the relationship between incidental teaching of the collocational properties of words and the development of knowledge of the formal and semantic aspects of collocations.

In addition to incidental vocabulary acquisition, another line of instructional thinking in research literature underlines the importance of word-focused tasks that are designed to teach words explicitly in minimal contexts. Explicit teaching of vocabulary is built on the assumption that during incidental exposure to words learners may fail to notice unknown words or simply choose to ignore them due to redundant contexts. It is further argued that for any significant learning gains to occur, learners need to do huge amounts of meaning-focused reading, a task which seems unfeasible for many learners. Moreover, the assumption that incidental vocabulary teaching is facilitative for learning many aspects of words, such as collocational relationships among words, is viewed with suspicion. This view is usually refuted on the grounds that collocational relationships of words do not prevent learners from understanding the message; as a result, collocations in texts are simply not attended to by learners during meaning-focused reading. Considering the limitations of incidental vocabulary teaching mentioned above and the arguments for the benefits of explicit teaching on development of vocabulary knowledge, studies focusing on the efficacy of explicit teaching of the collocations are needed. The present study attempts to compare explicit and incidental teaching of collocations and to reveal how the two types of instruction contribute to learning both the formal and semantic aspects of collocations.

In the present study, eight unfamiliar verb-noun collocations were taught to subjects in three instructional conditions. In the explicit teaching condition, target collocations were taught using collocation-focused activities that supplemented reading. Two groups were subjected to incidental learning conditions, where reading texts were modified and embedded with the target collocations providing contexts for incidental exposure to

collocations during meaning-focused reading. The role of input frequency in one incidental teaching condition was checked by increasing the number of texts read by the subjects in that treatment condition. More precisely, the subjects in one incidental teaching group encountered the target collocations in six reading texts while those in the other were assigned six additional texts (twelve texts in total). At a glance, the three instructional groups in the study were;

ETG: explicit teaching group

IT1: incidental teaching group

IT2: incidental teaching + input frequency group

In order to discover the effects of the three instructional conditions defined above, the study aimed to answer four research questions:

1. Which of the following instructional conditions result in better form recognition of target collocations?
 - i. explicit teaching
 - ii. incidental teaching
 - iii. incidental teaching + input frequency
2. Which of the following instructional conditions result in better meaning recognition of target collocations?
 - i. explicit teaching
 - ii. incidental teaching
 - iii. incidental teaching + input frequency
3. Which of the following instructional conditions result in better use of target collocations in a reading cloze test?
 - i. explicit teaching
 - ii. incidental teaching
 - iii. incidental teaching + input frequency

4. Are there any differences between the results of the immediate test and delayed post-test for the three instructional groups?

1.3. Objectives and Significance of the Study

The study aimed to examine the extent to which the formal and semantic aspects of verb + noun collocations are learned by Turkish adult intermediate learners exposed to target collocations in three different instructional conditions, i.e. (i) explicit teaching, (ii) incidental teaching and (iii) incidental teaching + input frequency. By investigating teaching of collocations in the three conditions, it is hoped that the study will contribute to our understanding of the instructional processes that might be conducive to the development of learners' knowledge on the formal and semantic aspects of collocations. The findings obtained from the study are also expected to add ultimately to the existing body of research on incidental and explicit vocabulary teaching, which to date has been concerned almost exclusively with the teaching of individual words. The results obtained from the study may answer some questions regarding the *how* and *why* of the treatment of collocations in instructional contexts and materials.

2. LITERATURE REVIEW

2.1. Introduction

The first part of the literature review section presents issues relevant to the definition of term ‘collocation’ and looks at how two main traditions vary in terms of how they define collocations. Following the definition of collocations within the two main approaches, the working definition of collocations in the present study is given. Subsequently, a brief discussion of various functions of collocations in language acquisition and processing is provided. In this regard, the question of why collocations are seen as a language resource as well as a stumbling block for second language learners is answered. Also, wider implications of collocational knowledge on various aspects of language competence such as native-like fluency and native-like selection are discussed. In the same section, a psycholinguistic account of collocational knowledge is considered in terms of chunking mechanisms. The first part of the literature review section concludes with a summary of studies on L2 learners’ collocational deficiencies. The second part of the review provides some theoretical background to incidental and explicit vocabulary teaching, two possible techniques in the teaching of collocational aspects of words. In this regard, some experimental studies on incidental and explicit vocabulary teaching are reviewed. The literature review section concludes with a review of studies on the teaching of collocations.

2.2. Collocations

Since collocations are difficult to define, the concept of collocation is studied under different names in the literature. As a result of the definitional differences, ambiguities arise regarding the types of word combinations that can be subsumed under the term ‘collocation’. Referring to the multiple interpretation of the term collocation in the literature, Fontenelle (1998) says “there does not seem to be any clear-cut, non-controversial definition of the term collocation” (p.191). In the following section, an account of this definitional divergence is given along with some details about various tools employed to define collocations within two main traditions.

2.2.1. Defining Collocations

Depending on research orientations, the term ‘collocation’ is defined differently. Researchers working within diverse research areas study collocations under different terminologies such as; chunks (De Cock, 2000), formulas (Wray, 2002), lexical phrases (Nattinger and DeCarrico, 1992), lexicalized stems (Pawley and Syder, 1983) to name but a few. Within the pedagogical, lexicographical and computational study of language, collocations are defined according to the need of the given field. For the purpose of illustrating multiple interpretations of the term collocation, Poulsen (2005) compiled five different definitions of the term ‘collocation’ in his review. Accordingly, the term ‘collocation’ has traditionally been used to define;

- the tendency for lexical items to co-occur in a text, or in a text corpus, whether or not they form a syntactic pattern
- the co-occurrence of lexical items in a syntactic pattern, only restricted by general selection restrictions (also referred to as ‘free/open collocation’, or ‘free/open combination’)
- the tendency for lexical items to co-occur in a syntactic pattern restricted not only by general selection restrictions, but also by usage restrictions on one element (often referred to as ‘restricted collocation’)
- the co-occurrence of lexical items in an unexpected, creative way that conflicts with general selection restrictions and/or usage restrictions (normally referred to as ‘creative combination’ rather than collocation)
- the tendency for a lexical item to co-occur with a preposition or grammatical structure such as an infinitive or clause (referred to as ‘grammatical collocation’ in contrast to ‘lexical collocation’)

(Poulsen, 2005, p.14)

A common thread running in each definition above is the tendency of certain words to occur frequently in close proximity to certain others. But the notion of ‘frequency of co-occurrence’ can only partially explain the collocational properties of words. Some unanswered questions still remain regarding the nature of collocations; especially, the question of whether any type of recurrent combination such as ‘tea spoon’, ‘strong tea’ or ‘my cup of tea’ could equally be considered as collocations based on the criterion of ‘frequency of co-occurrence’. Considering the complexities involved in describing all types of recurrent word combinations as collocations (as in the example above), it can be

said that the notion of ‘frequency of occurrence’ can only partially explain collocational phenomena in language.

In its attempt to explore the definition of the term ‘collocation’ in the related literature, the present study focuses on two major approaches to defining collocations i.e. *frequency-based tradition* and *phraseological tradition*. These two main traditions adopt different definitional criteria to account for the co-occurrence phenomena in language. In the frequency-based tradition, collocations are determined through the statistically-driven analysis of natural language. Two key criteria that are used to identify collocations in this tradition are; **proximity** (adjacency) of collocating words to each other and **frequency** of co-occurring word combinations in a given corpus. According to Sinclair (1991), one of the leading figures of the statistically-driven definition of collocations and the founder of the COBUILD project, a collocation is “the occurrence of two or more words within a short span of each other in a text” (p.170). Three operational terms fundamental to the definition of collocations in the frequency-based approach are; *node*, *collocate* and *span*. Here, a lexical item whose collocational relationship with other words is investigated is referred to as a *node*. The ‘other words’ that are found to co-occur within a certain distance to the node are called *collocates*. The distance of the number of words that lie between the node and the collocate is called the *span*.

The statistically-driven analysis of collocations involves extracting collocations from a corpus of natural language using special concordance programs. The basic procedure used to discover collocations from such corpus simply involves;

- selecting a lexical item as the node
- determining a span to the left and right side of the node (for example a limit of 3 or 4 intervening words)
- identifying the potential number of possible collocations appearing within a given span

However, not all words occurring within the given span of the node are readily considered collocates of the node. This is because a distinction is usually made between casual and significant collocations depending on the co-occurrence frequencies of words within a given corpus. In Sinclair, Susan, Robert and Ramesh (2004), only those co-occurrences which are relatively frequent in the corpus are considered collocations. They

pointed out that "A significant collocation is a regular collocation between items, such that they co-occur more often than their respective frequencies and the length of the text in which they appear would predict" (p. 10).

Identification of collocations through statistical means is criticized on several grounds. It is argued that frequency-based definitions of collocations are more helpful in identifying collocations in language than in explaining why collocations exist in language in the first place. Hoey (2005) cautions that relying on statistical procedures to explain collocational phenomena in language is inadequate as the notion of frequency of occurrence represents only one aspect of collocations. He states that explaining collocations simply through frequency-based analysis of natural language confuses the method with the goal. According to him, a collocation should be viewed as "a psychological association between words" which is merely "evidenced by their occurrence together in corpora more often than is explicable in terms of random distribution" (p. 3-5). Not satisfied with frequency-based definitions of collocations, scholars like Hoey subscribe to psychological definitions as in the phraseological tradition.

Unlike the frequency-based tradition, the phraseological tradition considers the semantic / syntactic characteristics of word combinations as well as substitutability (also termed as 'commutability') of their elements to define collocations. Cowie's (1981) definition is a typical example of how the phraseological tradition describes collocations. In his definition, a collocation is characterized as a frequent word combination with transparent meaning and relatively arbitrary restrictions in the selection of its elements. According to Aisenstadt (1979), word combinations can be idiomatic or non-idiomatic depending on their transparency of meaning. Idiomatic units are divided into two categories according to the absence/presence of arbitrary restrictions on the substitutability of their elements.

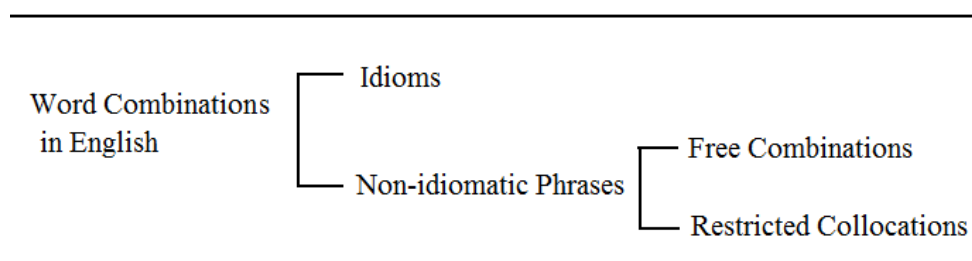


Figure 1. Aisenstadt's Definition of Collocations

The above categorization may also be thought of as a continuum where each category occupies a different point on the scale depending on the degree of semantic transparency and the commutability of the elements. Accordingly, the word combinations that exhibit the least and most commutability (substitutability) of their constituents and transparency of meaning respectively occupy the opposite ends of the collocational continuum. The following example reflects the collocational spectrum suggested by Howarth (1996) and Cowie (1981).

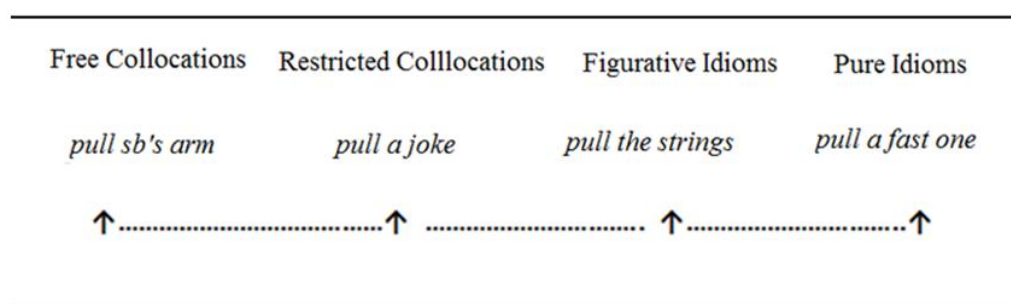


Figure 2. Collocational Continuum

As can be observed in the diagram, collocations are distinguished from free combinations at one end of the continuum and idioms at the other. It is usually argued that the boundaries between each category are not clear-cut. As a result of the fuzzy boundaries between categories on the continuum, the collocational property of a combination is usually considered a gradable quality. The nature of the four types of word combinations on the continuum above is neatly summarized by Nesselhauf (2003) as;

Free combinations (e.g. *drink tea*):

- the restriction on substitution can be specified on semantic grounds [i.e. you can substitute *tea* by *coffee*, *water*, *juice*, etc.]
- all elements of the word combination are used in a literal sense

Restricted collocations (e.g. *perform a task*):

- some substitution is possible, but there are arbitrary limitations on substitution [e.g. you can also say *do a task*, but not *make a task*]
- at least one element has a non-literal meaning, and at least one element is used in its literal sense; the whole combination is transparent

Figurative idioms (e.g. *do a U-turn*, in the sense of “*completely change one’s policy or behavior*”):

- substitution of the elements is seldom possible
- the combination has a figurative meaning, but preserves a current literal interpretation

Pure idioms (e.g. *blow the gaff*):

- substitution of the elements is impossible
- the combination has a figurative meaning and does not preserve a current literal interpretation

(Nasselhauf, 2003, p.14)

As explained above, the frequency-based and phraseological traditions differ in terms of how they define and classify collocations. In the former, all statistically significant, frequent co-occurrences are classified as collocations. However, in the latter, collocations are viewed as psychologically salient word combinations that are bound together to convey a particular meaning (Benson et al., 1986). The following example helps to illustrate how the two traditions define collocations differently. In the example, all four frequent combinations involving the node word ‘drop’ are considered collocations in the frequency-based tradition as long as they are found to occur frequently within a span of four words to the left or right of the node word. However, the combination ‘drop a cellphone’ (4) is not regarded as a collocation in the restricted sense in the phraseological tradition. It is defined as a free combination because its constituents combine freely without conveying any specialized meaning.

				<u>Frequency-based</u>	<u>Phraseological</u>
drop	—	a charge	(1)	Collocation	Collocation
	—	a case	(2)	Collocation	Collocation
	—	a line	(3)	Collocation	Collocation
	—	a cellphone	(4)	Collocation	Free combination

Figure 3. An Example for Collocations in Two Main Traditions

As previously mentioned, semantic specialization of the meaning of a collocation is an important consideration in the phraseological tradition. In the example above, the word combinations in (1), (2) and (3) show semantic specialization, and therefore they differ from the combination in (4) based on the criterion of semantic specialization. Similarly, the word ‘carry’ may combine with numerous nouns (e.g. carry a book/bag/chair/table/etc.) when it means “taking something from one place to another”. However, when it combines with a few possible nouns such as

conviction/persuasion/weight, it specifically means “being convincing” or “winning the argument” (Aisenstadt 1979, p. 72).

To sum up the definitions of collocations in the two major traditions, it could be said that to define collocations according to only statistical significance as in the frequency based tradition disregards the psychological phenomenon, thereby superficially treating collocations as mere statistically significant combinations that are found to co-occur frequently in a given corpus. Unlike the frequency-based tradition, the phraseological tradition underscores the semantic and syntactic properties of collocations as the main criteria for definition. Owing to this property, studies focusing on the pedagogical aspects of collocations usually draw on descriptive frameworks offered within the phraseological tradition.

2.2.1.1. Definition of Collocations in the Study

The present study regards collocations mainly as a kind of lexical relationship between words which is subject to arbitrariness arising from common usage rather than syntactic rules. The relationship between the constituents of a collocation serves a semantic purpose in that both the base and the bound constituent(s) combine to carry a specific meaning. When the bound constituent is replaced with a synonym, the meaning of the collocational unit is affected. Hence, the working definition of collocations here is basically in keeping with the definitional framework suggested by Cowie (1981), Howarth, (1998) and Mel’cuk (1998), who work within the phraseological tradition.

To restate the definition above, we can say that a collocation is a word combination consisting of at least two elements, one of which (the base) is freely chosen on the basis of its (literal) meaning while the selection of the other element (collocator) depends on this freely chosen element. The meaning of one constituent in a collocation remains intact but that of other is contingent on the first. Thus, a collocation remains restricted in terms of its combinability and specialized meaning. In the example ‘strong argument’, the word ‘argument’ determines the selection of the word ‘strong’ and of the two seemingly synonymous words ‘powerful’ and ‘strong’, only the latter is selected arbitrarily by the word ‘argument’. Here, the selection of the word ‘strong’ rather than ‘powerful’ by the base word ‘argument’ is not necessarily restricted by syntactic rules but rather by conventional usage in language.

Such definitional criteria are in agreement with those provided by Mel'čuk (1998), who defines collocations as word combinations involving two lexical items, one of which is selected arbitrarily by the other lexical item to convey a particular meaning. According to him, the combination 'do a favor' is a good example of a collocation; because the word 'favor' is selected on the basis of its meaning, and 'do' is selected arbitrarily by the word 'favor'. The selection of 'do' by the word 'favor' is arbitrary in that no plausible reason exists as to why the word 'do' rather than 'make' or 'give' is selected to accompany the word 'favor'.

Along the lines of the phraseological tradition, the present study also maintains a distinction between collocations (restricted), free combinations (also called open collocations) and idioms. The selection of both elements in free combinations is governed by the literal meaning of both constituents. However, in restricted collocations arbitrary selectional restrictions are imposed by the base word in the combination. In this regard, it could be said that the combination 'pay the bill' is a free combination while 'pay heed' is a restricted collocation. This is because the word 'heed' in the collocation 'pay heed' imposes arbitrary restrictions when combining with other elements but the elements in the combination 'pay the bill' combine freely and do not impose arbitrary selectional restrictions. Since free combinations are semantically-motivated, selection of words in the combination is based on their literal meaning only. In other words, the elements in a free combination can combine with any other words depending on their (literal) meaning. For example, the word combinations below are all free combinations based on the criteria mentioned;

pay **the cost/service/tax**

receive/hand/send the bill

Unlike the free combinations above, the combination 'foot the bill' is a collocation in a restricted sense because the selection of the word 'foot' depends on the word 'the bill'. By virtue of such selectional restrictions imposed by the base element in a collocation, they are distinguished from free combinations.

In this study, collocations are distinguished from idioms based on the criterion of transparency of meaning. Since an idiom has a non-transparent meaning which cannot readily be derived from the individual meaning of each element, it differs from collocations whose meaning is relatively transparent and deducible from its elements (Howarth, 1998). According Aisenstadt (1979), word combinations like ‘face the facts’, ‘face the truth’, ‘face the problem’, ‘face the circumstances’ are all regarded as collocations because the meaning of each combination is composed of its elements. On the contrary, ‘face the music’ is considered an idiom because the individual meaning of the elements in the idiom doesn’t reflect the whole meaning. In the Longman Dictionary of Contemporary English ‘face the music’ is defined as ‘to accept criticism or punishment for something you have done’ but that meaning is not immediately deducible from the individual meaning of the elements in the combination. Based on the points above, we maintain the distinction between idiomatic combinations and collocations in the study.

When considering the working definition of collocations (in the restricted sense) in the study, it should be interpreted with a caveat in mind. Regarding the issue of substitutability of the constituents of a collocation, it is possible to say that even restricted collocations may allow some degree of substitutability at two points. According to Aisenstadt (1979), two sub-types of restricted collocations can be identified which may allow a certain degree of commutability of the elements. Examples of such collocations can be observed below.

- a) Restricted collocation allowing some variations at two points:

cover/meet a cost

cover **a cost/an expense**

- b) Restricted collocations allowing variation at one point:

heavy **burden/demands/pressure**

take/have/play a part

As can be seen in the example above, restricted collocations are not entirely fixed and they can show variations at either point without losing their restrictedness. The working definition of collocations explained in the preceding paragraphs will help us in the selection of the target collocations during the experimentation stage of the study.

2.2.2. Significance of Collocations

It has been suggested that an important part of the native speaker's linguistic competence consists of large number of ready-made chunks such as collocations and other formulaic language (Wray, 2002; Schmitt, 2004; Pawley and Syder, 1983). Corpus studies indicate that a large part of spoken and written language is composed of various types of frequent word combinations (Sinclair, 1991; Stubbs, 2001; Biber et al., 2004). For example, based on his corpus study of collocations in English, Altenberg (1991) concluded that "roughly 70 % of running words in the corpus form part of recurrent word combinations of some kind" (p.128).

Considering the pervasive nature of conventionalized language forms such as collocations and other set phrases in language use, Sinclair (1991) argued that language use is driven mostly by the 'idiom principle' rather than the 'open-choice principle'. According to the 'idiom principle' language production is governed more by conventions of usage rather than an underlying system of grammar. As Sinclair (1991) explained;

[...] a language user has available to him or her a large number of semi-preconstructed phrases that constitute single choices, even though they might appear to be analyzable into segments.

(Sinclair, 1991, p.110)

The idiom principle has implications for language performance and its usage. In an influential article called *Nativelike Selection and Nativelike Proficiency: Two Puzzles for Linguistic Theory*, Payley and Syder (1983) emphasized the relationship between 'nativelike selection/fluency' and collocational competence. They described nativelike selection as "the ability of the native speaker routinely to convey his meaning by an expression that is not only grammatical but also nativelike". They defined nativelike fluency as "the native speaker's ability to produce fluent stretches of spontaneous connected discourse" (p. 191). Payley and Syder acknowledged the significance of acquisition of different types of phraseological units (such as collocations) as an important step in overcoming the challenges of nativelike selection and nativelike proficiency.

The significance of collocations and other recurrent combinations is further underscored within psycholinguistic accounts of language acquisition and processing. In psycholinguistic models of language processing, it is suggested that the human brain is tuned to organizing information in the form of chunks. Newell as cited in Nick Ellis (2003) suggested that;

A chunk is a unit of memory organization, formed by bringing together a set of already formed chunks in the memory and welding them together into a larger unit. Chunking appears to be a ubiquitous feature of human memory.

(Ellis, 2003, p.76)

Research evidence from psycholinguistic studies shows that memorizing draws less on a limited pool of cognitive resources than processing. When language users avail themselves of large numbers of prefabricated units in their speech they can economize on the processing effort and produce fluent language (Aitchison, 1987; Fillmore, 1979; Pawley and Syder, 1983). Studies have shown that fluent language production correlates with the size of language users' repertoire of prefabricated language forms (Dechert 1983; Towell and Hawkins 1996). This correlation is usually explained by storage and retrieval of recurrent word combinations in the form of lexical chunks, which allow speakers to combine words holistically by exploiting sequential dependencies between words. For example, familiar collocations like 'wear a perfume', 'go on a diet', 'put on the brakes', 'tooth decay', 'start the car' are committed to memory as chunks and language users don't have to combine such combinations creatively when speaking. This type of automatic processing is believed to allow language users to economize effort and overcome their memory limitations when processing language in a nativelike fashion.

The pervasiveness and significance of conventionalized language forms in language has implications for instructed second language too. Scholars in the field of instructed language learning agree that collocations along with other types of set-phrases should be integrated into instructional practice (Bahns & Eldaw, 1993; Cowie, 1988; McCarthy, 1990; Nation, 2001). Some scholars in the field have proposed instructional approaches designed around teaching conventionalized lexical chunks within instructed SLA contexts. Nattinger and DeCarrico (1992) and Lewis (1993) are two leading proponents of this pedagogical approach. They suggested that SLA instruction should promote learners' incremental accumulation and use of collocations and other fixed phrases in

language. They argued that conventionalized lexical chunks should be an important part of instructional focus in SLA as they underlie many aspects of language competence.

Although there are many views in the field as to the importance of collocations in learning L2, investigation of learners' knowledge of collocations demonstrate that learners experience difficulties learning them. A review of studies conducted on L2 learners' knowledge of collocations is provided in the following section.

2.2.3. Collocational Deficiencies in L2 Learners' Interlanguage

A number of studies in the literature investigated L2 learners' knowledge of L2 collocations. Some of the studies specifically investigated different types of collocational errors while others attempted to reveal any correlation between proficiency and knowledge of collocations. In the following section, a number of widely cited studies, including two studies conducted in the contexts of Turkish as L1 learners of English, are reviewed.

In a widely cited study in the literature, Bahns and Eldaw (1993) examined German subjects' knowledge of fifteen English verb-noun collocations using German-English translation tasks and gap-filling tests. They found that learners' collocation deficiencies presented major problems to advanced level learners and that level of lexical attainment didn't necessarily predict a corresponding level of collocational knowledge.

In a study with a somewhat similar design, Farghal & Obiedat (1995) tested collocational competence of Arab subjects by means of L1-L2 translations and gap-filling tests containing 22 common English collocations. They found that the Arab subjects were not able to provide English equivalents of certain collocations, and they resorted to strategies such as synonymy, avoidance, L1 transfer and paraphrasing to compensate for their lack of knowledge.

Nesselhauf (2003) analyzed German as L1 subjects' productions of English verb + noun collocations. The argumentative essays written by university level students were checked in terms of learners' accurate production of collocations. In the essays three types of verb + noun combinations were identified including free combinations, restricted collocations

and idiomatic expressions. More than 2000 instances of verb+ noun collocations were found in the essays. Acceptability of the collocations was first checked in the British National Corpus and then assessed by native speakers. Analysis of collocations produced by subjects in the essays revealed that around 25% of collocations were not used accurately by the subjects and that the number of collocational errors in the selection of the correct verb was particularly high.

Howarth's (1998) study involving an analysis of verb + noun collocations in a corpus of advanced learners' academic writings and native speaker data demonstrated that learners' use of restricted collocations is much less limited than that of native speakers'. More precisely, non-native speakers were observed to have used more free combinations (67% vs. 60%) but fewer collocations (%25 vs. %36) than native speakers in their productions. The study also found that the general level of language proficiency did not indicate a corresponding level of productive knowledge of collocations.

The relationship between proficiency and L2 learners' knowledge of collocations was also studied by Gitsaki (1999). In her study involving 275 subjects with Greek as their L1, she examined whether there exists a developmental pattern of collocations across and within three proficiency levels (post-beginners, intermediate, and post-intermediate). For this purpose, she analyzed essays written by L1 Greek learners of English and additionally used a cloze test and a translation test. Unlike Howarth's study, the results from her study revealed that the subjects' knowledge of collocations correlated with their language level.

Keshavarz & Salimi (2007) conducted a study to find out whether differences in collocational patterns between Persian and English affect L1 Persian subjects' knowledge of English collocations. To this end, they used a multiple-choice collocation test containing frequent English collocations. The major finding from that study was that collocational differences between the L1 and the L2 were a challenge for Persian speaking subjects. As regards the relationship between a knowledge of collocations and proficiency, their study found that relatively high-proficient subjects exhibited higher collocational knowledge than lower proficiency subjects, which is in keeping with the finding from Gitsaki's (1999) study above.

Adopting a statistically-oriented approach to defining collocations, Durrant and Schmitt (2009) compared the use of collocations in non-native texts against those in native texts. The texts were written by two groups of learners; postgraduate students at a British university; and first-year undergraduates at an English-medium university in Turkey. The subjects' writings were analyzed in order to detect their use of premodifier+noun combinations such as adjective+noun and noun+noun combinations in their writings. In order to verify the collocational strength of the combinations detected, the researchers used the British National Corpus. They found that native writers used more low-frequency combinations than non-natives and non-natives were more inclined to overuse certain strong collocations.

In another study involving Turkish learners, Eker (2001) examined the collocational development of 43 ELT majors at a Turkish university over a two year period. As raw data, essays written in sit-in exams for writing courses were used. In the writings, the use of various types of lexical collocations (such as adjective+noun and verb+noun) was recorded. The resulting collocations were analyzed in terms of type, signs of first language transfer and congruency between Turkish and English. The study found that subjects used progressively fewer collocations in their writings. The study also showed that collocations which differed from their Turkish equivalents were fewer in number than those collocations which were congruent in the two languages.

From the analysis of the studies above, it can be concluded that collocational errors characterize many L2 learners' interlanguage and affect their competence in using the target language. The studies also demonstrate that knowledge of collocations correlates with many aspects of language knowledge. Considering L2 learners' deficiencies in using collocations and the benefits of a good working knowledge of them, it becomes evident that instructional intervention to teach collocations might be necessary.

2.2.4. Instructional Focus on L2 Collocations

Nation (1990) proposed four different types of knowledge required for successful acquisition of a lexical item. According to Nation, L2 learners need to acquire knowledge about the form, meaning, function and position of a word. Here, form refers to knowing the orthographic and phonetic representation of a word; meaning refers to the knowledge

of the related concepts denoted by the form; and function refers to knowing how and where to use a word appropriately. The last aspect of vocabulary knowledge i.e. knowing about position of a word refers to being aware of the lexico-syntactic patterns in which a word tends to occur. This type of vocabulary knowledge entails having a ‘feel’ for the collocational aspects of vocabulary items. In vocabulary teaching literature, it is usually conceded that some aspects of lexical knowledge such as form and meaning are given prominence while others are deemphasized. As a result of this bias, learners’ acquisition of collocational properties of L2 words still remains a neglected aspect of lexical knowledge in instructed language contexts. Benson and Ilson (1997) acknowledge this neglect and suggest;

Learners of English as a foreign or second language, like learners of any language, have traditionally devoted themselves to mastering words-their pronunciation, form and meanings. However, if they wish to acquire active mastery of English, that is, if they wish to be able to express themselves fluently and accurately in speech and writing, they must learn to cope with the combination of words into phrases, sentence and texts.

(Benson and Ilson, 1997, p. ix)

Scholars in the field of instructed language learning are gradually recognizing the significance of learners’ knowledge of collocational relationships. Some have even attempted to integrate teaching of the collocational aspects of words to second language instruction. Nattinger (1988), for example, argued that the meaning of a lexical item is inextricably linked with the collocational pattern in which it tends to occur and further claimed “the whole notion of collocations is extremely important for acquiring vocabulary and has yet to be exploited to its full potential” (p.70). Similarly, Lewis (2000) lent support to teaching L2 words in lexical chunks. He suggested that instructional practice should center on helping learners develop their knowledge of the collocational properties of lexical items. He further pointed out;

[....] given the present stage of our knowledge of acquisition, it is likely to be helpful to make learners explicitly aware of the lexical nature of language ... this means helping learners develop an understanding of the kinds of chunks found in the texts they meet.

(Lewis, 2000, p. 161)

Based on her analysis of collocational errors characterizing learners' written performance, Nesselhauf (2003) suggested that teaching practice should also include drawing learners' explicit attention to collocations in the input and raising learners' awareness of L2 collocations. Lewis (2000) also emphasized the importance of raising learners' awareness of collocations and suggested that learners should be encouraged to learn vocabulary by keeping record of what other words keeps company with a word rather than learning words in isolation. Even researchers like N. Ellis (1997), who ascribes much of language acquisition to implicit learning mechanisms, acknowledges the potential benefits of bringing learners' focal attention to collocations in language. He claims that acquisition of collocations can be facilitated by making collocational patterns more salient through direct instruction or consciousness-raising tasks.

Although suggestions exist as to the benefits of focusing on collocations in instructed language contexts, efficacy of teaching collocations has yet to be empirically investigated. There exists a large body of research investigating the extent of learners' knowledge of collocations which seeks to describe how collocations are used by language learners. However, there are very few published studies that actually investigate the issue of how collocations can be most effectively taught in instructed language. In the following section explicit and incidental teaching of vocabulary are discussed as two instructional techniques that can be adopted to teach collocational aspects of words.

2.3. Explicit and Incidental Teaching of Vocabulary

Two questions that are extensively investigated in L2 vocabulary teaching research are whether meaning-focused activities alone can contribute to vocabulary learning or whether they should be supplemented with word-focused activities. In the literature, meaning-focused vocabulary teaching is usually investigated in 'incidental' vocabulary acquisition studies. Those studies attempt to explore the extent to which exclusively meaning-focused attention can actually help learners to commit form-meaning connections of new words to memory. Incidental vocabulary teaching is often contrasted with explicit (word-focused) vocabulary teaching in which learners' conscious attention is drawn to lexical items. Hence, incidental and explicit teaching of L2 vocabulary are distinguished from each other depending on the presence of learners' conscious attention to lexical items in the input during language processing. Unlike explicit vocabulary

teaching, lexical gains in incidental learning are regarded as the by-product of processing language for meaning.

There are proponents of both incidental and explicit instruction of vocabulary in the literature. Supporters of incidental vocabulary teaching base their argument on the fact that the large vocabulary of native speakers can only be obtained incidentally because it is not possible for them to explicitly acquire huge number of lexical items in their native language (Nagy and Anderson, 1985). This claim is further supported by Krashen (1989) in his *Input Hypothesis*. He claimed that the second language is acquired by a learners' focusing on the message rather on the form of the message. As Krashen (1989) pointed out;

Language is subconsciously acquired - while you are acquiring, you don't know you are acquiring; your conscious focus is on the message, not form. Thus, the acquisition process is identical to what had been termed 'incidental learning.' Also acquired knowledge is represented subconsciously in the brain - it is what Chomsky has termed 'tacit knowledge'.

(Krashen, 1989, p. 440)

Some researchers argue for a balance between incidental and explicit vocabulary instruction. They attribute acquisition of various aspects of vocabulary knowledge to both the incidental and explicit learning of lexical items. For example, Nation (1990) claims that the form of a word, its collocational relations with other words and parts of speech are learned incidentally, while its semantic properties such as nuances of meaning and semantic relations shared with other words is best learned explicitly. It is also argued that incidental vocabulary instruction can be combined with explicit teaching. For example, Paribakht and Wesche (1993) argued that meaning-focused vocabulary learning through reading is effective but when it is supplemented with word-focused tasks the result is much better. Similarly, Stoller and Grabe (1993) claimed that gains from incidental vocabulary learning can be increased by supplementary word-focused activities involving learners' conscious attention to target words.

Learners' success in acquiring vocabulary through meaning-focused (incidental) and word-focused tasks is usually explained in terms of the cognitive and attentional components involved in learners' processing of L2 lexical items. In the following section,

theoretical discussions are provided regarding the components of vocabulary acquisition in incidental and explicit vocabulary learning in L2.

2.3.1. Theoretical Framework for Incidental and Explicit Vocabulary Teaching

In Peters, Hulstijn, Sercu and Lutjeharms, (2009) it was claimed that the acquisition of a previously unknown lexical item is contingent on three factors. First, the meaning of an unfamiliar word needs to be discovered by a learner. Second, elaborate processing of various aspects of the lexical information should occur. Third, the form-meaning connections of the word should be consolidated through repeated encounters with the word. In the three stages of vocabulary acquisition above, it is thought that the cognitive operations undertaken by a learner determine the retention of a newly encountered lexical item. In the following section, the first and second components of vocabulary acquisition are explained in theoretical terms.

In second language vocabulary acquisition literature, the learning of a previously unknown word is usually explained through the notions of *depth of processing* (Craik & Lockhart, 1972), *elaboration* (Craik & Tulving, 1975) and the *Involvement Load Hypothesis* (Hulstijn and Laufer, 2001). A common thread running through all these notions is that whether or not an unfamiliar word will be committed to memory is conditional upon the amount of cognitive involvement invested by a learner in processing the unknown word. According to the depth of processing model, a word can be shallowly or deeply processed depending on the task requirements. For example, Craik and Lockhart (1972) claim that various aspects of vocabulary knowledge are processed at various processing depths. It is argued that while the phonological and orthographical aspects of a word are processed at a shallow level, the semantic aspect is processed at a deeper level. The depth of processing model was later refined by Craik and Tulving (1975) and supplemented by the notion of *elaboration*, a term used to refer to the richness with which new information is encoded in memory. Hulstijn and Laufer (2001) proposed that the notions of both *depth of processing* and its refined version *elaboration* can be replaced by *involvement load hypothesis* because they claimed that the two notions did not adequately specify the degree of cognitive involvement entailed in *deep* and *shallow processing* of a newly encountered word. They argued that *the depth of processing* model lacks definite criteria by which tasks can be graded according to the level of processing invested by learners in them. Nevertheless, despite definitional weaknesses, scholars still

concur with the notion that more elaborate processing of a lexical item leaves better memory traces than less elaborate processing. As Hulstijn (2001) puts it;

Processing new lexical information more elaborately (e.g., by paying attention to the word's pronunciation, orthography, grammatical category, meaning and semantic relation to other words) will lead to higher retention than by processing new lexical information less elaborately (e.g., by paying attention to only one or two of these dimensions). This is true not only for intentional but also for incidental learning. Thus, incidental learning will be more successful with more than with less elaborate processing.

(Hulstijn, 2001, p. 270)

In their own interpretations of the notion of *depth of processing* in vocabulary acquisition, Hulstijn and Laufer (2001) formulated the cognitive-motivational model of the *involvement load hypothesis*, which involves three components i.e. *need*, *search* and *evaluation*. *Need* is the motivational component referring to learner-generated attempts to understand the meaning of an unfamiliar word while the language is processed to communicative ends. According to Hulstijn and Laufer, *need* can be moderate when externally motivated but is stronger when internally motivated by the learner's own initiative. *Search* and *evaluation* are the cognitive components of the involvement load hypothesis. *Search* involves the learner's conscious attempt to find the meaning of a new word while *evaluation* defines the assessment of the meaning of the word in terms of the context in which the word appears. For example, when a learner encounters the unfamiliar word 'dirt' in a context and feels an inner drive to learn the meaning of that word, he could be said to have experienced the *need*. If this drive prompts him to look the word up in a dictionary or some other resource, we can say that *search* component is activated. Once the meaning is found, it may not readily fit the context in which it appears because the word 'dirt' in that particular context may have the meaning of 'earth', rather than 'unclean substance'. If the learner successfully discovers that 'dirt' in this context actually means 'earth', it could be said that the last component of the involvement load hypothesis (i.e. evaluation) is present. Given that learner has gone through all three stages of the involvement load hypothesis, we can expect acquisition to occur.

Schmitt and Schmitt (1995) lend support to the notions of *depth of processing* and *involvement load hypothesis* in saying that "mental activities which require more elaborate thought, manipulation, or processing of a new word will help in the learning of that word" (p.135). In instructional terms, this means that when the meaning of an

unfamiliar word is inferred from context it is more likely to be retained by learner than when it is explained by teacher. Since inferring entails more elaborate mental processing invested in unlocking the meaning of a word, the learning effect resulting from it is expected to be better and long lasting. Empirical evidence for the depth of processing and involvement load hypothesis is provided in many vocabulary retention studies. For example, Hulstijn (1992) showed that learners could better retain words whose meanings they correctly inferred during a reading task those than those explained to them by synonyms. Based on the finding from their studies Cho & Krashen (1994) and Knight (1994) claimed that words looked up in a dictionary during a reading task are remembered better than words that are not.

At the beginning of this section, it was suggested that three stages are essential for successfully acquiring a word. Of those, the first and second emphasized the importance of discovering the meaning of a previously unknown word and the elaboration of its meaning. They were explained above in terms of the notions of depth of processing and involvement load hypothesis. The third stage, repeated encounter with an unknown word, was argued to be necessary for learners to reinforce the form-meaning connections of that word. According to the *cumulative gain assumption* suggested by Laufer (2003), multiple opportunities to encounter a new word in a range of meaningful contexts help learners to incrementally learn that word. This means that numerous occurrences of the word must be available in the input to ensure that a learner can repeatedly encounter that word. Gass (1999) stated that repeated exposure to a word in a variety of contexts is extremely important for reinforcing the knowledge of the meaning of a word; “it is gradual and incremental, requiring repeated exposure to the same words in various collocations and in various situations” (p. 139). Similarly, Paribakht and Wesche (2000) argued that successive encounters with a particular word in diverse contexts help a lexical entry to ‘*mature*’ in the learner’s mental lexicon.

There is no denying that incidental vocabulary acquisition assists the process of lexical development. However, some vocabulary acquisition researchers advance the argument that lexical attainment in incidental vocabulary learning is incremental and sometimes unpredictable. For example, Swanborn and De Glopper (1999) showed that students learn around 15% of the unknown words encountered during incidental teaching of vocabulary. Similar findings lead some scholars to maintain that the amount of vocabulary gain from

incidental learning is rather modest when compared with more explicit means of teaching vocabulary (Laufer, 2001). According to that line of thought, reading tasks, when supplemented with word-focused tasks would lead to more vocabulary gains (Hulstijn, 1992; Stoller and Grabe, 1993; Paribakht and Wesche, 1997; Nation and Waring, 1997; Schmitt and McCarthy, 1997; Zimmerman, 1997; Laufer, 2005; Schmitt, 2008). Several reasons are mentioned for this. First, during the process of reading for meaning learners may not take notice of unknown vocabulary or simply choose to ignore unknown words in the text owing to redundant contexts. Second, while some words can easily be inferred from ‘pregnant’ contexts, others may be too difficult for learners to infer meaning from contexts that may be not conducive for correct guessing. Due to problems associated with incidental vocabulary acquisition, some scholars suggest explicit teaching activities that supplement reading tasks. Paribakht and Wesche (1993), for example, claimed that encountering words in reading contexts is beneficial but if reading is supplemented with explicit instruction, learners’ vocabulary gain is likely to be superior to the reading only condition. Similarly, Laufer (2001) stated that “Whatever the importance of reading as an educational activity and as a means of exposure to vocabulary, as far as incidental vocabulary acquisition is concerned, there is evidence for the superiority of word-oriented tasks over reading” (p.46).

2.3.1.1. Attention in Vocabulary Teaching

When arguments for incidental and explicit learning of vocabulary are considered, the discussions on the subject ultimately come down to the role of attention in learning new words. According to Schmidt (1990), attention is the necessary component of explicit learning but it may also be both necessary and sufficient in implicit learning conditions where no learner-generated attention is allocated to a particular word. Along similar lines, Gass (1988) stated that some level of noticing novel input features is a necessary condition for new learning to occur. She says that noticing may involve focal or peripheral attention, but it doesn’t necessarily have to involve learners’ conscious attention to those features of input.

In terms of vocabulary acquisition, it appears that the degree of attention in vocabulary learning is closely related with the degree of elaboration (or depth of processing) with which a newly encountered lexical item is processed. Whether it is lexical form, meaning or collocational relationships with other words, the degree of attention invested by the

learner to acquire these features is thought to determine the likelihood of their retention. In Hulstijn & Laufer (2001) the role of attention in vocabulary learning is neatly summarized as;

[...] the more attention that is paid to the formal and semantic aspects of words and the richer associations that are made with existing knowledge (e.g. in the form of establishing similarities and contrasts between old and new information), the higher are the chances that the new information will be retained.

(Hulstijn & Laufer, 2001, p.1)

It is claimed that various aspects of lexical knowledge are acquired with peripheral or focal attention to these aspects of words. For example, Ellis (1994) argued that acquisition of phonological, orthographic and collocational features of words are more likely to be acquired through peripheral attention (implicitly) as a function of frequency of input during meaning-focused tasks. He also argued that the acquisition of semantic aspects of words is more likely to happen through focal attention to the semantic features of those words.

2.3.2. Research on Incidental and Explicit Vocabulary Teaching

In three related studies Laufer (2003) compared explicit vocabulary teaching activities with incidental teaching conditions. In the first study, subjects in the incidental teaching group encountered 10 target words as they read a text with the help of L1 marginal glosses and answered comprehension questions. The subjects in the explicit teaching group were given 10 sentences and asked to write sentences using the words. In the immediate and delayed retention tests, both groups were asked to provide the meaning of the target words either in L1 or L2. It was found that the sentence writing group outperformed the reading group. In the second study, the incidental teaching condition was compared with a composition writing group. The subjects in the former group read texts that contained target lexical items while those in the latter group wrote a letter using words whose translation equivalents were supplied to them. Comparison of the retention scores of the two groups showed that the composition writing group had significantly better results than the incidental teaching group. In the third study, three different vocabulary teaching techniques were compared. Subjects in three treatment groups were assigned three different tasks. The first group completed reading comprehension tasks by looking up the meaning of unfamiliar words in their bilingual dictionaries when

necessary. Subjects in the second group wrote sentences with target collocations whose translation equivalents were provided. Subjects in the third group were asked to supply the correct words for gaps in ten sentences. Comparison of the results of the immediate and delayed retention tests showed that the reading comprehension group retained fewer words than the other two groups. The results of the delayed retention test showed that the 'sentence completion' group retained more words than the 'sentence writing group'.

One important consideration which figures prominently in incidental vocabulary learning studies is the type and frequency of learners' exposure to novel words. Regarding frequency of learners' exposure to lexical items in incidental learning conditions, it is usually pointed out that in order to ensure acquisition of a word, learners need to be exposed to the target word on multiple occasions. Although most vocabulary researchers agree that frequency of encountering a particular lexical item assumes a crucial role in acquiring a word incidentally, they report different encounter frequencies needed for learners' retention of a lexical item. In the following section, some of those incidental vocabulary acquisition studies are reviewed in which input frequency was also included as an additional variable in their study design.

In a widely cited study by Pitts, White and Krashen (1989), seventy-five intermediate adult ESL learners in various school contexts in the US were tested to reveal the effects of learning words in two incidental vocabulary learning conditions. The subjects in two treatment groups and a control group were exposed to the unfamiliar '*nadsat*' words (kind of slang language of Russian origin) in different incidental learning conditions. The subjects in Treatment Group One were asked to read chapters from a book entitled *A Clockwork Orange*. Those in Group Two first watched two scenes from the film version of the story and read the rest of the chapter from the book. The subjects in the control group didn't watch any scenes from the film, nor did they read chapters from the book but they took the same vocabulary tests as the two treatment groups. Following the treatment stage the subjects took the *nadsat* vocabulary test. The study found that subjects in the two treatment conditions acquired novel words by reading or watching the story. The percentage of the scores in the vocabulary tests was 6.4% for Group One, and 8.1% for Group Two. This result, according to the researchers, shows that incidental learning does lead to modest but significant gains in vocabulary. In interpreting the results from the study, a failure in the study design needs to be mentioned though; the

subjects in each group were selected from a particular teaching institution. Rather than randomly sampling subjects from the total sum of the study population, each group comprised students from a certain school population, which almost certainly affected the results especially between the two treatment conditions.

In an incidental vocabulary acquisition study, Day, Omura and Hiramatsu (1991) measured subjects' vocabulary gains from silent reading of an adapted story, which contained 17 target vocabulary items that frequently occurred in the text. The subjects of the study were selected from a high school and a university in Japan. Subjects were randomly assigned to treatment and control groups. The subjects in the treatment group were asked to read the story silently and given a 17 item multiple-choice vocabulary test. The control group subjects did not participate in the treatments and were only given the test. Comparisons of the two groups' scores from the vocabulary test showed that the treatment group's subjects outperformed those of the control group. This means that "exposure to previously unknown or difficult words through sustained reading for entertainment by Japanese EFL students has a positive effect on their ability to recognize these words in a vocabulary test" (Day et al., p. 545).

In another incidental vocabulary acquisition study, Horst, Cobb and Meara (1998) investigated whether reading a simplified reader leads to vocabulary gains in 34 subjects who were students at a university intensive language program in Oman. A total of 45 words were selected from different frequency bands. The target words occurred in the text at least two times. Subjects' prior knowledge of the target words was tested using a pre-test. After a time lapse of two weeks, the subjects were exposed to the material as they simultaneously read and listened to the texts in six classroom sessions. During the treatment sessions no opportunity was afforded to subjects to look up the meaning of any words in the texts. Following the treatment, Nation's (1990) Vocabulary Levels Test and post-test were administered to the subjects in order to identify their vocabulary profiles and to find any relationship between vocabulary gains from reading and level of vocabulary knowledge. Comparisons of the pre-test and post-test results showed that the overall gain from incidental reading was 5/45 words, which means that on average, out of five unknown words only one could be learned from incidental learning. Based on this finding, the researchers concluded that "small but substantial amounts of incidental vocabulary learning can occur as a result of reading a simplified novel" (p.214).

In an incidental vocabulary acquisition study, Rott (1999) investigated the role of frequency of exposure on the retention of vocabulary items. Ninety-five English L1 learners of German were exposed to target vocabulary during reading for comprehension. Frequency of exposure to the target words was controlled for three treatment groups. Depending on the treatment group, subjects were exposed to the target words two, four or six times. Vocabulary recognition and production tests measured subjects' different levels of word knowledge. The results from the immediate retention test showed that the incidental acquisition of target words did occur albeit with various retention levels. As for long-term retention, the researcher found that nearly all subjects retained a significant amount of receptive vocabulary knowledge over one month. However, nearly half of the subjects could not retain their productive knowledge of the target words in the long term. The effects of exposure frequency on receptive and productive word gains was found minimal for subjects who were exposed to unfamiliar words two and four times during reading. The subjects who were exposed to the target words six times demonstrated significantly more receptive and productive word knowledge than the others. Based on this, the researcher concluded that for learners to retain a new word, they need a minimum of six encounters with that word during incidental reading. This finding, however, contradicts what other researchers in the literature have found regarding encounter frequency with a previously unknown word. In their study, Horst et al., (1998), Waring and Takaki (2003) and Webb (2007) reported that learners need at least eight encounters to commit the meaning of a new word to memory.

Zahar, Cobb and Spada (2001) tested the incidental acquisition of vocabulary through reading as well as the effects of frequency and richness of context. The sample comprised 144 seventh grade ESL students from a variety of L1 backgrounds in Canada. They were divided into five groups according to their scores from the Vocabulary Levels Test originally created by Nation (1990). Subjects in five groups took a pre-test which contained 30 words from the reading text read during the treatment stage. The words in the test came from various frequency levels set by Nation (1990), and the frequency of occurrence of each word in the text varied. The testing format was similar to the format of the Levels test which was given to the subjects earlier. Before the start of the treatment, there was an interval of thirteen days to allow enough time for learners to forget the items in the pre-test. During the treatment stage subjects listened to the audio

recording of the text as they read along simultaneously. This was done to preclude the possibility of learners stopping to refer to a source for the meaning of the unknown words in the text. Subjects were simply told to understand the reading text without taking any notes. Following the treatment stage, the researcher gave a post-test which contained the vocabulary items in the pre-test. The results of the post-test showed that learners in all groups incidentally learned some words from reading. The mean number of word gains for the groups was 2.33 out of 30 words tested. With respect to the role of frequency of occurrence of lexical items in the reading text, the researcher found that frequency of occurrence correlated with learning gains. It was also found that the group with the lowest score in the Levels Test showed higher gains in learning words that occurred more frequently in the text. Based on these findings, the researchers concluded that “frequency appears to be three to four times more important for beginners than it is for more advanced students” (p.553).

The role of frequency of vocabulary items in incidental vocabulary learning was also investigated in a study by Waring and Takaki (2003). They tested the rate learners learn and retain new vocabulary from reading a graded reader. Fifteen L1 Japanese subjects were asked to read a graded reader in which 25 invented but plausible English words replaced certain nouns and adjectives with different frequency of occurrence in the text (1 to 18 times). No glossing or any other clarification of vocabulary was provided. Short, medium and long term retention of the target words was measured with three tests which were administered immediately after the treatment, after one week and after three months. The tests contained four question types; word-form recognition, prompted meaning-recognition and unprompted meaning-recognition. The study found that although incidental learning actually occurred in the study, its effect was limited to a certain number of words. Especially frequent words in the text were found to be learned and retained even after three months by most learners. On the average, one lexical item out of 25 was retained after three months. These words were those which occurred at least eight times in the texts. The researchers suggested that incidental vocabulary acquisition from reading “should not be assessed by researching vocabulary gains and retention, but by looking at how graded readers help develop and enrich already known vocabulary” (p.130).

Unlike the studies above which measured incidental vocabulary learning in reading texts, Webb (2007) examined the role of word repetition on 121 Japanese L1 subjects' learning of 10 English words in sentential contexts. The target words which were substituted with nonsense words in isolated sentences appeared in ten 'presentation sets' each consisting of ten sentences. Subjects in the first treatment group were exposed to the first three sets of sentences. Those in the second treatment group were exposed to the first seven sets and the third group to all ten sets. The control group subjects did not take part in any of the reading tasks. Following the treatment, a post-test was administered to measure the subjects' retention of various aspects of the target words, like spelling, receptive / productive knowledge of form / function and grammatical category. Analysis of the results of the post-test showed that incidental learning leads to gains in learning the target vocabulary. "Repetition was found to have a significant effect supporting earlier findings.....Gains in knowledge of all five aspects tended to be larger with increased encounter of the target words" (Webb, 2007, p. 60). This study lends further support to the benefits of input frequency in terms of its contribution to learners' incidental acquisition of words.

The studies above all indicate that incidental learning activities contribute to the acquisition of L2 vocabulary as learners engage in comprehension tasks. They further indicate that learners' frequency of encounter with target words in an incidental vocabulary learning condition plays a causal role in the retention of lexical items. This finding clearly lends support to the *cumulative gain assumption* (Laufer, 2003) which claims that vocabulary learning develops incrementally as each new encounter strengthens the representation of the form-meaning connection of a word in the memory. The following section reviews some studies which were conducted to investigate the efficacy of explicit vocabulary teaching as compared to incidental teaching methods.

In a study by Wang (2005), incidental and explicit vocabulary teaching methods were compared with two different explicit vocabulary teaching conditions. In two explicit teaching conditions, subjects were taught target vocabulary items before/after reading. In incidental teaching condition, target words were encountered by subjects in reading tasks as they completed reading comprehension tasks. The comparison of vocabulary learning gains of the three groups demonstrated that explicit vocabulary instruction before reading

was more beneficial than reading-only and explicit vocabulary instruction condition that followed reading.

A comparative study by Shui-shing (2006) investigated the effects of explicit and incidental vocabulary teaching. The subjects in incidental teaching group read texts in which the target words were inserted. Subjects in explicit teaching group were taught target words using three different explicit vocabulary presentation technique i.e. mind-mapping, providing Chinese equivalents and English synonyms and definitions. The study found that the explicit vocabulary teaching method was more effective than incidental means of teaching vocabulary.

In an experimental study, Sonbul and Schmitt (2010) investigated the effectiveness of direct teaching of new vocabulary in reading texts. For this purpose, forty Arabic as L1 university student were taught 20 unfamiliar words in two learning conditions. In explicit teaching condition, target words which occurred in the reading texts were explained to subjects by giving their L1 meanings. In incidental teaching condition, target words were 'deliberately ignored in terms of explicit instruction'. Two post-tests given following the completion of the treatment measured found that explicit vocabulary teaching leads to greater learning than incidental vocabulary learning. Based on the finding of the study, it was concluded that incidental + explicit teaching was superior to incidental learning alone.

In their a involving subjects from various L1 backgrounds, Paribakht and Wesche (1997) compared the efficacy of incidental and explicit vocabulary teaching in reading-only condition and reading + explicit vocabulary teaching condition. They found that the subjects in two conditions benefitted from incidental and explicit vocabulary teaching activities. However, subjects that were exposed to the explicit vocabulary teaching tasks showed more vocabulary gains than those in reading-only condition. It was concluded that explicit teaching condition led to deeper quality of vocabulary knowledge than incidental vocabulary teaching condition.

In a study with mixed-L1 participants, Zimmerman (1997) found that explicit vocabulary teaching activities involving interactive vocabulary exercises after reading

comprehension tasks led to more vocabulary learning gains than incidental teaching condition that involved reading-only condition.

In a quasi experimental study Min (2008) compared the efficacy of explicit vocabulary teaching and narrow reading that afforded intermediate-level subjects multiple encounters to 50 vocabulary items. The subjects in explicit teaching condition practiced target words using exercises such as definition-matching, L1-translations and sentence-filling. The subjects in the narrow reading group were assigned additional thematically-related reading passages that contained the target words. Following the treatment the Vocabulary Knowledge Scale was used to measure learning gains and to assess students' knowledge of 50 vocabulary items. The study found that explicit vocabulary teaching group outperformed the narrow reading group that did not selectively attend to target items during instructional treatment sessions. Based on the results, the researcher concluded that 'given the variety and amount of exercises that the RV group intensively practiced during the instructional period, they had more opportunities to consciously undergo an elaborated mental processing of these target words, which was likely to enhance their vocabulary acquisition and retention' (p.98) .

Hulstijn and Laufer (2001) investigated the effects of explicit vocabulary teaching by testing three types of vocabulary teaching conditions. Dutch and Hebrew speaking learners of English were taught 10 target words in one of three conditions; i.e. reading comprehension with marginal glosses, reading comprehension + sentence completion and composition writing using target words. Measurement of the learning gains from three instructional condition revealed that composition writing condition led to better retention of the target words than the other two conditions. Given that the composition writing condition using target words called for explicit treatment of target words, it can be concluded that explicit teaching of vocabulary items was found to be more beneficial than implicit teaching methods.

Gregory (2008) replicated Hulstijn and Laufer's (2001) study with beginning level learners of Spanish. As in the original study, vocabulary instruction was carried out in three instructional conditions; i.e. reading comprehension with marginal glosses, reading comprehension+sentence completion and composition writing using target words. The learning gains measured for the three instructional conditions were in line with the

findings of the previous study. In other words, the assessment of the performance of three groups showed that explicit vocabulary instruction groups outperformed reading-only group.

In an experimental study with somewhat similar design, Llach (2009) examined the instructional benefits of explicit and incidental teaching of vocabulary. German subjects who were studying Spanish were taught 10 unfamiliar words in three instructional conditions. Subjects in group one read texts and answered comprehension questions (incidental teaching). Subjects in group two completed reading comprehension tasks and additionally answered comprehension questions related with the target words. Subjects in group three (explicit group) were given ten target words with their L1 translations and were asked to write L2 sentences with the words. Immediate and delayed post-tests that measured subjects' learning of the target words showed that explicit vocabulary instruction group did better than the other groups in both tests. The study also found that subjects who answered comprehension questions related with the target words outperformed the subjects in the reading only (incidental teaching) condition.

The studies above examined the efficacy of incidental and explicit teaching of individual lexical items. Their scope was limited to teaching form-meaning mappings of individual lexical items. However, vocabulary knowledge includes not only the formal and semantic aspects of words but also lexico-syntactic constraints on the use of words. In the following two sections, studies investigating the efficacy of explicit and meaning-focused teaching of the collocational properties of words are reviewed.

2.3.3. Research on Teaching L2 Collocations

In a collocation instruction study, Webb and Kagimoto (2009) investigated the effectiveness of explicit teaching of collocations using reading and cloze tasks. In the study, the contribution of receptive and productive collocation learning tasks to receptive and productive knowledge of collocations was investigated. A total of 145 Japanese university-level learners of English with L1 as Japanese were divided into three treatment groups and one control group. The control group subjects did not participate in any of the instructional activities and were given the pre-test and post-test only. Two treatment groups were taught in one of two instructional conditions; receptive or productive learning of collocations. Subjects in the two groups were exposed to 24 verb + noun

target collocations during a 90 minute session. The subjects in the receptive learning condition encountered each collocation in three glossed sentences. The subjects in the productive learning condition were asked to complete the gaps in three sentences by selecting the correct collocation from among two alternatives. The post-test was administered following the treatment. The researchers found no significant differences between the two treatment conditions. Based on this result the researchers concluded that “reading glossed sentences and completing cloze task may both be effective and efficient methods of learning collocations” (p. 67). That study showed that focusing on collocations in productive and receptive tasks is beneficial for learners.

In a collocation study in university context in Turkey, Ordem (2005) investigated the efficacy of teaching lexical collocations to 60 first-year English majors in reading courses. The subjects were divided into treatment and control groups. Their knowledge of collocations was tested before and after the treatment to reveal the effect of focusing on collocations during reading classes. Subjects in the treatment groups were taught collocations in reading texts using collocational grids emphasizing restricted collocations as well as semantic prosody. The subjects in the control group were not taught collocations explicitly; they were only given definitions, synonyms or antonyms of individual words in collocations. The results of the pre and post-test comparisons showed that teaching word units in lexical chunks contributed significantly to the treatment group’s retention of those collocations. Analysis of their use of collocations in four guided writing tasks and collocation judgment tasks further revealed that the subjects in that group could use adj+noun and verb+noun collocations ‘more appropriately and less deviantly’ than the control group subjects. Based on this result, the researcher suggested that drawing learners’ explicit focus on L2 collocations benefits learners in terms of both receptive and productive knowledge of collocations. Ordem’s study was quasi-experimental in design so some variables may have not been fully controlled. It also focused on collocations found in certain units of a reading textbook taught to the students in ad hoc manner (as they appear in the units). This might have affected the results of the study as they may have read the passages independently. Nevertheless, it clearly indicates the effect of explicit instruction on learners’ retention of collocations

In a unique study design involving 101 Chinese as L1 non-English majors from two different proficiency levels, Fan (2005) examined the differential effects of attention on

the acquisition of underlying rules of four verb+noun collocations *i.e. wield+noun, warp+noun, make+noun, take+noun*. The verbs in the target collocations were replaced with pseudo-words and were embedded meaningfully in six reading texts. The reading texts and accompanying practice tasks were studied by subjects in four different treatment conditions; semantic processing, memorization for recall, rule-given and rule-given plus negative evidence. The activities for each group were designed to induce various degrees of attention to the target collocations. Following the treatment stage, the subjects were given a retention test which contained three sections designed to measure subjects' (1) retention of the meaning of the collocations, (2) production of the new collocations with new nouns (3) ability to judge the collocability of the verb with new nouns in sentences. The study found that the subjects in the rule-given and rule given + negative evidence conditions outperformed subjects in the two other groups. The subjects in the memorization group performed well in the meaning retention test only. Subjects in the semantic processing condition achieved the lowest scores in all sections of the tests. The fact that treatment of collocations in the semantic processing group entailed peripheral attention only to these items led the researcher to conclude that undivided attention is important for acquiring collocations. The study also found that subjects in the two rule-given conditions performed better than those in the two other groups. Based on the results, he concluded that focal attention to target collocations (as in the rule-given condition) contributes to acquisition of the collocational properties of words. The study clearly shows that focal attention resulting from explicit teaching can lead to acquisition of collocations.

In one study, Boers et al., (2006) put the concept of noticing collocations to the test by directing learners' attention to collocations in the input. They exposed subjects to 22 hours of authentic listening and reading materials during which they were 'encouraged to appreciate the syntactic dimension of vocabulary'. The researchers found that drawing learners' awareness to collocations in the input helped them notice and subsequently acquire these items.

Hsu (2002) tested the efficacy of raising learners' awareness of collocations. He investigated whether teaching subjects lexical collocations in a business English workshop could contribute to Taiwanese college EFL learners' development of language proficiency and collocational proficiency. For this purpose, he attempted to draw

subjects' attention to target collocations which were presented to them in highlighted form throughout the instructional period. He found that explicit emphasis on lexical collocations contributed positively to the subjects' acquisition of new collocations in the written and oral input. Hsu's study shows the benefits of instructional focus on collocations; however he fails to provide exact details as to the nature of the collocation instruction activities. For this reason, we can only speculate on the types of collocation instruction.

The studies above investigated benefits of teaching collocations in traditional instructional settings. Some collocation instruction studies in the research literature explored computer assisted language learning environments. In most of them, concordance software was used to teach collocations in the computer environment. Several such studies are reviewed in the subsequent section.

Most computer assisted collocation instruction studies make use of concordances to teach collocations, and accordingly they adopt frequency-based descriptions of collocations in their design. Although the present study defines collocations in a phraseological sense, reviewing them here would be useful in order to see the effects of computer-based instruction on learners' acquisition of 'recurrent word combinations'.

In their study, Sun & Wang (2003) used computer-assisted collocation instruction to examine the effectiveness of teaching four grammatical collocations in two instructional conditions (i.e. inductive and deductive learning). Four target collocations were selected from two different levels of perceived difficulty i.e. '*distinguish A from B / in excess / indignant with, at / the gulf between A and B*'. A total of 81 senior high school students who were divided into inductive and deductive collocation teaching groups participated in a one-hour online collocation instruction. Subjects in the deductive learning group were taught the underlying rules of four grammatical collocations through explanations and examples. The inductive learning group subjects were expected to 'induce' rules and patterns of the grammatical collocations using a concordance program on the computer. The results of the post-test showed that subjects who learned collocations inductively by discovering the collocational constraints of the target collocations on their own performed better than subjects in the deductive learning group. The researchers also found that level of difficulty of collocations determines learning. Collocations from the easier band could

be learned better inductively. This study shows the relative effectiveness of inductive learning of collocations. However, when generalizing the findings from the study it should be borne in mind that the number of collocations in the study was very limited. With a higher number of collocations learned inductively, learning gains may have been lower. This finding contrasts with the finding of other collocations instruction studies which found more explicit means of collocation instruction to be superior to teaching methods that rely on learner-initiated attention to collocations.

Chan and Liou (2005) investigated the use of online Chinese-English bilingual concordance software to teach verb-noun collocations with 32 college EFL students. In the immediate retention tests, they found that practicing verb-noun collocations using a bilingual concordance contributed to subjects' retention of collocations immediately after the online practice. However, long term retention rates of the same collocations were found to be lower. The researchers noted that the "students' overall degree of retention of collocation between the immediate post-test and the delayed post-test decreased significantly" (p.239). They also discovered that different types of verb-noun collocations resulted in different practice effects. Based on the overall results from their study, they concluded that explicit teaching using CALL instruction contributes to learners' acquisition of collocations.

In another computer assisted collocation teaching study involving Turkish learners at a university, Akıncı (2009) investigated the effectiveness of corpus consultancy in teaching verb+noun collocations to 58 first-year ELT students. The subjects in the study were divided into three treatment conditions; a data-driven learning condition, an explicit instruction condition, and a combined learning condition. Collocation instruction in the data-driven condition was delivered on the computer, whereby learners could use two web-based concordance programs to detect possible collocates of some nouns written on the board. When subjects found the right collocations on the computer they exchanged them with other subjects and later shared them with the instructor by writing them on the board. Unlike the data-driven group, the subjects in the explicit collocation instruction group were taught collocations in the classroom. The instructor raised learners' awareness of incongruent collocations by elaborating on them on the board. After this, they were given worksheets containing gap-filling tasks about the collocations studied. They answered the practice tasks by checking the collocations that were explained on the

board. The correct answers to questions on the worksheets were provided by the instructor at the end of the each session. The subjects in the combined group (explicit instruction + computer based instruction) practiced some of the collocations on the computer and the rest in the explicit condition. To measure subjects' retention of collocations taught during treatment sessions, two types of test were given; a fill-in-the-blank test in which the first letter of the verb and the Turkish translation of the sentence provided and a collocation judgment test. In addition to the two retention tests, a questionnaire and a semi-structured interview was used to gain insights about the feeling of subjects who used the computer to practice collocations. The researcher found that the explicit instruction group showed the best performance in the two tests. He interpreted this result; "a great deal of attention should be paid to the L1 interference in the process of teaching these collocations. Explicit teaching is regarded as one of the most effective ways to achieve this since this teaching style helps learners to enhance their awareness, and thus helps them deal with possible L1 interference" (p.106). Based on that finding, the study concluded that although positive attitudes about using computers were found in questionnaires and interviews, inductive collocation instruction using concordances may not necessarily translate into acquisition of collocations.

The studies above show that learners usually benefit from instructional focus on collocations. Nevertheless, further studies are needed to substantiate the role of various types of instructional methods on learners' acquisition of L2 collocations. Given our current state of knowledge on the benefits of teaching collocations, it would be fair to say that research in this area is far from being exhaustive. We have yet to empirically test the effect of different instructional methods on learners' acquisition of collocations. Particularly, incidental teaching of collocations as well as related concepts such as the effects of input frequency on incidental learning of collocations still remains a poorly understood area of research.

3. METHODOLOGY

3.1. Introduction

This chapter presents details about the overall design of the study. It also provides a detailed description of the implementation of the study and gives information about the participants, instructional materials and measurement instruments used.

3.2. Research Design

This experimental study attempted to investigate the efficacy of explicit (collocation-focused) and incidental (meaning-focused) teaching of L2 collocations. For this purpose, appropriate instructional materials were developed. For the explicit collocation teaching group (ETG), six sets of collocation-focused practice exercises were created to focus the subjects' conscious attention to the formal and semantic aspects of eight previously unknown collocations. In the two incidental teaching conditions, subjects were exposed to collocations in reading texts in which eight target collocations were inserted. Since each collocation appeared once in a single text, the number of meaning-focused encounters with the collocations was controlled for both the incidental teaching groups. This was done by assigning a different number of reading texts for the two incidental teaching groups. Subjects in one incidental teaching group (IT1) were assigned six reading texts while those in the second incidental teaching group (IT2) were assigned twelve texts.

Accordingly, the three groups in the study were;

- explicit teaching : ETG
- incidental learning : IT1
- incidental learning + input frequency : IT2

Prior to the implementation of the study, a collocation familiarity test developed by Gyllstad (2007) was given to all subjects in order to select the target collocations used in the study. After that, instructional materials developed for the study were used during the treatment phase. At the end of the treatment period, which lasted four weeks, subjects in the three groups were given an immediate test and three weeks later, they

were given a delayed post-test. The sequence of the four implementation stages in the study is shown in Figure 4.

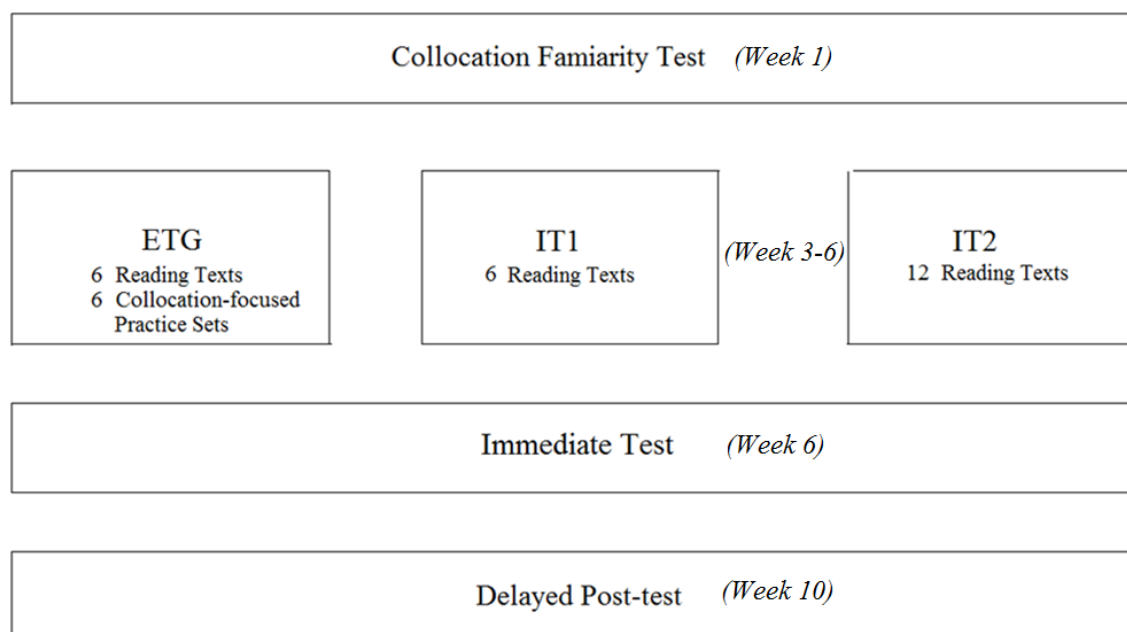


Figure 4. An outline of the implementation of the study

3.3. Subjects

The participants in the study were selected from the students attending the School of Foreign Languages, Selçuk University, which offers a one-year English preparatory programme to first year students before they commence classes in their subject areas. As part of the school policy, every prospective student is given a language proficiency exam at the start of the fall term, which is prepared and administrated by the testing and evaluation center of the school. The school proficiency exam contains multiple choice questions designed to measure students' knowledge of important grammar points, basic vocabulary and reading comprehension skills. Based on the scores from this exam, successful students are exempted from attending the program. Students with lower than minimum scores are required to take elementary-level classes. Subsequently, they proceed to pre-intermediate and intermediate levels.

At the time of conducting the study, the subjects had already received over 500 hours of language instruction and were attending intermediate-level courses. Their course

curriculum covered the four major language skills; i.e. reading, speaking, writing and listening. The students' language development was monitored with regular progress tests administered every two weeks, which ensured a continuous assessment of their progress in their classes. In selecting the subjects in the study, scores from these tests were checked and students with poor average scores (less than the passing score of 60 set by the institution) were not included in the study. After the selection procedure, a total of 105 students in six intermediate-level classes were chosen to participate in the study. They were randomly assigned into one of three groups. The Table 1 below shows the distribution of the subjects in three groups.

Table 1

Number of Subjects in the Study

Group	N
Explicit Teaching Group (ETG)	34
Incidental Teaching Group 1 (IT1)	33
Incidental Teaching Group 2 (IT2)	38
Total	105

Before the implementation, participants were informed about the aim of the study and an 'informed consent form' was obtained from each participant. Ages of the participants ranged between 18-21, and they all spoke Turkish as their L1.

3.4. Materials

In the study, three types of materials were used i.e. a collocation familiarity test, instructional packets and the post-tests (cf. APPENDIX I, II, III and IV). A detailed description of each material is given in the following section.

3.4.1. Selection of Target Collocations

In this experimental study investigating the incidental and explicit teaching of collocations, verb+noun collocations were selected as target collocations to be used during the instructional treatment sessions. The reason for selecting verb+noun collocations in the study was that they are not only frequent in language (Bahns, 1993; Howarth, 1996; Aisenstadt, 1979) but also pose serious difficulties for L2 learners (Howarth, 1996). Another reason is the widely held view that verbs and nouns in language “tend to form the communicative core of utterances where the most important information is placed” (Altenberg, 1993, p.227). Also, many collocation studies in the literature focus on verb+noun collocations. Thus, in order to be able to compare and contrast the findings from the present study with findings from parallel studies, the same type of collocations (verb+noun) were chosen.

When deciding on the target collocations for the study, another consideration was the restrictedness of the collocations. According to the working definition in the present study, a collocation is a word combination consisting of at least two elements one of which is freely chosen on the basis of its meaning, while the selection of the other element depends on this freely chosen element. In this regard, the meaning of one element in a collocation remains intact, but the meaning of other element is contingent on the first. Based on the definition above, the semantic/syntactic characteristics of collocations as well as the substitutability of their elements were considered as the main criteria in the selection of target collocations in the study.

The target collocations were selected using a receptive test of English collocations developed by Gyllstad (2007). The original test, which contained a battery of subtests in different test formats, was previously administered to learners from various L1 backgrounds. It was found that the tests could discriminate well between learners of different proficiency levels, and between learners and native speakers of English. It was also found that scores from the receptive collocation test correlated highly with scores on a receptive vocabulary size test.

Before selecting an appropriate test from that source material, two experienced ELT specialists from the dissertation committee were consulted. Following their suggestions,

a multiple-choice collocation test was chosen. To ensure that the selected test format actually suits subjects' level, two colleagues teaching parallel groups at the same school were consulted about the suitability of items on the test. They expressed positive views about the suitability of the selected test format.

The selected test format contained 50 test items. In the test, verb + noun collocations were presented along with two incorrect collocations. For example;

- | | | | |
|-------------------|-----------------|------------------|-------|
| a) earn access | b) take access | c) gain access | ..... |
| a) lay birth | b) give birth | c) bring birth | ..... |
| a) make apologies | b) do apologies | c) lay apologies | ..... |

In order to prevent subjects from answering the questions correctly by chance, an L1 translation task was added to the adapted version of the test (cf. APPENDIX I). Following the administration of the collocation familiarity test, eight collocations were selected. When deciding on the target collocations, special effort was made to select collocations that could suitably be used in reading texts (i.e, could be coherently inserted within the texts). In the selection process, the restrictedness of the collocations was another important criterion. As can be seen in Table 2 below, each selected collocation has two elements, one of which is freely chosen on the basis of its literal meaning but selection of the other element depends on that freely chosen element.

Table 2.

Target Collocations used in the study

pay heed	draw conclusion	seize opportunity	conduct survey
take root	gain access	serve purpose	make progress

3.4.2. Instructional materials

The two types of materials used for instructional treatments were;

- (i) a total of twelve reading texts with target collocations inserted + comprehension/vocabulary exercises related with the texts for the incidental teaching condition. (cf. APPENDIX II).
- (ii) worksheets containing collocation-focused tasks for the explicit teaching condition (cf. APPENDIX III).

In the following section, a detailed explanation is provided regarding selection of reading texts used in the study and modifications made to these texts. The section subsequently provides information on the collocation-focused practice exercises used in the explicit collocation teaching condition.

3.4.2.1. Reading texts:

With the aim of providing contexts for the target collocations, twelve reading texts were selected from various intermediate level ELT textbooks. Text reduction and text simplification were performed to reduce each text to 350 words. This was achieved by omitting the expandable parts of the texts which were not essential for the comprehension of the main ideas. In doing so, the basic ideas in the texts remained the same but the resulting texts became shorter. By limiting each text to 350 words, it was expected that learners could complete text-comprehension task within the allocated time. In the text simplification process, low-frequency words in the texts were replaced with familiar words to make for easy reading.

To ensure that the readability level of the texts actually matched that of subjects in the study, the Flesch Readability Ease and Flesch-Kincaid Grade Level formulas were used. The two formulas are used extensively in L1/L2 contexts to judge the readability level of various texts. The Flesch Readability Ease formula produces readability scores that indicate text difficulty, with low scores marking difficult texts and high scores marking easy texts. The Flesch-Kincaid Grade Level formula translates readability scores to a grade level such as 8.2, which indicates that the text can be comprehended easily by an

average student in 8th grade. In both formulas, difficulty of a text is assessed by analyzing sentence length and the number of syllables per word. More specifically, shorter sentences containing words with fewer syllables are considered to be the easiest to read, while longer sentences containing words with multiple syllables are considered difficult to read (cf. APPENDIX VII). Although the two readability calculation formulas were developed for L1 contexts, they are also used in L2 contexts along with another formula, i.e. the Miyazaki EFL Readability Index, developed especially for L2 contexts. Greenfeld (2004), who formulated the Miyazaki Readability Index, claimed that his own EFL readability index and the established readability indices produce practically similar results. Referring to the validity of established L1 readability indices for ELT contexts Greenfeld (2004) said:

[.....] classic formulas are indeed fundamentally valid for a broad spectrum of English readers that includes non-native as well as native readers. In other words, the formulas work quite well to predict the relative EFL/ESL difficulty of English academic texts.

(Greenfeld, 2004, p.11)

Based on the above conclusion that established readability indices (referred to as 'classic formulas' in the citation) also lend themselves to being used in text readability calculations in L2 contexts, it was decided that the Flesch Ease Score and Flesch-Kincaid Grade formulas could be used in the present study to evaluate the readability of the texts. For this purpose, a web-based readability index calculator at <http://www.standards-schmandards.com/exhibits/rix/> was used. Using that online calculator, modifications were made to texts so that each text had a readability score of 50-55 which corresponded to a grade level of 9. In order to ensure that grade level 9 actually suited the subjects in the study, two colleagues teaching parallel groups were asked to assess the difficulty level of texts. For this purpose, they were asked to assign two of the reading texts in their classes as reading comprehension tasks. It was found that the readability levels of the texts did not pose difficulties for the students and the two teachers expressed positive opinions as to the readability levels of the texts. When modification of the texts was completed, they were checked for a second time by a native speaker and final corrections were accordingly made to the texts.

Subsequent to text reduction and simplification, the eight unfamiliar target collocations were inserted into each text. For this purpose, necessary text modifications were carried out to accommodate the target collocations meaningfully within their immediate and wider contexts. New sentences containing the target collocations were added or existing sentences were modified so that the target collocations could be coherently inserted into the texts without compromising semantic unity. The text modification process was carefully monitored by a native speaker who provided regular feedback on the accuracy and appropriacy of the modified sentences in the texts.

As follow-up tasks for the reading texts, five multiple-choice questions and a ten-item vocabulary definition matching exercise were created for each text. The comprehension questions were designed to encourage the participants to read the texts for meaning. The vocabulary exercises contained lexical items that contributed to the main idea in the text; however, they did not contain any of the target collocations (cf. APPENDIX II).

3.4.2.2. Collocation-focused Practice Sets

In order to teach collocations explicitly, six sets of explicit collocation teaching materials were prepared. In each set, five types of tasks were created to teach formal and semantic aspects of target collocations in minimal and sentential contexts. The exercises were arranged in order of increasing difficulty. Each of the tasks is explained below.

Exercise type 1: This task involved detecting the target collocations in the reading texts and providing L1 equivalents by guessing their meaning in the text.

Exercise type 2: The second task involved matching collocations with their right definitions. The target collocations were presented on the left column and definitions were provided in the opposite column. Two extra definitions were added to the definition column to serve as distractors.

Exercise type 3: This task contained cloze exercises involving the target collocations. Here, the subjects were expected to decide on the correct collocation which meaningfully filled in the gaps in sentences. Also, the subjects were asked to provide the missing parts of the collocations.

Exercise type 4: This exercise involved translating sentences containing the target collocations into L1. When forming the sentences, special effort was made to avoid difficult sentences so that subjects did not get distracted by unknown lexical items.

Exercise type 5: This task was somewhat similar to the preceding task in that both involved comprehension of the given sentences containing collocations and writing of learners’ own renderings. In this exercise, subjects were encouraged to use the synonyms of the target collocation in paraphrased sentences.

As explained in detail above, the collocation-focused practice activities developed for the explicit teaching condition consisted of six sets in total. Each set contained five different types of exercises which were compiled into single set of worksheets for each treatment session (cf. Appendix III).

3.4.3. Contents of the Instructional Packets for the Three Groups

In Table 3 below, the distribution of the three sets of instructional materials for each group are shown.

Table 3

Instructional Materials in the Study

	Reading Texts												Collocation-focused Practice Sets					
Groups	1	2	3	4	5	6	7	8	9	10	11	12	1	2	3	4	5	6
ETG	■	■	■	■	■	■							■	■	■	■	■	■
IT1	■	■	■	■	■	■												
IT2	■	■	■	■	■	■	■	■	■	■	■	■						

The instructional packet for the explicit teaching group (ETG) contained six reading texts with comprehension questions and vocabulary exercises about the texts. In addition to the reading texts and accompanying exercises, six collocation-focused practice sets were included in the instructional packet for this group.

The instructional packet for incidental teaching group 1 (IT1) contained six reading texts + accompanying comprehension questions and vocabulary exercises.

The instructional packet for incidental teaching group 2 (IT2) consisted of twelve reading texts + comprehension / vocabulary exercises related with the texts.

3.4.4. Immediate Test / Delayed Post-test

As shown in Table 3, the test which was used both as an immediate and a delayed post-test, had four sections. While the first two sections were designed to measure subjects' form /recognition of the target collocations (FR1 and FR2) the third section aimed to measure subjects' meaning-recognition of the target collocations (MR). The fourth section was designed to measure subjects' use of target collocations in a reading cloze test (RCT). An outline of the test sections and the types of tests used are shown in Table 4.

Table 4.

Contents of the Immediate test / Delayed Post-test

<i>Test Section</i>	<i>Testing Format</i>
Form Recognition 1 (FR1)	Selecting the correct collocation form among three choices
Form Recognition 2 (FR2)	Matching collocation parts from two lists
Meaning Recognition 1 (MR)	Matching the definition of collocations given in two lists
Reading Cloze Test (RCT)	Filling the gaps in a short text with the correct collocations

Form Recognition Test 1: The tests items in FR1 were designed to measure subjects' recognition of the correct forms of the eight target collocations. It contained test items which asked subjects to recognize the correct form of the target collocations among two other distractors.

Form Recognition Test 2: The test format in FR2 asked subjects to match the verb form of the target collocation on the left column with the correct noun presented in the next column. In addition to the eight target collocations, seven additional distractors were added to the lists.

Meaning Recognition Test: This section of the test was designed to measure subjects' meaning-recognition of the target collocations. The target collocations and seven distractors were presented in one list and the definitions were presented in another list. The subjects were asked to choose the correct definition of the target collocation in the opposite list.

Reading Cloze Test: This section contained a reading cloze test comprising a text of 220 words in which the eight target collocations had been deleted. The subjects had to select the correct collocations from a list to fill in the gaps (cf. APPENDIX IV).

3.4.4.1. The Preparation of the Test

Following the construction of the four sections of the test, two members of the dissertation committee were invited to review the content of the tests. According to the suggestions received, some items in the test were replaced, modified or omitted.

With the aim of piloting the test, ten students from parallel intermediate groups were asked to take the tests. They were asked to go through all items in the test and evaluate the wording of the instructions. Based on their feedback, minor changes were made to the test. Also, two of the researcher's colleagues were asked to evaluate the format and the comprehensiveness of the test. Their comments about the test format and question items were noted. Shortcomings deriving from the test design were identified and necessary corrections were made. For example, one important shortcoming reported by one colleague was that there were two possible answers for one question in the reading cloze test in section 4. Using the feedback from one colleague, the necessary

modification was made to the text to ensure that there was only one correct answer for each gap in the text.

3.5. Implementation of the study

Before implementation, the school authorities were informed about the nature of the study and the timescale needed for its completion. A signed consent form was obtained from each participant. Originally, the initial population of subjects was 111. However this total was reduced to 105, because six subjects were later excluded as they didn't participate regularly in the instructional sessions.

The instructional treatment lasted four weeks. The number of class periods varied for each group as shown in Table 5.

Table 5.

Overview of Weekly Sessions and Instructional Materials Used

		ETG (2 Class-periods per day)	IT1 (1 Class-period per day)	IT2 (1 Class-period per day)
Week 1	<i>Monday</i>	R. Text 1 + Col. Pr. Set 1	R. Text 1	R. Text 1
	<i>Wednesday</i>			R. Text 2
	<i>Friday</i>			R. Text 3
Week 2	<i>Monday</i>	R. Text 2 + Col. Pr. Set 2	R. Text 2	R. Text 4
	<i>Wednesday</i>			R. Text 5
	<i>Friday</i>	R. Text 3 + Col. Pr. Set 3	R. Text 3	R. Text 6
Week 3	<i>Monday</i>	R. Text 4 + Col. Pr. Set 4	R. Text 4	R. Text 7
	<i>Wednesday</i>			R. Text 8
	<i>Friday</i>	R. Text 5 + Col. Pr. Set5	R. Text 5	R. Text 9
Week 4	<i>Monday</i>			R. Text 10
	<i>Wednesday</i>			R. Text 11
	<i>Friday</i>	R. Text 6 + Col. Pr. Set 6	R. Text 6	R. Text 12

The number of class periods needed for the completion of instructional treatment for one day was two hours for ETG, one hour each for IT1 and IT2. Instructional treatments for the three groups were delivered outside normal class hours by the researcher according to lesson plans (cf. APPENDIX V). Details as to the instructional treatments for each group are given in the following sections.

3.5.1. Instructional Treatment for the Explicit Treatment Group

Each instructional treatment for this group lasted two class periods per day. In the first class period, the reading texts were handed out to the subjects and they were asked to read and complete the comprehension questions associated with the text. In the second class period, a collocation focused practice set was completed. The five sections in the practice set were arranged according to increasing difficulty and came in the form of worksheets. Accordingly, in each section subjects were asked successively to;

1. Detect and underline the target collocations in the reading text and provide their Turkish equivalents
2. Match the target collocations with their correct definitions provided in the next column
3. Fill in the gaps in eight sentences with the correct collocations (cloze test)
4. Translate eight sentences containing the target collocations into Turkish
5. Paraphrase eight sentences containing target collocations

In order to prevent subjects from referring to materials from the previous task to complete a practice exercise, the worksheet from the earlier activity was collected before proceeding with the next one.

3.5.2. Instructional Treatment for Incidental Teaching Group 1

The reading texts were handed out to subjects and they were asked to read through the text without worrying too much about unknown vocabulary items. They were instructed to get a general understanding of the text without referring to their dictionaries. During the treatment, no reference was made by the teacher as to the meaning of the target collocations in the text. Following the completion of the meaning-focused reading of the

text, subjects were asked to answer comprehension questions about the text. Next, vocabulary definition matching exercises were completed. By assigning six reading texts to IT1, subjects in this group encountered each collocation six times during meaning-focused reading.

3.5.3. Instructional Treatment for Incidental Teaching Group 2

Similar to subjects in IT1, subjects in this group were given a reading text and asked to comprehend it without referring to any source to look up the meaning of unfamiliar words. After completion of the reading task, they answered comprehension questions and did the vocabulary exercises. Unlike subjects in IT1 who were asked to read six reading texts, subjects in this group read twelve texts.

3.6. Measurement of Learning Gains

Subsequent to the completion of the instructional treatments, subjects were given an immediate test. After an interval of three weeks, the same test was given again as a delayed post-test to measure the effect of time on subjects' retention of the target collocations introduced during instructional treatment.

When administering the test, the materials for each section were given separately and testing materials from the previous section were collected before those for the next section were distributed. This was done to prevent subjects from correcting their mistakes in the previous section of the test by reading the materials in the next section or vice versa. This was especially important for the FR1 and FR2 test sections that measured subjects' form recognition of target collocations.

The delayed post-test, which was given three weeks after the post-test, was administered according to the same testing procedures above.

3.6.1. Scoring

Subjects' responses to question in all sections of the test were scored using a binary code. A correct answer received a score of 1, and an incorrect answer received a score of 0. The maximum obtainable score from one section of the test was eight. Since the

test had four sections, the total obtainable score from those four sections of the post-test was 32. Correct answers to question items that served as distractors were not counted.

3.6.2. Data analysis

The raw scores obtained from the immediate test and delayed post-tests were submitted to statistical analyses using SPSS version 16.0 for Windows. In order to answer research questions 1, 2 and 3, ANOVA was used to find any statistically significant differences between the three groups in terms of immediate and post-test scores. To further reveal differences between specific groups; Tukey's post-hoc test was used to make pair-wise comparisons.

To answer research question 4, the mean scores of the three groups from the immediate and the delayed post-test were compared using t-tests.

To compare the retention profiles of the three groups on the basis of their mean scores from the immediate and delayed post-tests, repeated ANOVA was used.

4. RESULTS AND DISCUSSION

The present study investigated the efficacy of explicit and incidental teaching of collocations to intermediate learners of English. For this purpose, three instructional treatment conditions were designed to teach eight unfamiliar verb+noun collocations over a period of four weeks. During the instructional treatments, collocation-focused tasks were completed with an explicit teaching group (ETG) and meaning-focused reading comprehension tasks were completed with two incidental teaching groups (IT1 and IT2). The reading tasks afforded subjects incidental exposure to target collocations with different encounter frequencies. The subjects in IT1 encountered each target collocation six times while those in IT2 encountered them twelve times in reading texts.

Gains from the three types of collocation instruction were measured by an immediate test and a delayed post-test. The tests contained four sections. They were; (i) two form-recognition tests (FR1/FR2), (ii) a meaning-recognition test (MR) and (iii) a reading cloze-test (RCT). An immediate test was given following the completion of the instructional treatment. A delayed post-test was given after a three-week interval to measure the effect of time on subjects' retention of the target collocations. After the administration of the immediate test and the delayed post-test, correct responses to the test items were scored for each test section and submitted to statistical analyses. Each correct answer was given a score of 1; thus, the total score obtainable for one section of the test was 8.

In order to answer research questions 1, 2 and 3, the procedures below were followed. First, the mean scores of the three groups for each test section (FR1, FR2, MR, and RCT) were found and submitted to one-way analysis of variance (ANOVA) to determine if differences existed among the three groups in terms of their mean scores for each test section. Second, in order to further reveal specific between-group differences, Tukey's post hoc test was conducted. These procedures were repeated for both the immediate test and the delayed post-test. To answer research question 4, t-test analysis was used to compare the three groups' immediate test and delayed post-test performances. Also, a repeated analysis of variance (ANOVA) was used to compare the

three groups in terms of their retention profiles (i.e. immediate test and delayed post-test performances).

In the following section, the results of the statistical analyses are presented with regard to the relevant research questions.

4.1. Research question 1: “Which of the instructional conditions (i.e. explicit, incidental, incidental+) result in better form/recognition of target collocations?”

To answer research question 1, subjects’ mean scores from form/recognition test 1 (FR1), and form/recognition test 2 (FR2) were found and submitted to statistical analyses. The FR1 and FR2 mean scores of the three groups showed that the instructional treatments did have an effect on learners’ recognition of collocation forms. The resulting mean scores found for the FR1 and FR2 sections of the immediate test / delayed post-test are shown in Table 6.

Table 6.

Immediate Test/Delayed Post-test Mean Scores for Form Recognition Test 1/2

Form Recognition Test 1		Immediate Test		Delayed Post-test	
<i>Group</i>	<i>N</i>	<i>Mean</i>	<i>SD</i>	<i>Mean</i>	<i>SD</i>
ETG	34	7,50	,82	7,41	,86
IT1	38	5,05	1,68	4,82	,83
IT2	33	6,03	1,38	5,85	1,52
Total	105	6,15	1,69	5,98	1,82

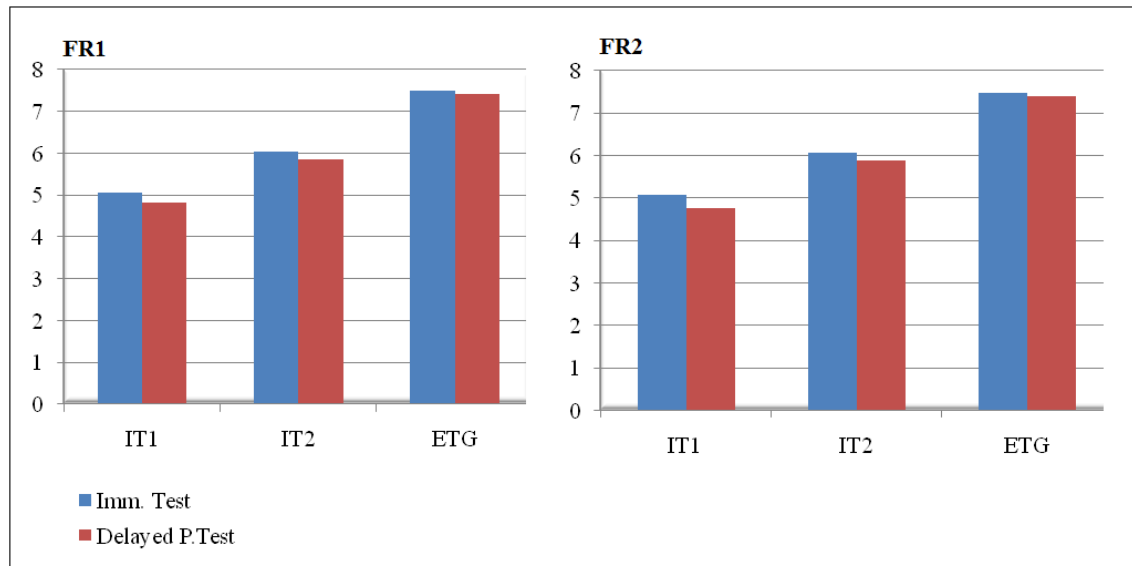
Form Recognition Test 2					
ETG	34	7,47	,89	7,41	1,02
IT1	38	5,07	1,66	4,76	1,68
IT2	33	6,06	1,49	5,88	1,45
Total	105	6,16	1,71	5,97	1,79

It can be observed in Table 6 that the explicit teaching group performed above the mean. The mean score of the ETG in FR1 was 7,50 for the immediate test and 7,41 for the delayed post test. And in FR2, the mean score was 7,47 for the immediate test and 7,41 for the delayed post-test. A comparison of the mean scores shows the ETG obtained the highest mean scores in FR1 and FR2.

The two incidental teaching groups performed below the mean, the IT1 with a mean of 5,07 for the immediate test and 5,76 for the delayed post-test in FR 1. In FR2, the mean score was 5,07 for the immediate test and 4,76 for the delayed post-test, the lowest of all three groups.

The mean score of IT2 was 6,03 for the immediate test and 5,85 for the delayed post-test in FR1. In FR2, the mean score was 6,06 for the immediate test and 5,88 for the delayed post-test. Considering the mean scores of IT2, it can be said that IT2 got the second highest mean scores among the three groups.

Differences between the mean scores of the three groups can be observed in Graph 1.



Graph 1. Immediate Test/Delayed Post-test Mean Scores for Form Recognition Test 1-2

As can be observed in Graph 1, the immediate test mean scores of the two incidental teaching groups in FR1/FR2 are higher than the delayed post-test mean scores. Such differences do not occur for ETG. Hence, it could be said that differences between the

immediate test and the delayed post-test mean scores are more observable for the two incidental teaching groups than for the explicit teaching group.

To find out whether the differences in the mean scores of three groups in FR1 and FR2 test sections were statistically significant, one-way analysis of variance (ANOVA) was conducted. The results of the ANOVA analysis are shown in Table 7.

Table 7.

Results of Analysis of Variance Comparing the Means from Form Recognition Test 1/2

IMMEDIATE TEST		<i>Sum of Sq.</i>	<i>df</i>	<i>Mean Sq.</i>	<i>F</i>	<i>p</i>
Form Recognition Test 1	Between Groups	108,20	2	54,10	29,45	,000
	Within Groups	187,36	102	1,84		
	Total	295,56	104			
Form- Recognition Test 2	Between Groups	103,13	2	51,56	26,15	,000
	Within Groups	201,11	102	1,97		
	Total	304,24	104			
DELAYED POST-TEST						
Form Recognition Test 1	Between Groups	121,77	2	6,89	27,95	,000
	Within Groups	222,19	102	2,18		
	Total	343,96	104			
Form Recognition Test 2	Between Groups	126,29	2	63,15	31,17	,000
	Within Groups	206,62	102	2,03		
	Total	332,91	104			

* $p < ,05$

The result of one-way ANOVA in Table 7 indicated significant differences for FR1 and FR2 in the immediate test and the delayed post-test ($p < ,05$). In order to find out how the three groups differed among themselves, Tukey's post hoc analysis was performed. The results of post hoc analysis are shown in Table 8.

Table 8.

Results of Pair-wise Comparison of Mean Scores for Form Recognition Test 1-2

IMMEDIATE TEST		Form Recognition Test 1			Form Recognition Test 2		
<i>(I) Group</i>	<i>(J) Group</i>	<i>Mean Dif.</i>	<i>Std. Er.</i>	<i>p</i>	<i>Mean Dif.</i>	<i>Std. Er.</i>	<i>p</i>
ETG	IT1	2,44 (*)	,31	,000	2,39 (*)	,33	,000
ETG	IT2	1,46 (*)	,33	,000	1,40 (*)	,34	,000
IT2	IT1	,98 (*)	,32	,009	,98 (*)	,33	,011
DELAYED POST-TEST							
ETG	IT1	2,60 (*)	,34	,000	2,64 (*)	,33	,000
ETG	IT2	1,56 (*)	,36	,000	,53 (*)	,34	,000
IT2	IT1	1,03 (*)	,35	,011	1,11 (*)	,33	,004

* $p < ,05$

The results of post hoc analyses (Tukey's HSD) in Table 8 showed that three groups differed among themselves at $p < ,05$ level. Therefore, to answer research question 1, it could be said that the ETG outperformed the two incidental teaching groups. Again, of the two incidental teaching groups IT2 outperformed IT1.

Based on the finding above, it could be said that the explicit collocation teaching condition contributed to the ETG's form recognition of target collocations more than the subjects in the two incidental teaching groups. Of the two incidental teaching groups, IT2 performed better than IT1 in terms of recognition of the collocation forms. This shows that increased encounters with collocations during meaning-focused reading positively influenced the recognition of these forms.

4.2. Research question 2: "Which of the instructional conditions (i.e. explicit, incidental, incidental+) result in better meaning recognition of target collocations?"

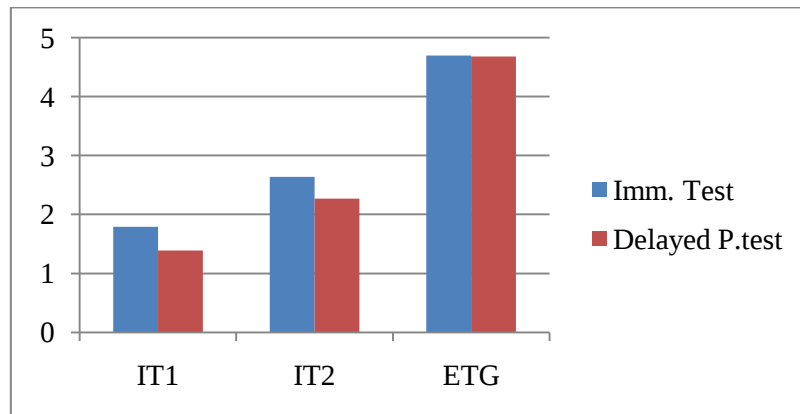
The mean scores for the MR section of the immediate test and delayed post-test are given in Table 9.

Table 9.

Immediate Test/Delayed Post-test Mean Scores for Meaning /Recognition Test

<i>Group</i>	<i>N</i>	Immediate Test		Delayed Post-test	
		<i>Mean</i>	<i>SD</i>	<i>Mean</i>	<i>SD</i>
ETG	34	4,70	1,68	4,68	1,62
IT1	38	1,79	1,41	1,39	1,26
IT2	33	2,64	1,76	2,27	1,66
Total	105	3,00	2,02	2,73	2,05

Table 9 shows the mean scores of the ETG are 4,70 for the immediate test and 4,68 for the delayed post-test in MR. it is clear the ETG obtained the highest mean scores among the three groups in the immediate test and the delayed post-test. The mean scores of the two incidental teaching groups (IT1 and IT2) are lower than the total average with IT1 having the lowest mean scores of all three groups for the immediate test, 1,79 and the delayed post-test, 1,39. The mean scores of the other incidental teaching group were 2,64 for the immediate post-test and 2,27 for the delayed post-test giving them second highest mean scores. The differences among the mean scores of three groups in the MR test section can also be observed in Graph 2.



Graph 2. Immediate Test/Delayed Post-test Mean Scores for Meaning Recognition Test

It can be observed in Graph 2 that the mean scores of the two incidental teaching groups tend to decrease slightly in the delayed post-test. That is, the subjects in the two incidental teaching conditions got lower mean scores in the delayed post-test in MR. Unlike the two incidental teaching groups, the ETG's mean scores remained at the same level in the delayed post-test.

In order to see whether the three groups differed among themselves in terms of the mean scores gained from the MR section of the test, a one-way ANOVA was performed. The results of the ANOVA are shown on the Table 10.

Table 10.

Results of Analysis of Variance Comparing the Means from Meaning Recognition Test

IMMEDIATE TEST		<i>Sum of Sq.</i>	<i>df</i>	<i>Mean Sq.</i>	<i>F</i>	<i>p</i>
Meaning Recognition Test	Between Groups	158,99	2	79,49	3,37	,000
	Within Groups	267,01	102	2,62		
	Total	426	104			
DELAYED POST-TEST						
Meaning Recognition Test	Between Groups	203,6	2	101,73	44,14	,000
	Within Groups	235,07	102	2,30		
	Total	438,53	104			

* $p < ,05$.

The results of ANOVA in Table 10 show that the performance of the three groups in the MR section of the test differed from each other significantly at $p < ,05$ level in the immediate test and the delayed post-test. In order to compare each group individually in

terms of their mean scores in MR, Tukey's post hoc analysis was performed. The results of the post hoc analyses are given on Table 11.

Table 11.

Results of Pair-wise Comparison of Mean Scores for Meaning Recognition Test

IMMEDIATE TEST				
<i>(I) Group</i>	<i>(J) Group</i>	<i>Mean Dif.</i>	<i>Std. Er.</i>	<i>p</i>
ETG	IT1	2,91 (*)	,38	,000
ETG	IT2	2,07 (*)	,39	,000
IT2	IT1	,84	,38	,076
DELAYED POST-TEST				
ETG	IT1	3,28 (*)	,35	,000
ETG	IT2	2,40 (*)	,37	,000
IT2	IT1	,87 (*)	,36	,044

* $p < ,05$

As can be seen in Table 11, the ETG outperformed IT1 and IT2 in terms of recognizing the meaning of the target collocations ($p < ,05$) in the immediate test and the delayed post-test. Also, of the two incidental teaching groups, IT2 outperformed IT1 in the delayed post-test ($p < ,05$). However, IT2's mean scores did not differ from that of IT1 in the immediate test ($p = ,076 > ,05$).

Based on comparisons of the three groups' scores, it can be said that explicit instruction of collocations contributed to learners' recognition of collocation meanings more than did the two types of incidental teaching conditions. Also, in term of recognizing collocation meanings, the influence of incidental collocation teaching through repeated encounters (IT2) is observable in the delayed post test but not in the immediate test.

4.3. Research question 3: "Which of the instructional conditions (i.e. explicit, incidental, incidental+) result in better use of target collocations in a reading cloze text?"

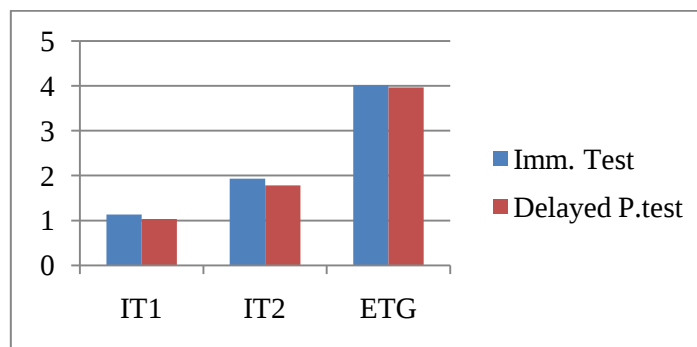
The three groups' mean scores from the reading cloze test section of the immediate test and delayed post-test are given in Table 12.

Table 12.

Immediate Test/Delayed Post-test Mean Scores for Reading Cloze Test

<i>Group</i>	<i>N</i>	Immediate Test		Delayed Post-test	
		<i>Mean</i>	<i>SD</i>	<i>Mean</i>	<i>SD</i>
ETG	34	4,02	1,64	3,97	1,59
IT1	38	1,13	1,42	1,03	1,24
IT2	33	1,93	1,69	1,78	1,51
Total	105	2,32	1,99	2,21	1,90

As can be seen in Table 12, the mean scores of the ETG are 4,02 for the immediate test and 3,97 for the delayed post-test. Hence, it can be said that the ETG obtained higher mean scores than two incidental teaching groups. Unlike the mean scores of the ETG, the mean scores of the two incidental teaching groups are lower than the total average. More precisely, the mean score of IT1 is 1,13 for the immediate test and 1,03 for the delayed post-test. Comparing the three groups, it is apparent that IT1 got the lowest mean scores in RCT. Again, the mean score of the other incidental teaching group (IT2) are 1,93 for the immediate test and 1,78 for the delayed post-test. When the mean scores of three groups are considered as a whole, it can be observed that the groups in two incidental collocation teaching conditions yielded lower mean scores in RCT. The difference in the mean scores of the three groups in RCT of the immediate test and the delayed post-test are shown in Graph 3.



Graph 3. Immediate Test/Delayed Post-test Mean Scores for Reading Cloze Test

As can be seen in Graph 3, the mean scores of the three groups obtained from the immediate test and the delayed post-test are very close. This suggests that the performance levels observed for the three groups in the delayed post-test are similar to those observed for the immediate RCT.

To determine whether the differences between the RCT mean scores of the three groups were statistically significant, a one-way ANOVA was performed. The results of that analysis are given on Table 13 below.

Table 13.

Results of Analysis of Variance Comparing the Means from Reading Cloze Test

IMMEDIATE TEST		<i>Sum of Squares</i>	<i>df</i>	<i>Mean Square</i>	<i>F</i>	<i>p</i>
Reading Cloze Test	Between Groups	157,79	2	78,90	31,53	,000
	Within Groups	255,19	102	2,50		
	Total	412,10	104			
DELAYED POST-TEST						
Reading Cloze Test	Between Groups	164,50	2	82,25	39,30	,000
	Within Groups	213,45	102	2,09		
	Total	377,96	104			

* $p < ,05$

The results of ANOVA in Table 13 show that the differences between the RCT mean scores of the three groups are statistically significant at $p < ,05$ level. It suggests that the three groups differ among themselves in terms of using their knowledge of the target collocations to fill in the gaps with the correct response in the RCT. In order to compare the three groups individually to discover specific between-group differences in RCT

mean scores, Tukey's post hoc analysis was performed. The result of the post hoc comparison of the three groups is shown on Table 14.

Table 14.
Results of Between-Group Comparisons for Reading Cloze Test

IMMEDIATE TEST				
<i>(I) Group</i>	<i>(J) Group</i>	<i>Mean Dif.</i>	<i>Std. Er.</i>	<i>p</i>
ETG	IT1	2,89 (*)	,37	,000
ETG	IT2	2,09 (*)	,38	,000
IT2	IT1	,80	,37	,086
DELAYED POST-TEST				
ETG	IT1	2,94 (*)	,34	,000
ETG	IT2	2,18 (*)	,35	,000
IT2	IT1	,76	,34	,074

* $p < ,05$

The results of post hoc comparisons of RCT mean scores in Table 14 show that the explicit teaching group outperformed the two incidental teaching groups at $p < ,05$ level in the immediate test and the delayed post-test. However, the comparison of IT1 and IT2 mean scores reveals no statistically significant differences between the two incidental teaching groups.

These findings show that collocation instruction using explicit techniques contributed to the subjects' correct use of collocations in the reading cloze test. It also shows that increasing the frequency of subjects' incidental encounters with collocations doesn't necessarily contribute to subjects' correct use of collocations in RCT.

4.4. Research Question 4: “Are there any differences between the results of the immediate test and delayed post-test for three instructional groups?”

In order to answer research question 4, a t-test was used to compare each group’s mean scores from the immediate test and the delayed post-test. Next, a repeated ANOVA was conducted to compare the three groups in terms of their retention profiles (performance as measured by immediate test and delayed post-test mean scores).

4.4.1. Results of the t-test

With the aim of revealing differences between the immediate test and the delayed post-test mean scores, a t-test analysis was conducted for each group. In Table 15, the results of the t-test analysis of the ETG’s mean scores from the four test sections (FR1, FR2, MR and RCT) are shown.

Table 15.
Comparisons of Immediate Test and Delayed Post-test scores for Explicit Teaching Group

<i>Test Section</i>	<i>Im. Test – Dl. P.test</i>	<i>N</i>	<i>Mean</i>	<i>SD</i>	<i>t</i>	<i>df</i>	<i>p</i>
FR1	Im. Test	34	7,50	,82	1,79	33	,083
	Dl. P.test	34	7,41	,86			
FR2	Im. Test	34	7,47	,89	,81	33	,422
	Dl. P.test	34	7,41	1,02			
MR	Im. Test	34	4,70	1,68	,20	33	,815
	Dl. P.test	34	4,68	1,62			
RCT	Im. Test	34	4,02	1,64	,39	33	,701
	Dl. P.test	34	3,97	1,59			

* $p < .05$

It can be observed in Table 15 that no statistically significant changes occur in the ETG’s mean scores from the four test sections. (FR1: $t=1,79$, $p>,05$; FR2: $t=,81$, $p>,05$; MR: $t=,2$, $p>,05$; RCT: $t=,39$, $p>,05$). This means that subjects who were taught collocations explicitly

carried over their mean scores from the four test sections in the immediate post-test to the delayed post-test without significant losses. In other words, recognition of collocation forms/meaning and correct use of collocations demonstrated by subjects in the ETG in the immediate test was not subject to attrition.

The results of t-test analysis of IT1's immediate test and delayed post-test mean scores are shown in Table 16.

Table 16.
Comparisons of Immediate Test and Delayed Post-test scores for Incidental Teaching Group 1

<i>Test Section</i>	<i>Im. Test – Dl. P.test</i>	<i>N</i>	<i>Mean</i>	<i>SD</i>	<i>t</i>	<i>df</i>	<i>p</i>
FR1	Im. Test	38	5,05	1,68	2,69 (*)	37	,011
	Dl. P.test	38	4,82	,83			
FR2	Im. Test	38	5,07	1,66	2,94 (*)	37	,006
	Dl. P.test	38	4,76	1,68			
MR	Im. Test	38	1,79	1,41	2,0 (*)	37	,017
	Dl. P.test	38	1,39	1,26			
RCT	Im. Test	38	1,13	1,42	,681	37	,500
	Dl. P.test	38	1,03	1,24			

* $p < ,05$

Results of t-test comparison of IT1's mean scores in Table 16 show that except for the RCT ($t = ,681$, $p > ,05$) statistically significant changes occurred in the delayed post-test performance of IT1. In other words, subjects' mean scores in the delayed post-test decreased in FR1 ($t = 2,69$, $p < ,05$), FR2 ($t = 2,94$, $p < ,05$) and MR ($t = 2,5$, $p < ,05$) sections of the test but not in RCT. This means that learning gains resulting from the incidental teaching of collocations are

subject to losses for this section of the test. The finding that the mean scores of IT1 in the RCT section of the test did not change significantly in the delayed post-test can be explained by the low initial mean scores of that group. That is, since their RCT mean scores were already low in the immediate test, significant changes did not occur in the delayed post-test. The results of the t-test comparisons of IT2's mean scores from the immediate test and delayed post-test sections are shown in Table 17.

Table 17.
Comparisons of Immediate Test and Delayed Post-test scores for Incidental Teaching Group2

<i>Test Section</i>	<i>Im. Test – Dl. P.test</i>	<i>N</i>	<i>Mean</i>	<i>SD</i>	<i>t</i>	<i>df</i>	<i>p</i>
FR1	Im. Test	33	6,03	1,38	1,98	32	,057
	Dl. P.test	33	5,85	1,52			
FR2	Im. Test	33	6,06	1,49	2,25 (*)	32	,032
	Dl. P.test	33	5,88	1,45			
MR	Im. Test	33	2,64	1,76	4,28 (*)	32	,000
	Dl. P.test	33	2,27	1,66			
RCT	Im. Test	33	1,93	1,69	1,15	32	,258
	Dl. P.test	33	1,78	1,51			

* $p < ,05$

As shown in Table 17, statistically significant losses can be observed IT2's mean scores from FR2 ($t=2,25$, $p<,05$) and MR ($t=4,28$, $p<,05$) sections of the delayed post-test. On the other hand, no statistically significant changes are observed for FR1 ($p>,05$) and RCT ($p>,05$) sections of the delayed post-test. This shows that the incidental teaching of collocations through repeated encounters was effective for the delayed post-test performance in FR1 and RCT sections of the test.

The fact that the FR1 mean scores of IT2 did not change significantly in the delayed post-test

but their FR2 mean scores did can be explained by the type of tests used in the two form recognition tests. In the FR1 section of the test a multiple choice test format was used, while a matching test format was used in FR2. This might have had an effect on the subjects' performance in the two form recognition tests.

4.4.2. Results of Repeated ANOVA

In the section 4.4.1, each group's immediate test and delayed post-test mean scores were compared using t-test analysis. In this section, the three groups were compared in terms of their retention profiles i.e. performance as measured by the immediate test and delayed post-test. For this purpose, a repeated ANOVA was carried out to compare each group in terms of their retention profiles for each test section. In Table 18, repeated ANOVA result for FR1 and Fr2 sections of the test are shown.

Table 18.

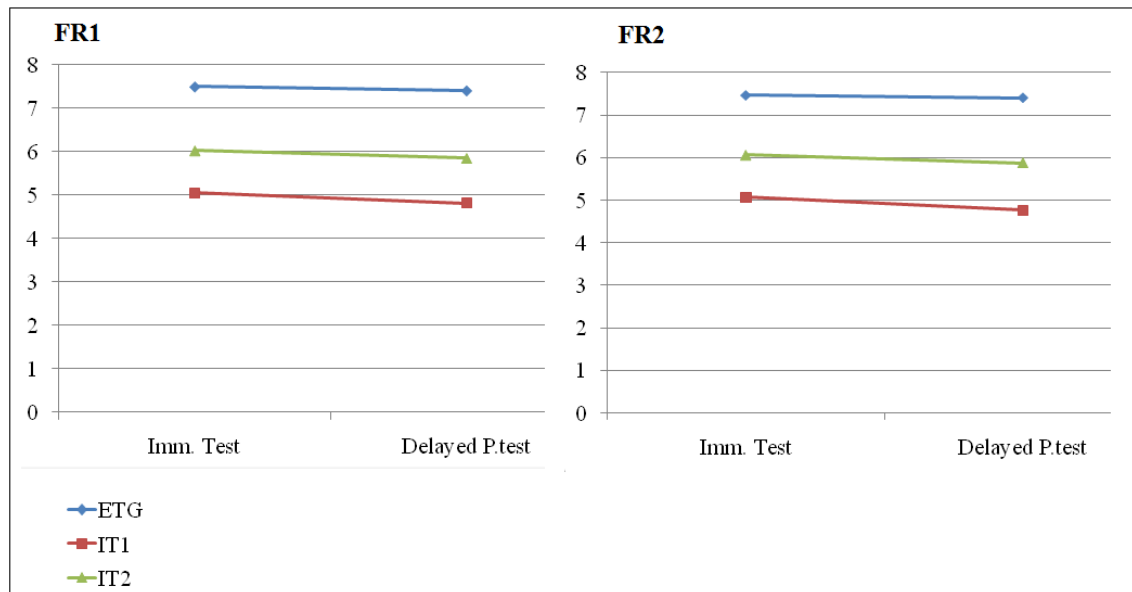
Group-wise Comparison of Retention Profiles for Form Recognition Test 1 and 2

Form Recognition Test 1		<i>Im. Test</i>		<i>Del. P.test</i>		Repeated ANOVA	
<i>Group</i>	<i>N</i>	<i>Mean</i>	<i>SD</i>	<i>Mean</i>	<i>SD</i>	F (df=2)	P
ETG	34	7,50	,82	7,41	,86	,91	,40
IT1	38	5,05	1,68	4,82	,83		
IT2	33	6,03	1,38	5,85	1,52		
Total	105	6,15	1,69	5,98	1,82		

Form Recognition Test 2							
ETG	34	7,47	,89	7,41	1,02	2,09	,13
IT1	38	5,07	1,66	4,6	1,68		
IT2	33	6,06	1,49	5,88	1,45		
Total	105	6,16	1,71	5,97	1,79		

* $p < ,05$

The results of repeated ANOVA in Table 18 show that no statistically significant differences occurred among three groups in terms of their retention patterns (FR1: $F=,91$, $p>,05$; FR2: $F=2,09$, $p>,05$). The comparison of these retention profiles for FR1 and FR2 can be also observed in Graph 4.



Graph 4. Group-wise Comparison of Retention Profiles for Form Recognition Test 1 and 2

As can be observed in the lines representing three groups in the Graph 4, the retention profiles of the three groups did not differ from each other in FR1 and FR2. Since no sharp upward / downward trends are observed in three lines on Graph 4, retention profiles of the three groups do not differ for FR1 and FR2. Or, to put differently, the subjects in the explicit and the two incidental teaching conditions showed similar retention profiles in recognizing the formal aspects of target collocations.

The comparisons of the three groups' retention profiles for the meaning recognition test are shown in Table 19.

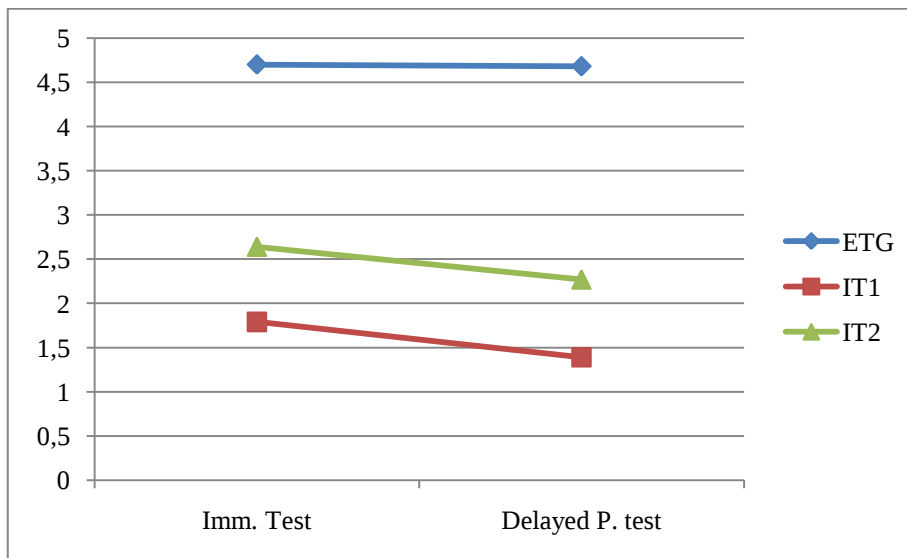
Table 19.

Group-wise Comparison of Retention Profiles for Meaning Recognition Test

<i>Group</i>	<i>N</i>	<i>Im. Test</i>		<i>Del. P.test</i>		Repeated ANOVA	
		<i>Mean</i>	<i>SD</i>	<i>Mean</i>	<i>SD</i>	F (df=2)	P
ETG	34	4,70	1,68	4,68	1,62	2,14	,122
IT1	38	1,79	1,41	1,39	1,26		
IT2	33	2,64	1,76	2,27	1,66		
Total	105	3,00	2,02	2,73	2,05		

* $p < ,05$

The results of ANOVA in Table 19 show that the three groups do not differ significantly among themselves in terms of their retention profiles ($F=2,14$, $p>,05$). The comparison of each groups' retention profiles for meaning/ recognition of target collocations is shown in Graph 5.



Graph 5. Group-wise Comparison of Retention Profiles for Meaning Recognition Test

As can be observed in Graph 5, the lines representing the retention profiles of each group follow a similar path. That is, no sharp upward or downward trend is observable, which indicates similarities across three groups in terms of their retention profiles in MR.

The results of the comparison of the three groups in terms of their retention profiles for the reading cloze test are shown in Table 20.

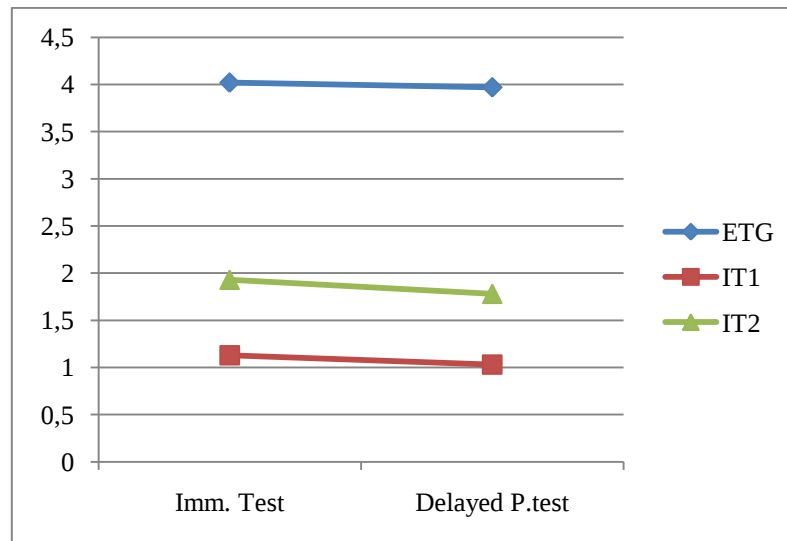
Table 20.

Group-wise Comparison of Retention Profiles for Reading Cloze Test

<i>Group</i>	<i>N</i>	<i>Im. Test</i>		<i>Del. P.test</i>		Repeated ANOVA	
		<i>Mean</i>	<i>SD</i>	<i>Mean</i>	<i>SD</i>	F (df=2)	p
ETG	34	4,02	1,64	3,97	1,59	,094	,90
IT1	38	1,13	1,42	1,03	1,24		
IT2	33	1,93	1,69	1,78	1,51		
Total	105	2,32	1,99	2,21	1,90		

* $p < ,05$

The results of the repeated ANOVA in Table 20 shows that the three groups did not differ among themselves significantly in term of their retention patterns ($F=,094$, $p>,05$). The comparison of each groups' retention profiles for the reading cloze test is shown in Graph 6.



Graph 6. Group-wise Comparison of Retention Profiles for Reading Cloze Test

It can be observed in Graph 6 that none of lines representing three groups' retention profiles follow a sharp downward or upward trend. This shows that the lines representing the retention profiles of subjects in three groups follow a similar path on the graph. To put it differently, the retention profiles of three groups in the reading cloze test are similar.

To sum up the findings above, it can be concluded that the three groups do not significantly differ from each other in terms of their retention profiles for FR1, FR2, MR and RCT.

4.5. Discussion of Findings

The present study demonstrated that the subjects who received explicit instruction showed higher learning gains than those who received meaning-focused instruction of the target items. The better performance of the subjects in the explicit teaching condition can be plausibly explained by the nature of the instructional tasks performed in that group during the treatment sessions. The practice tasks used in the explicit teaching condition were; form-detection, definition-matching, fill-in-blank exercises, and translation / paraphrasing. These tasks were designed to direct the subjects'

conscious attention to the formal and semantic aspects of the target items. Underlying the use of explicit tasks was the assumption that for learners to notice the input (i.e. formal and semantic aspects of collocations in the context of present study) they need to, consciously or unconsciously, attend to the input (Schmidt, 1990).

Considering the higher retention levels observable in the ETG's scores, it could be said that completion of the explicit teaching tasks helped subjects in that group selectively attend to the formal and semantic aspects of collocations. From the perspective of attention and noticing, it appears that explicit instruction of target items caused subjects in the explicit instructional condition to develop an awareness of the various features of the target items. This is consistent with Schmidt's (1990) statement that "noticing is the necessary and sufficient condition for converting input into intake" (p.129).

As evidenced in previous studies, a close relationship exists between explicit teaching and awareness at the level of noticing. More precisely, higher levels of awareness are associated with more explicit teaching conditions and learners with greater awareness have an increased ability to recognize and produce target forms than those with less awareness (Leow, 2000).

That the explicit teaching condition in the study led to higher learning gains also lends credence to the notions of *depth of processing*, which considers that learners' richer elaboration of various features of the input at a deeper cognitive level plays a key role in learning (Hulstijn, 2001). For the present study, it is apparent that explicit instructional focus on the target items led to richer elaboration, and this in turn led to higher learning gains for subjects in the ETG.

Analysis of explicit instruction studies shows that explicit and targeted instruction results in greater learning gains than implicit forms of instruction (Norris and Ortega, 2000). As Takahashi (2001) stated, "lots of previous studies provided evidence that high levels of attention-drawing activities are more helpful for learners in gaining the mastery of target-language structures than simple exposure to positive evidence" (p.171).

Many studies can be found in the literature on explicit teaching research. Most of them compare explicit and meaning-focused teaching of target linguistic items. In those

studies, the linguistic items targeted during instructional treatments are usually morphosyntactic regularities in language. When the findings of those studies are examined, it can be seen that the explicit form-focused teaching of morphosyntactic regularities of L2 leads to more learning gains than implicit and meaning-focused teaching modalities. In this regard, the finding of the present study lends support to findings of those studies. Nevertheless, since the focus of the present study is on the instruction of lexical rather than morphosyntactic aspects of language, the findings obtained from the study will be directly related only to those studies conducted on teaching lexical aspects of language.

In terms of teaching collocational aspects of words, the superior performance observed in the explicit teaching condition in the current study supports the findings of previous studies, which investigated the effects of explicit teaching on learners' retention of collocations. For example, Ordem's (2005) study found that explicit teaching tasks completed by students contributed significantly to the subjects' knowledge of collocations. Chan and Liou's (2005) study found that explicit teaching using CALL instruction significantly contributed to learners' acquisition of collocations. Also, Webb and Kagimoto (2009) showed that explicit teaching contributed to learners' receptive and productive knowledge of collocations.

Again, the efficacy of explicit teaching found in the study is consistent with the findings of vocabulary teaching studies. For example, in her study Laufer (2003) found that explicit vocabulary teaching tasks involving the use of target words in productive tasks resulted in better learning of vocabulary items than meaning-focused teaching. In a comparative study of explicit and incidental teaching of vocabulary instruction Wang (2005) showed that explicit teaching of vocabulary items was more beneficial than reading-only condition. Similarly, Shui-shing (2006) found that the explicit teaching was more effective than incidental teaching in his investigation of the effects of the two vocabulary teaching methods. In their experimental study, Sonbul and Schmitt (2010) demonstrated that explicit vocabulary teaching tasks resulted in greater learning gains than incidental vocabulary teaching. In a study comparing the efficacy of incidental and explicit vocabulary teaching in a reading-only condition and reading + explicit vocabulary teaching condition, Paribakht and Wesche (1997) found that subjects who

received explicit vocabulary teaching had more vocabulary gains than those in the reading-only condition. Zimmerman (1997) found that explicit vocabulary teaching activities involving interactive vocabulary exercises after reading comprehension tasks led to more learning gains than an incidental teaching condition that involved only reading. In a study with a quite similar design to the present study, Min (2008) found that explicit vocabulary teaching condition was better than the narrow reading condition in terms of retention of target vocabulary. Hulstijn and Laufer's (2001) study investigating the effect of word-focused tasks found that the explicit teaching of vocabulary items using composition writing tasks was more beneficial than implicit vocabulary teaching methods. Also, a replication study by Gregory (2008) found results similar to that of Hulstijn and Laufer's original study.

Considering the overall results of the current study, it can be concluded that the explicit teaching tasks that focused learners' conscious attention on the formal and semantic aspects of the target items resulted in higher learning gains than the incidental, meaning-focused instructional conditions. The study also showed that while significant decreases occurred in the mean scores of the two incidental teaching groups at the time of delayed post-test, the ETG subjects' scores did not change significantly. This shows that explicitly taught knowledge of target items is less subject to attrition than implicitly taught knowledge.

5. CONCLUSION

5.1. Summary of the study

The study set out to examine the effects of explicit and incidental teaching on intermediate-level subjects' learning of formal and semantic aspects of L2 collocations. For this purpose, eight target items (verb+noun collocations) were taught in three instructional conditions i.e an explicit teaching condition and two incidental (meaning-focused) teaching conditions. A total of 105 subjects were assigned to three different groups that were taught collocations in one the following conditions; *explicit teaching condition* (ETG), *incidental learning + input frequency* (IT2) and *incidental learning* (IT1). In the incidental collocation teaching condition with subjects in IT2, the role of input frequency (i.e. meaning-focused repeated encounters with collocations) in the acquiring of collocations was put to test. For this purpose, a total of twelve reading texts was modified and embedded with target collocations. The subjects in the incidental teaching condition involving input frequency encountered target collocations in twelve texts while those in the other incidental teaching condition (IT1) read half the number of texts (i.e. six texts) read by the subjects in IT2. For the explicit collocation teaching condition, six sets of collocation-focused activities were created and they supplemented the six reading texts. Each practice-set contained (i) form-detection, definition-matching, (ii) gap-filling exercises, (iii) translation and (iv) paraphrasing tasks.

In order to measure subjects' retention of the collocations, immediate and delayed post-tests were used. The four sections in the post-tests separately measured recognition of collocation forms and meanings as well as the correct use of collocations in a reading cloze-test. More precisely, to measure recognition of collocation forms, a multiple choice and a verb + noun matching test was used. And to measure the subjects' recognition of the meanings of collocations, a definition matching test was used. The final section of the post-tests measured the subjects' correct use of collocations in a reading cloze test.

Analysis of the results of both the immediate and the delayed post-tests revealed that explicit instruction was more effective than the two incidental instructional conditions in terms of learning the formal and semantic aspects of the target items. It was also

found that knowledge acquired from the explicit teaching condition was not prone to attrition as revealed by the delayed post-test. The analysis of the results from post-tests demonstrated that the two incidental learning conditions can lead to some learning gains. In the study, attrition of acquired knowledge was observed in both of the incidental learning groups' scores from the delayed post-tests. However, as stated before, no significant decreases were observed in the explicit instruction group's knowledge of collocations during delayed post-testing.

Taken together, the findings obtained from the study suggested that explicit instruction was effective for learners' acquisition of the formal and semantic aspects of the target items and that knowledge acquired from explicit instruction was less prone to attrition than incidentally gained knowledge. The study also showed that of the two incidental collocation teaching conditions, the one that afforded learners more frequent exposure to collocations led to comparatively more learning gains in terms of acquiring formal aspects of collocations. However, compared to the explicit teaching condition, the efficacy of the two incidental teaching conditions was rather weak.

5.2. Pedagogical implications

The study found that the quality and quantity of the information processing invested in processing target linguistic items in explicit teaching condition was the key to subsequent learning of those items. Based on the results of the study, implications for L2 pedagogy can be drawn regarding explicit teaching of linguistic items (such as novel words and collocations).

In instructed language contexts, a purely meaning-focused processing of linguistic items/features usually results in subliminal and shallow processing of the items. This may not always suffice for the retention target linguistic items/features though. To overcome the disadvantages of meaning-focused teaching of linguistic items/features explicit teaching may be chosen by teachers.

Explicit teaching can afford learners the opportunity to develop and test hypotheses in their learning and to generate responses according to the explicitly presented knowledge about the target linguistic items. In this regard, it could be safe to say that explicit

instruction can benefit learners by directing their conscious attention on the target linguistic items and help them commit them deliberately to their memory.

Again, explicit instruction would be particularly useful for teaching target linguistic items which may be complex or indistinguishable and may cause confusion for learners. Such complex linguistic features/items may not be readily discovered or worked out from the input alone by learners. In those cases, explicit instructional techniques can be employed by teachers. By bringing the complex and confusing features/items to the attention of learners, explicit instructional tasks would facilitate the learning these items.

Considering the points above, it can be said that designing explicit teaching activities which draw learners' conscious attention to linguistic items can help learners develop an awareness of various aspects of the target linguistic items. By using explicit instruction, learners can learn the targeted linguistic items directly rather than inferring and searching for the patterns indirectly. It would for that reason be advisable to adopt explicit attention-promoting tasks and devices that promote deeper level processing of target linguistic items and higher level of task involvement.

In terms of teaching lexical aspects of language, this means cultivating deeper level of processing lexical items in learners and explicitly teaching the form-meaning mappings of words and constraints underlying their usage. Overt attention to semantic and formal features of lexical items as well as constraints on their usage (such as collocational restrictions) can help learners to better process and consolidate their knowledge of the target words. For this purpose, teachers can engage learners in actively processing lexical items by analyzing their form and meaning. They can allocate certain classroom time to explicit teaching of lexical items using a variety of activities such as;

- elaboration of formal features of words such as affixes and roots.
- providing associations with other words that give clues as to the meaning of the target word.
- promoting dictionary activities
- using semantic mapping and semantic grids
- providing synonyms and antonyms

- having students keep a record of vocabulary taught
- matching parts of collocations

It may be recommended to use explicit instructional activities to teach high-frequency words or academic vocabulary in particular, because learners are likely to encounter them often. By explicitly teaching the most frequent words in language, teachers can promote further learning of words. This is because explicit teaching of frequent lexical items would help them reach the lexical threshold level required for reading authentic texts.

Another relevant consideration in instructed language teaching is the explicit teaching of non-salient forms. It is usually acknowledged that salient linguistic items are easier for learners to take notice of than less salient items in language. Comprehension difficulties caused by the linguistic items are an important determinant of saliency. Given that most collocations in language do not prevent learners from comprehending the message, it can be said that collocations may not be salient enough for learners to notice them in language input. This means that a learner may receptively know a collocation but s/he may not know it productively. Considering this limitation, teachers may choose to explicitly focus on collocations by drawing learners' conscious attention to these items. Compared to implicit teaching modalities, explicit teaching may offer more pedagogical benefits for teaching no-so-salient forms/items.

5.3. Suggestions for Further Research

The present study compared the efficacy of explicit and incidental teaching in terms of learners' retention of verb + noun collocations. For this purpose, the tasks which practice formal and semantic aspects target items were used for explicit teaching condition. All these explicit teaching tasks featured decontextualized teaching of target items in their minimal contexts. However, explicit teaching may not necessarily mean teaching targeted items in isolation. Contextualized explicit teaching can also be used. Further studies can examine the efficacy of different types of explicit practice tasks in teaching individual lexical items or collocations. In this regard, explicit teaching of target items using texts that contain gap-filling exercises can be tested. For example, the texts used in the study can be adapted for this purpose. Accordingly, the target items in

the texts can be omitted so that subjects are asked to provide the target items presented separately along with their definitions. With those modifications, a different study may investigate the effects of explicit contextualized teaching of collocations and even compare it with explicit decontextualized teaching methods.

Again, different types of explicit teaching methods can be compared. In this regard, further studies may investigate the advantages/disadvantages of using learners' native language to practice the target items during explicit teaching. For example, in the present study, sentence translation technique was used along with paraphrasing to explicitly teach target collocations. A different study may look at how the two explicit teaching tasks can contribute learning of target items. Sentence translation tasks and paraphrasing tasks can be compared as two types of explicit teaching.

In the study the learning gains resulting from explicit and incidental teaching methods were measured using explicit knowledge tests. Further studies may also use different testing methods/instruments to determine to what extent explicit and incidental instruction effectively promoted implicit knowledge of the target items. To this end, presence of target items in written productions such as essays and spoken productions can be checked. After all, if one wants to make claims about the effect of instruction, it is important to understand precisely how target items emerge in the L2 learner's actual language use.

Considering the limited number of subjects involved in the study, it must be warned that the conclusions drawn from the study need to be interpreted with caution. With a larger number of subjects, it would be possible to make wider generalizations from the study results. Hence, further studies with larger number of subjects are needed to verify the findings resulting from the study. The attrition of the learning gains in the study was measured with a delayed post-test, which was given three weeks after the completion of the instructional treatment. A second delayed post-test can be given after a time lapse of two months to measure retention of the learning gains. In this way, it could be possible to better understand the effect of instructional treatments in the longer term.

The subjects in the study were intermediate level students. The study might yield different results with subjects from higher proficiency levels. The effect of explicit and

implicit instruction can be different with advance level learners. Hence, further studies can be conducted with similar design but advance level subjects.

APPENDICES

APPENDIX I

COLLOCATION FAMILIARITY TEST

Aşağıda verilen seçeneklerden doğru olanını belirtiniz ve Türkçe anlamını biliyorsanız verilen boşluğa yazınız.

- | | | | |
|----------------------------|--------------------------|-------------------------|-------|
| 1. a) do damage | b) make damage | c) run damage | ..... |
| 2. a) turn out a fire | b) put out a fire | c) set out a fire | ..... |
| 3. a) hold discussions | b) do discussions | c) set discussions | ..... |
| 4. a) receive cold | b) fetch cold | c) catch cold | ..... |
| 5. a) do a visit | b) lay a visit | c) pay a visit | ..... |
| 6. a) strike a pose | b) beat a pose | c) hit a pose | ..... |
| 7. a) fell tears | b) shed tears | c) raise tears | ..... |
| 8. a) employ one's rights | b) exercise one's rights | c) conduct one's rights | ..... |
| 9. a) pull an opportunity | b) seize an opportunity | c) catch an opportunity | ..... |
| 10. a) press charges | b) run charges | c) push charges | ..... |
| 11. a) lend a complaint | b) perform a complaint | c) lodge a complaint | ..... |
| 12. a) make a conclusion | b) pull a conclusion | c) draw a conclusion | ..... |
| 13. a) commit a crime | b) comply a crime | c) conduct a crime | ..... |
| 14. a) tell a prayer | b) say a prayer | c) speak a prayer | ..... |
| 15. a) give a speech | b) hold a speech | c) perform a speech | ..... |
| 16. a) strike a deal | b) set a deal | c) step a deal | ..... |
| 17. a) go on a journey | b) do a journey | c) pull a journey | ..... |
| 18. a) keep one's breath | b) house one's breath | c) hold one's breath | ..... |
| 19. a) direct an orchestra | b) conduct an orchestra | c) control an orchestra | ..... |
| 20. a) lose count | b) drop count | c) pass count | ..... |
| 21. a) take root | b) make root | c) stick root | ..... |
| 22. a) hold a secret | b) keep a secret | c) last a secret | ..... |
| 23. a) take one's revenge | b) make one's revenge | c) obtain one's revenge | ..... |
| 24. a) keep a diary | b) run a diary | c) lead a diary | ..... |

25. a) brush shoes	b) polish shoes	c) sweep shoes	.....
26. a) make apologies	b) do apologies	c) lay apologies	.....
27. a) ties one's fist	b) fix one's fist	c) clench one's fist	.....
28. a) strike a fuse	b) knock a fuse	c) blow a fuse	.....
29. a) show heed	b) pay heed	c) spread heed	.....
30. a) make an escape	b) take an escape	c) draw an escape	.....
31. a) lose faith	b) drop faith	c) cut faith	.....
32. a) perform a survey	b) commit a survey	c) conduct a survey	.....
33. a) push a bike	b) lead a bike	c) walk a bike	.....
34. a) send judgment	b) pass judgment	c) set judgment	.....
35. a) say one's mind	b) speak one's mind	c) talk one's mind	.....
36. a) spoil the fun	b) break the fun	c) destroy the fun	.....
37. a) earn a purpose	b) win a purpose	c) serve a purpose	.....
38. a) make friends	b) create friends	c) gain friends	.....
39. a) make measures	b) take measures	c) stick measures	.....
40. a) speak shop	b) say shop	c) talk shop	.....
41. a) defeat a purpose	b) break a purpose	c) refuse a purpose	.....
42. a) reply to the door	b) respond to the door	c) answer the door	.....
43. a) lay birth	b) give birth	c) bring birth	.....
44. a) close a habit	b) break a habit	c) lay a habit	.....
45. a) earn access	b) take access	c) gain access	.....
46. a) run the streets	b) walk the streets	c) stroll the streets	.....
47. a) take harm	b) do harm	c) make harm	.....
48. a) make progress	b) take progress	c) gain progress	.....
49. a) let bombs	b) drop bombs	c) fell bombs	.....
50. a) do sacrifices	b) give sacrifices	c) make sacrifices	.....

APPENDIX II

READING TEXTS

TEXT 1

Please read the text and answer the questions

Do we really need to sleep?

A good night's sleep serves a purpose because it has a powerful effect on all our lives. Our brain needs to rest for several hours to rest. It doesn't spend the sleep this time inactive. During this time it seizes the opportunity to record information we experience during the day. Later, when we need to gain access to information about these past experiences we have no difficulty remembering. Thus, sleeping plays an important role in learning.

Many sleep researchers conducted surveys on average sleep time. They found that most people need an average of seven hours of sleep every day. However, if you think seven hours of sleep is too much, then pay heed to findings of new research by a sleep researcher Ray Meddle. He suggests that we don't really need to sleep at all. We sleep only because our brain is 'programmed' to sleep. He believes that the need to sleep took root during prehistoric times when primitive man was 'programmed to sleep to protect himself from the darkness with its many dangers. Like humans animals are similarly programmed. Some need more sleep than others. Horses, cows, sheep and elephants sleep only 2-3 hours. But cats sleep for 14 hours a day.

According to Dr Meddis, a chemical mechanism in the brain makes us sleep. We are 'programmed' to feel 'tired' or 'sleepy' at midnight. Dr Meddis believes that the uncomfortable feeling when we don't sleep enough is not because we have not rested but because we have not followed our brain's programming. The longer we don't sleep, the worse we feel. Based on all this, Dr Meddis draws the conclusion that if scientists could find and 'turn off' the sleep mechanism in our brain that produces tiredness, we could live completely normal and healthy lives without sleeping.

So is sleeping a waste of time? Well, even Dr Meddis accepts the great psychological value of sleep but still he asks us, 'if scientists make progress in inventing a medicine which, if you took it, would keep you awake forever, would you take it?'

(English File Intermediate Student's book)

Please match the following words with their correct definitions by writing the numbers in front of the words. There are two extra definitions.

- | | |
|--------------------------------|--|
| <i>effect</i> (n) | 1) act of not using something wisely, effectively |
| <i>record</i> (v) | 2) the way in which an event, action, or person changes someone or something |
| <i>inactive</i> (adj) | 3) not wanting to eat |
| <i>prehistoric</i> (adj) | 4) the reason for doing something |
| <i>primitive</i> (adj) | 5) belonging to a simple way of life that existed in the past |
| <i>protect</i> (v) | 6) to keep someone or something safe from harm |
| <i>similarly</i> (adv) | 7) in the same way |
| <i>rest</i> (v) | 8) to stop working or doing an activity for a time and sit down or lie down to relax |
| <i>awake</i> (adj) | 9) not sleeping |
| <i>waste</i> (n) | 10) to store information |
| | 11) not working |
| | 12) relating to the time in history before anything was written down |

Please answer the following questions by indicating the correct choice. You will be given 5 minutes to complete the task.

1. According to text why do we need to sleep?
 - A) Our bodies need to rest
 - B) Our brains need to rest
 - C) We need to exercise our brain during sleep
 - D) Our body uses extra energy during sleeping

2. Why does author say that sleep is important for learning?
 - A) because we experience new information during sleep
 - B) because sleep helps us to forget unimportant details.
 - C) because sleeping helps to record new information
 - D) because sleeping makes the body stronger

3. Which of the following is not true according to the text?
 - A) Our bodies do need to sleep but not our brains
 - B) Our bodies are programmed to sleep
 - C) Primitive man had to sleep too
 - D) Animals too need to sleep

4. According to the text, why did primitive man have to sleep?
 - A) He needed to rest his body after an active day spent hunting
 - B) He couldn't find animals to hunt during the day
 - C) It was too dangerous for him to walk around at night
 - D) He couldn't see at night so couldn't go hunting

5. We can infer from the passage that
 - A) We may not need to sleep in future
 - B) Animals will sleep less in the future
 - C) Children need to sleep more than adults
 - D) Sleeping is in fact is a waste of time

READING TEXT 2

Please read the following text and answer the questions

Fear and phobias

Fear is an important feeling. It serves a purpose in protecting the body. When there is a sign of danger certain chemicals are sent to blood. These help us to gain access to our body's reserve energy to avoid danger. For example, blood is goes to the muscles to make them stronger, sweating increases to cool the muscles and faster breathing provides more oxygen.

Looking at all symptoms of fear, one may draw the conclusion that we should always avoid this feeling. However, for many people feeling of fear can even be exciting and enjoyable. To experience the "joy of fear" we enjoy horror films or do extreme sports. But some people experience fears for reasons that are not clear. Such fears usually start during childhood. Many of these childhood fears, such as fear of the dark or of storms, disappear as the child gets older. But for some people the fear gradually takes root and doesn't go away. For this reason, parents should pay heed to signs of phobia in their children's behavior and get professional help.

Phobias are unreasonable fears. They can be so strong that they may send your mind into panic and stop your body's functioning. Researchers have conducted surveys on the common types of phobias. They found that the most common phobias are a fear of heights, closed spaces, spiders, or flying. But there are many other uncommon phobias too, like the fear of water or even fear of going to the hairdresser's.

Most phobias can be treated, often by discussing them and learning about what you fear. There are many people who have phobias but live normal lives. They try to understand their problem better and learn to solve it. As people start to understand their feelings better they certainly make progress in fighting these unreasonable fears. Only after you feel that you are getting in charge of the fear, you should seize the opportunity to fully control it. The important thing is to do something about controlling the fear before it begins to control you.

(New Streetwise Intermediate by Oxford)

Please match the following words with their correct definitions by writing the numbers in front of the words. There are two extra definitions.

- | | |
|--------------------------------|--|
| <i>treat</i> (v) | 1) to try to cure an illness or injury by using drugs, hospital care, operations etc |
| <i>phobia</i> (n) | 2) to become impossible to see any longer |
| <i>disappear</i> (v) | 3) a strong unreasonable fear of something |
| <i>breathing</i> (n) | 4) enjoyable |
| <i>solve</i> (v) | 5) the process of taking air in and out of body |
| <i>reason</i> (n) | 6) to feel a particular emotion, pain etc |
| <i>pleasurable</i> (adj) | 7) to keep someone or something safe from harm, damage, or illness |
| <i>experience</i> (v) | 8) continuing or travelling a great distance from one place to another |
| <i>uncommon</i> (adj) | 9) the cause or explanation for something that happens |
| <i>protect</i> (v) | 10) rare or unusual |
| | 11) to find the correct answer to a problem or the explanation for something that is difficult to understand |
| | 12) to say things to someone as part of a conversation |

Please answer the following questions by indicating the correct choice. You will be given 5 minutes to complete the task.

1. Why does the writer think that fear is an important feeling?
 - A) It is a good exercise
 - B) It helps protect our body
 - C) It relaxes our body
 - D) It makes us sweat

2. When we experience fear
 - A) we start to get cold
 - B) our body uses less oxygen
 - C) we start to feel tired
 - D) muscles get more blood

3. According to the text, people who enjoy fear
 - A) do dangerous sports
 - B) live longer
 - C) need to exercise more
 - D) are usually afraid of the dark

4. According to the text a person with phobias.....
 - A) have unhealthy eating habits
 - B) wants to live a lonely life
 - C) has fears that cannot be explained
 - D) likes the joy fear

5. We can infer from the passage that
 - A) doctors can treat phobias
 - B) people are born with phobias
 - C) children have more phobias than adults
 - D) a lot of stress can cause phobias

READING TEXT 3

Please read the following text and answer the questions

Genetically Modified Food

Farmers used to grow crops which had been grown for thousands of years. But some farmers stopped growing such crops any more. The gene technology today has made progress and new types of crops were invented. More and more farmers today want to gain access to the seeds of these new types of crop. This is because crops from these genetically changed seeds grow faster and are stronger. They are stronger than traditional crops against diseases. For this reason, farmers want to seize the opportunity. They hope to make more money by growing genetically modified crop or GM.

Researchers in the USA conducted surveys at supermarkets about GM food. They found that some Americans are not happy with GM food. They think it is very difficult for them to know whether they are buying GM food or not. This is because information about GM food is not written on the packaging of the food in America. In Western Europe, however, things are very different. In almost any supermarket in Europe labels on food packaging read "GM-free." This is because Europeans usually pay heed to labels on food packaging. In this way they can know if the product have been genetically modified or not.

Most scientists say that GM food is harmless. However the consumption of GM food hasn't taken root in Europe. Europeans look differently at genetically modified food. They worry about the negative effects of growing and eating GM food. They think that GM food might have bad effects on their health and the environment. And also, they are especially sensitive to this issue because of the importance of food to their culture.

In the United States, however, scientists and farmers who produce GM food disagree with such views. They argue that GM food is not only harmless but actually beneficial to humanity. They think that farmers who grow GM crops can produce more food in a shorter period of time. In that way, GM products can help avoid hunger in parts of the world suffering from food shortages. Considering the benefits of GM food they draw the conclusion that GM food crops serve a purpose in fighting world hunger.

(Password Longman)

Please match the following words with their correct definitions by writing the numbers in front of the words. There are two extra definitions.

- | | |
|-------------------------------|---|
| <i>crop</i> (n) | 1) a plant such as wheat, rice, or fruit that is grown by farmers and used as food |
| <i>invent</i> (v) | 2) the container or material that a product is sold in |
| <i>packaging</i> (n) | 3) to make, design, or think of a new type of thing |
| <i>grow</i> (v) | 4) someone who is ready to help |
| <i>consumption</i> (n) | 5) to make plants or crops develop and produce fruit or flowers |
| <i>modified</i> (adj) | 6) more than usual or more than others |
| <i>especially</i> (adv) | 7) the act of buying and using products |
| <i>beneficial</i> (adj) | 8) changed |
| <i>hunger</i> (n) | 9) unable or unlikely to hurt anyone or cause damage |
| <i>harmless</i> (adj) | 10) having a good effect |
| | 11) lack of food, especially for a long period of time, that can cause illness or death |
| | 12) to ask someone if they would like to have something |

Please answer the following questions by indicating the correct choice. You will be given 5 minutes to complete the task.

1. According to text GM crops.....
 - A) are invented by farmers.
 - B) are invented by the gene technology.
 - C) have been grown for centuries.
 - D) can grow only in laboratories.

2. Many farmers today want to grow GM crops because
 - A) they want earn more money.
 - B) buyers pay more money to GM food.
 - C) they can't grow traditional crops anymore.
 - D) traditional crops carry diseases.

3. Which of the following is not true according to the text?
 - A) Americans eat more GM food than Europeans.
 - B) In Europe food labels give clear information about GM food.
 - C) GM food is safer to eat than traditional food.
 - D) European buyers pay attention to what they eat.

4. According to the text, some farmers and scientists think that
 - A) GM food can be an answer to hunger problem in the world.
 - B) GM food which is grown in America is tastier.
 - C) European governments should ban crops which are not GM.
 - D) GM food is more nutritious because it has more vitamins and minerals.

5. We can infer from the passage that
 - A) it may take years for GM food to become accepted by most people.
 - B) GM food is certainly not good for health.
 - C) GM crops should only be grown in poor countries with hunger problem.
 - D) Americans like the taste of GM food.

READING TEXT 4

Please read the text and answer the questions

Judging by appearances

Paul Smith is 25. He left university two years ago. He has been trying hard to gain access to the workforce but has not made progress. He has been to twenty-five interviews and hasn't found a job. However, he won't change his appearance to try and get work. 'This is the way I look. You can take it or leave it. People should look at my qualifications, not my hair,' he says.

Unfortunately for Paul, first impressions are important. On this subject, researchers conducted a survey with employers. For employers, neat and tidy hair and smart clothes serve a purpose. When they make decision to hire a person they pay heed to outward appearance. They think it is as important as one's qualifications. An interview may last half an hour or more, but the decision to hire or not is usually taken in the first four minutes, sometimes even before the jobseeker has spoken.

So what factors are important for first impression? How do employers draw conclusions about a person's character without knowing them fully? This changes a lot according to our culture. For example, in the United States physically attractive people are thought of as warmer, kinder, more sociable and even more intelligent although they are not always as lucky as we think. Some people think attractive people are irresponsible and childish so they don't give them the best jobs. Incorrect ideas such as these have taken root in American society. Therefore, those who are lucky enough to be born with good looks can use this and seize the opportunity to find a good job.

We can't do much about our height or how good-looking we are but we can control our body language. For example, if you hang your head and play with your hair or hold your hand over your mouth you may seem nervous or dishonest. It is also important to look in the right place. In Britain and America, it is appropriate to look the interviewer more or less in the eyes. Unfortunately, people from some cultures can find this quite difficult because they do not look directly at strangers.

(New Streetwise by Oxford)

Please match the following words with their correct definitions by writing the numbers in front of the words. There are two extra definitions.

- | | |
|----------------------------------|--|
| <i>appearance</i> (n) | 1) the way someone or something looks to other people |
| <i>qualifications</i> (n) | 2) someone who looks for a job |
| <i>jobseeker</i> (n) | 3) behaving like a child |
| <i>intelligent</i> (adj) | 4) worried or frightened about something, and unable to relax |
| <i>irresponsible</i> (adj) | 5) to have great power |
| <i>childish</i> (adj) | 6) deceiving or cheating people |
| <i>nervous</i> (adj) | 7) someone that you do not know |
| <i>dishonest</i> (adj) | 8) the person who asks the questions in an interview |
| <i>stranger</i> (n) | 9) a skill, personal quality, or type of experience that makes you suitable for a particular job or position |
| <i>interviewer</i> (n) | 10) having a good understanding of ideas and thinking clearly |
| | 11) doing careless things without thinking or worrying about the possible bad results |
| | 12) not wanting to change his opinion |

Please answer the following questions by indicating the correct choice. You will be given 5 minutes to complete the task.

1. According to text which of the following is more important to get a job?
 - A) a person's character
 - B) a person's health
 - C) a person's look
 - D) a person's interests

2. Why does author think that first impression is important in a job interview?
 - A) because first impression can tell a person's qualification
 - B) because decision to hire a person is made based on the first impression
 - C) because interviews usually ends after you make your first impression
 - D) because interviews are very short

3. Which of the following is not true according to the text?
 - A) In America it is always physically attractive people who get best jobs.
 - B) Employers pay attention to an interviewees appearance
 - C) During a job interview one must be careful about his/her appearance
 - D) There are preconceived ideas about appearance in American society

4. According to the text, which of the following is true about body language?
 - A) Body language is more important than appearance during a job interview
 - B) Appearance is more important than body language during a job interview
 - C) During a job interview body language can be as important as one's appearance
 - D) Body language can tell about your qualifications

5. We can infer from the passage that
 - A) there are cultural difference in interpretation of body language
 - B) playing with your hair during interview is appropriate
 - C) holding your hand over your mouth is a way of relaxing during an interview
 - D) people from different cultures use the same body language

READING TEXT 5

Please read the text and answer the questions

Men and Women

Most of us may not pay heed to it, but men's and women's communication styles are not similar. This can have a negative effect on our relationship. We often become angry with the opposite sex. We want the opposite sex to behave and communicate like we do. Looking at this, however, we should not draw the conclusion that both sexes learn to behave differently. It is just in their nature.

Why does a man behave differently? According to some scientists, some differences between sexes started to take root centuries ago. There is evidence to suggest that early men and women did different jobs. Men were programmed to hunt silently for animals. They had to be able to concentrate on one thing. Thus, for the early men, being focused on one thing served a purpose when hunting. This is why it's so difficult to have a conversation with a man when he's watching TV.

Why does a woman behave differently? Women are usually very good at doing more than one job at once. It is difficult for them to do only one thing at a time. In the past, early women worked in groups. They had to communicate a lot. So women have gotten generally more talkative and sensitive to other people's feelings. Scientists conducted a survey on how the two sexes behave. In that research, one question asked what men and women would do at a party. The two groups gave different answers. Women said they would seize the opportunity to get to know everything about everyone. On the other hand, men said that they would discuss less personal topics like football.

Such differences between men and women make them special. Of course, women still do so tasks that need concentration. And men can do two things at the same time after a strong cup of coffee! We're not saying that women and men are not equal; it's just that there are some natural differences and that's fantastic! As the science makes progress and scientists gain access to the activities of our brains we will better understand such differences. But, for the moment, we should appreciate and accept them as being what makes us special.

(New English File Intermediate Test booklet)

Please match the following words with their correct definitions by writing the numbers in front of the words. There are two extra definitions.

- | | |
|-------------------------------|---|
| <i>relationship</i> (n) | 1) different in some way and often better or more important |
| <i>communicate</i> (v) | 2) to exchange information or conversation with other people, using words, signs, writing etc |
| <i>hunt</i> (v) | 3) to talk about something with another person |
| <i>nature</i> (n) | 4) to try to catch animals and birds |
| <i>concentrate</i> (v) | 5) someone's character |
| <i>personal</i> (adj) | 6) relating to the private areas of your life |
| <i>special</i> (adj) | 7) to think very carefully about something that you are doing |
| <i>discuss</i> (v) | 8) to understand how important a situation or something is |
| <i>appreciate</i> (v) | 9) extremely good, attractive, enjoyable etc |
| <i>fantastic</i> (adj) | 10) not worrying about problems |
| | 11) to know a lot about a subject |
| | 12) the way in which two people or two groups feel about each other and behave towards each other |

Please answer the following questions by indicating the correct choice. You will be given 5 minutes to complete the task.

1. We can understand from the text that
 - A) men and women cannot communicate at all.
 - B) men are better communicators.
 - C) women usually don't want to communicate.
 - D) men and women communicate differently.

2. According to the reading text early men.....
 - A) had to be silent and watchful when hunting.
 - B) didn't need to hunt.
 - C) had to concentrate on two things.
 - D) wasn't afraid of wild animals.

3. Which of the following is true according to the text?
 - A) Early women had to hunt for animals in the past.
 - B) Early men had to be silent when hunting.
 - C) Women didn't need to be focused when hunting.
 - D) Early women hunted more animals than men.

4. According to the text which of the following sentences is true?
 - A) Men and women performed different tasks in the past.
 - B) Men can focus on more than one thing at a time.
 - C) Early man had to communicate more than early women.
 - D) Women had to communicate a lot when hunting.

5. We can infer from the passage that
 - A) A man can communicate better with other man
 - B) Women need to communicate more than men
 - C) Communication is more important for men than women
 - D) It's in both sexes' nature to communicate differently

READING TEXT 6

Please read the text and answer the questions

Nonverbal communication

Looking at animal behavior one might draw the conclusion that animal communication is simple. However, this may not always be true. In animal communication, smells, sounds and actions all serve a purpose. Still, we can understand *some* animal behaviors. For example, when an angry cat arches its back and opens its claws, it means 'keep your distance'. Therefore, to avoid scratches must pay attention to this sign. It is not animals that communicate in this way. Like animals humans use their body language “to speak”.

We humans may sometimes do this more than we realize. When your parents read your school report, they may not need to say anything to show you how they feel. The way they hold the report and the look on their faces immediately tells you if they are cheerful, surprised, disappointed or angry. As a child grows up s/he slowly makes progress in understanding body language. S/he begins to link certain types of body movements with certain messages.

Use of gestures has long taken root among humans. We use them to give a message to other people. Therefore, scientists have always wanted to learn about gestures. They conducted surveys about gestures. They found that some gestures are universally understood. People smile when they are happy. They frown when they are sad. Or they open hands as a sign of peace. But not all gestures have the same meaning around the world. A different interpretation of a gesture is possible in a different culture. A friendly sign in one culture might be impolite in another – so pay heed!

Also, what we wear can say a lot about us. Business people and politicians usually wear expensive suits in order to appear serious. People in the entertainment industry wear smart clothes. Teenagers might wear designer jeans and pierce their noses. So when you meet someone for the first time, remember, it's not just what you say that makes an impression, but also what you wear and what you do.

As the saying goes, “actions speak louder than words”. Thus, to gain access to the rich potential of non-verbal communication and give a clear message around you, you should sometimes seize the opportunity to ‘remain silent’.

New matrix (Intermediate workbook by Oxford)

Please match the following words with their correct definitions by writing the numbers in front of the words. There are two extra definitions.

- | | |
|-----------------------------|--|
| <i>scratch</i> (n) | 1) neat and fashionable (clothes) |
| <i>gesture</i> (n) | 2) the opinion or feeling you have about someone or something |
| <i>distance</i> (n) | 3) to leave a place in hurry |
| <i>claw</i> (n) | 4) a small cut on someone's skin |
| <i>cheerful</i> (adj) | 5) not have enough of sth |
| <i>silent</i> (adj) | 6) a movement of your hands or head to show what you mean or how you feel |
| <i>suit</i> (n) | 7) a set of clothes made of the same material, usually including a jacket with trousers or a skirt |
| <i>pierce</i> (v) | 8) to make a small hole in or through something, using an object with a sharp point |
| <i>smart</i> (adj) | 9) the amount of space between two places or things |
| <i>impression</i> (n) | 10) a sharp curved nail on an animal, bird, or some insects |
| | 11) behaving in a way that shows you are happy |
| | 12) not saying anything |

Please answer the following questions by indicating the correct choice. You will be given 5 minutes to complete the task.

1. According to the text animal communication
 - A) may not be as simple as it seems
 - B) is more complex than human communication
 - C) is very easy to understand for scientists
 - D) is the same for all animals

2. We can understand from the text that children
 - A) can't understand body language.
 - B) can't link gestures with messages
 - C) can understand body language better than adults
 - D) start to understand body language as they grow up

3. Which sentence is true according to the text?
 - A) Gestures have the same meaning in all cultures
 - B) A gesture may have a different meaning in another culture
 - C) Some cultures use more gestures than others
 - D) non-verbal communication is more popular than verbal communication

4. We can understand from the passage that
 - A) politicians must always wear expensive clothes
 - B) clothes that you wear can give a message about you
 - C) body language tells more about a person than his/her clothes
 - D) everybody must wear expensive clothes to appear serious

5. We can infer from the passage that
 - A) what you do may sometimes tell more than what you say
 - B) a person's appearance is more important than his character
 - C) people communicate better with words than gestures
 - D) gestures are less important than words

READING TEXT 7

Please read the text and answer the questions

Drugs in Sports

Drugs in sports seem common in sports. A sports magazine has conducted a survey with sports fans about the use of drugs in sports. According to the survey, people believe that athletes and players often use such drugs. Although such drugs are illegal and not sold in drug stores, they gain access to these drugs through online shopping.

Taking substances to improve sports performance is not new. The practice of using drugs took root in ancient times. Athletes in ancient Egypt drank a special mixture with boiled donkey hoof to make them winners. The winner of the 200 meters at the Olympic Games of 668 BC in ancient Greece used a special diet of figs. Besides donkey's hoof and figs, garlic also served a purpose in enhancing athletes' performance in ancient Olympics.

More and more people in sports today use performance enhancing drugs. These drugs give them extra energy. They help them build muscles. Others use them to kill the pain of injuries or calm nerves. For example body-builders use *anabolic steroids*. They take such drugs to look good in competitions. Still some others use stimulants. Such chemicals make them full of energy and confidence. *Amphetamines* have been abused by cyclists. They use it because they need strength. Also basketball players use cocaine to make them more competitive. Use of all these drugs in sports is officially banned in sport. However, athletes and players secretly seize the opportunity to enhance their performance.

Because of the regular tests, some athletes are looking for new ways of cheating. And "the industry" has made progress to hide the drugs in the body. They invented new substances and methods to cheat. These include natural substances. Growth hormone is one of them. This has the same effect as manmade drugs. Also some sportsmen take extra blood a few days before competition.

Doctors have noticed that certain types of health problems are common among athletes who might use these drugs. Hence they draw the conclusion that these drugs can actually cause severe health problems. They can cause liver cancer, heart disease and even death. Yet, some of athletes don't pay heed to doctors' warnings and are ready pay a very high price to win.

(New Streetwise Intermediate by Oxford)

Please match the following words with their correct definitions by writing the numbers in front of the words. There are two extra definitions.

- | | |
|--------------------------------|---|
| <i>substance</i> (n) | 1) a drug or substance that makes you feel more active and full of energy |
| <i>illegal</i> (adj) | 2) the feeling that you can trust someone or something to be good, work well, or produce good results |
| <i>boil</i> (v) | 3) a particular type of matter such as a chemical |
| <i>enhance</i> (v) | 4) trying very hard to be more successful than other people or businesses |
| <i>stimulant</i> (n) | 5) to do sth before you get a permission |
| <i>confidence</i> (n) | 6) put or keep something or someone in a place where they cannot easily be seen or found |
| <i>competitive</i> (adj) | 7) behave in a dishonest way in order to win or to get an advantage in a competition etc |
| <i>severe</i> (adj) | 8) to improve something |
| <i>hide</i> (v) | 9) to behave bravely in a difficult situation |
| <i>cheat</i> (v) | 10) not allowed by the law |
| | 11) to cook something in hot water |
| | 12) bad or very serious (a problem, illness) |

Please answer the following questions by indicating the correct choice. You will be given 15 minutes to complete the task.

1. We can understand from the text that
 - A) athletes in the past were stronger.
 - B) performance enhancing drugs have been invented only recently.
 - C) athletes in ancient times also tried cheat in competitions.
 - D) athletes only ate garlic during ancient Olympic games.

2. Why does author mention donkey's hoof in paragraph 2?
 - A) Winners were given donkey's hoof as reward.
 - B) Athletes believed that donkey's hoof brought them good luck.
 - C) Some athletes carried it with them.
 - D) It was believed to increase athletes' performance in the competitions.

3. According to text drugs are used by people in sports for all of the following purposes except?
 - A) To help them build muscles
 - B) To give them extra energy.
 - C) To make them more competitive.
 - D) To avoid injuries.

4. According to the text, why are regular tests done in sports?
 - A) More and more athletes have started using drugs.
 - B) To discover athletes who take performance enhancing drugs.
 - C) To show athletes that such drugs are not good for their health.
 - D) To help them better their performance.

5. We can infer from the passage that
 - A) drugs give unfair advantage to athletes who use them.
 - B) some performance enhancing drugs must be legal.
 - C) performance enhancing drugs should be available at drugstores.
 - D) performance drugs used to be legal in the past but they are not anymore.

READING TEXT 8

Please read the text and answer the questions

The people next door

A group of researchers conducted a survey about neighbors in Great Britain. Sociologist found the results of the survey very interesting. They especially paid heed to one shocking results of that survey. 80 percent of the people feel that their neighbors are inconsiderate. 25 percent don't talk to the people who live next door and 10 percent don't even know their names. In fact, one million people in Britain would like to move because of the people that live next door. Based on these numbers, sociologists drew the conclusion that British people do not like their neighbors at all.

The research team also gained access to official complaints to police about neighbors. They found that the biggest problem between neighbors was noise. There were more complaints about noise. People who live in flats and divided houses easily get disturbed by noise from neighbors. Such houses often have thin walls. The walls can't stop the noise from TV sets or washing machines.

Besides complaints about noise there were some other major problems. Neighbors argued about car parking spaces. Old people complained about the young. Some disagreements last for a long time. In one case, people who live in the same house haven't talked to each other for fifteen years. Some disagreements even end in violence. In one of the worst cases, a man killed a neighbor because he kept parking in 'his space'.

There are always serious disagreements between neighbors. In some cases talking alone may not serve a purpose. But neighbors must still resolve their disagreements. One solution would be to find a professional 'mediator'. The mediator is an expert on conflict management. He can negotiate an agreement between neighbors. However this service is not commonly found in Britain. But it is slowly becoming available in most places. Sociologists believe that the practice will soon take root all across Britain.

When neighbors become friends they often help each other. They seize the opportunity to socialize with each other. However, the survey showed that 90% of neighbors never shared a meal, 80% had never had a drink together and 20% had never even spoken. It seems that British households need to reinvent neighborly relations to make progress in socializing with their neighbors.

(New Streetwise by Oxford)

Please match the following words with their correct definitions by writing the numbers in front of the words. There are two extra definitions.

- | | |
|----------------------------------|--|
| <i>inconsiderate</i> (adj) | 1) to find a to find an answer to a problem or difficult situation |
| <i>move</i> (v) | 2) can easily be found |
| <i>complaint</i> (n) | 3) to spend time with other people in a friendly way |
| <i>disturb</i> (v) | 4) not caring about the feelings, needs, or comfort of other people |
| <i>violence</i> (n) | 5) to make someone laugh |
| <i>resolve</i> (v) | 6) to start to live or work in a different place |
| <i>conflict</i> (n) | 7) a official letter in which someone complains about something |
| <i>mediator</i> (n) | 8) to behave in a noisy and unpleasant way and make other people uncomfortable |
| <i>available</i> (adj) | 9) a state of disagreement or argument between people, groups, countries |
| <i>socialize</i> (v) | 10) to criticize someone seriously |
| | 11) a person that tries to end a disagreement between two people |
| | 12) behaviour that is intended to hurt other people physically |

Please answer the following questions by indicating the correct choice. You will be given 5 minutes to complete the task.

1. According to text British people?
 - A) Most people in Britain like their neighbors.
 - B) Most people in Britain live in flats.
 - C) Most British people want to live in the countryside.
 - D) Many British people are not happy with the people next door.

2. The writer mentions official complaints to police in paragraph 2.....
 - A) to show how the police successfully resolve conflict between neighbors.
 - B) to indicate the cause of disagreements between neighbors.
 - C) to complain about the police who can't resolve neighbors' problems
 - D) to show that walls in most British houses are very thin.

3. Which of the following is not true according to the text?
 - A) The British police are intolerant of neighbors.
 - B) Old people are nicer to their neighbors.
 - C) Most arguments between neighbors are caused by envy.
 - D) Noise is the biggest cause of disagreements between neighbors.

4. According to the text, why does writer suggest getting a professional mediator?
 - A) A mediator can help the police to negotiate with neighbors.
 - B) A mediator can help stop the noise at houses.
 - C) A mediator can negotiate an agreement between neighbors.
 - D) It is cheaper to hire a negotiator than to go to a court to end conflict.

5. We can infer from the passage that
 - A) British neighborly relations are missing in Britain.
 - B) British people are difficult.
 - C) People in Britain socialize less.
 - D) It is very difficult to live in Britain.

READING TEXT 9

Please read the text and answer the questions

Your appearance and you

The beauty image has taken root in western culture. And more people today have become obsessed with their beauty. But this didn't happen overnight. The media first gained access to every aspect of our lives. It bombarded us with images of good-looking people. And the images we saw started to affect our body image too. Today ever more people have a negative image of their body. They are ready to do everything to look good. Some use cosmetics. Still others use cosmetic surgery to look beautiful. This is good news for the industry. They have already seized the opportunity to increase their sales.

It is perfectly natural for people to have a new haircut or buy something nice to wear to a party. They can do these to make a good first impression on others. But the real problems start when people feel that there's something they can't change about their look. An unusually shaped nose can make them feel unattractive. Or they may not like their figure. In serious cases such small things can often take over their lives completely. Such thoughts can even make them feel anxious about going out in public and making them depressed.

In 2006 some researchers conducted a survey about body image and drew conclusions about the ways people regain confidence in themselves. Below are a few suggestions they say people with negative body image should pay heed to.

- Think about your skills and talents. For example, focus on success at work, participating in sports, and friendships. Once you realize that can make progress in your work and life, appearance will seem less important. If you do have negative feelings about your appearance, try to do something positive like buying some new clothes or taking up a new hobby.
- Learn to accept that you are unique. There's no one else in the world like you and that makes you very special. Love the unusual things about yourself. Every aspect of your appearance serves a purpose in making you unique in this world.
- Forget about what you can't control. There's one simple rule: be realistic, work on improving what you can change, and don't spend time worrying about anything else.

(New English File Intermediate test booklet)

Please match the following words with their correct definitions by writing the numbers in front of the words. There are two extra definitions.

- | | |
|---------------------------------|---|
| <i>obsessed (adj)</i> | 1) the belief that you have the ability to do things well |
| <i>bombard (v)</i> | 2) to increase in number |
| <i>image (n)</i> | 3) think or worry about sth all the time |
| <i>surgery (n)</i> | 4) to do something too often or too much |
| <i>unattractive (adj)</i> | 5) to start to take control of something |
| <i>figure (n)</i> | 6) to take part in an activity or event |
| <i>take over (v)</i> | 7) a picture of an object in a mirror on TV etc |
| <i>participate (v)</i> | 8) medical operation |
| <i>unique (adj)</i> | 9) being the only one of its kind |
| <i>confidence (n)</i> | 10) think about a bad experience |
| | 11) not pleasant to look at |
| | 12) the shape of a woman's body |

Please answer the following questions by indicating the correct choice. You will be given 5 minutes to complete the task.

1. According to text more people today have a negative image of their body because.....
 - A) they have unhealthy diet.
 - B) the pictures they see on the screen influence their self-image.
 - C) they don't want to spend money on cosmetics.
 - D) they get bombarded by images of not so good-looking people on the screen.

2. According to the writer the cosmetics industry
 - A) negatively influences peoples' image of their body.
 - B) earns more money than before.
 - C) is responsible for creating a demand for their products.
 - D) used to sell more products in the past

3. Which of the following is true according to the text?
 - A) In the past people weren't obsessed with their appearance.
 - B) As they get older people become more obsessed with their look.
 - C) People with low confidence usually feel happy about their look.
 - D) People will never be happy about their appearance.

4. According to the text, which of the following does writer not suggest to people with low self-image?
 - A) They should focus on their abilities and talents.
 - B) They should get advice from a cosmetic surgeon.
 - C) They should learn to view themselves positively.
 - D) They should learn to be more realistic.

5. We can infer from the passage that
 - A) People with low self-image should not look in the mirror.
 - B) People with low self-image usually have low self-confidence.
 - C) People with unusually shape nose are unique.
 - D) People with a positive image of themselves have more talents.

READING TEXT 10

Please read the text and answer the questions

Designing the Future

Our genes control nearly everything in our body. And we have the genetic science to understand the function of our genes. This science has made progress in recent years. Scientists are trying hard to gain access to new information about our genes. They hope to use the findings of their research in new applications. Some genetic scientists even hope to help future mothers get a perfect baby. With the new technology, new mothers will seize the opportunity to "shop" for their 'perfect baby'. They will be able to select physical, intellectual, and personality traits of their babies.

But some scientists think that this method will not take root soon. They believe complex types of genetic engineering will not be possible for at least 100 years. Also they have ethical objections to 'engineering a perfect child'. They say the use of genetic engineering serves a purpose only when the health of the mother or her unborn baby is in danger.

What do people think on this subject? Researchers have conducted a survey. They found that public opinion on this subject has been changing in the United States. A 1986 survey showed that 42 percent of Americans was against "engineering a perfect baby". Another survey in 1996 showed that only 22 percent were against the idea. This is a big change. This change in opinions is understandable. Because historically whenever the once unimaginable becomes possible it soon becomes common. Think of first cars, airplanes, and the Internet. They were not so popular at first. However, they are very common today. Most people can afford them. Their story helps us draw conclusions about the future of 'engineering perfect a child'. If the necessary technology becomes available, more parents will use it.

However, there are some issues we should all pay heed to. Some social and ethical problems are unavoidable. First, poor parents will not have the money to pay for 'the genetic advantage' for their child. Their children will be born disadvantaged. Second, too many parents may decide to get a girl (*or* a boy). So there will be an unequal number of girls or boys in society. Last but perhaps the most important question: What are the long-term health risks of genetic engineering?

(Password 3 Longman)

Please match the following words with their correct definitions by writing the numbers in front of the words. There are two extra definitions.

- | | |
|-----------------------------------|--|
| <i>unavoidable (adj)</i> | 1) someone's character, especially the way they behave towards other people |
| <i>disadvantaged (adj)</i> | 2) certain to happen (<i>sth bad</i>) |
| <i>ethical (adj)</i> | 3) having problems, which make it difficult for you to succeed |
| <i>afford (v)</i> | 4) relating to principles of what is right and wrong |
| <i>unimaginable (adj)</i> | 5) possessing or showing mental capacity |
| <i>objection (n)</i> | 6) being the only one of its kind |
| <i>intellectual (adj)</i> | 7) to do something very well |
| <i>select (v)</i> | 8) a reason that you have for disapproving of something |
| <i>personality (n)</i> | 9) to choose something or someone by thinking carefully about which is the best, most suitable |
| <i>against (prep)</i> | 10) to have enough money to buy or pay for something |
| | 11) impossible |
| | 12) opposing or disagreeing with something |

Please answer the following questions by indicating the correct choice. You will be given 5 minutes to complete the task.

1. According to text genetic engineering
 - A) was more popular in the past.
 - B) is not good for humans.
 - C) is always finding new inventions.
 - D) does more harm than good to humans.

2. We can understand from the text 'a perfect baby'
 - A) has all the desirable traits.
 - B) looks like his parents.
 - C) has some genetic diseases.
 - D) lives longer than 100 years.

3. Which of the following is true according to the text?
 - A) When mothers go shopping they should choose genetically modified food.
 - B) Most Americans have come to accept the idea of 'engineering a perfect child'.
 - C) Americans are against genetic science.
 - D) Fewer Americans are interested in genetic science.

4. According to the text if too many parents want to get a boy (or a girl)
 - A) There will be more of one sex than the other.
 - B) Some ethical problems will be unavoidable.
 - C) Both girls and boys will be disadvantaged.
 - D) Some social problems will be solved.

5. We can infer from the passage that
 - A) 'genetically modified' babies will be disadvantaged.
 - B) in the future all babies will be born as 'genetically modified'
 - C) genetic science seems to have both positive and negative sides.
 - D) parents usually prefer to have a girl to a boy.

READING TEXT 11

Please read the text and answer the questions

Is it all in your genes?

Genetic science is making progress. With this science we gain access to the information in our DNA. We already know each person is born with a unique genetic make-up. Each cell of body has the same set of about 100,000 separate genes made of the protein DNA. These add up to a complete set of instructions for producing a person. This genetic information serves a purpose. It decides everything from the color of skin to the shape of face and the way brain works. Except for identical twins, no one has the same DNA combination as another person. This makes each person unique.

What makes who you are? Are your genes or your life experiences more important? What shapes your appearance and your personality? To answer these questions we can look at twins? Scientists are studying twins in order to find out. One set of twins occurs every 70 births. Some twins are identical and others are not. Identical twins share exactly the same genes and often the same environment. So they are special. Non-identical twins are more like ordinary brothers and sisters.

Scientists usually conduct surveys with twins. They examine their eating habits and marriage patterns. Identical twins that grow together often have very similar attitudes to eating. They like to eat at the same time of day. And they feel full after eating the same amount. Non-identical twins have different eating habits. Identical twins are also more likely to follow the same pattern of marriage and divorce than non-identical twins. Based on this scientists can draw conclusions. They now believe that genes shapes relationship with food and marriage.

Scientists are busy trying to identify the different genes that influence our behavior. Some certain preferences take root in our lives. For example some people are thrill-seekers. They get into risk-taking and adventurous activities. For a thrill, they seize the opportunity by engaging in extreme sports like bungee jumping. And now, scientists have discovered a gene which affects this.

We could ask, 'Are our lives determined by our genes or our upbringing?' Scientists are learning more all the time. But it is certainly true that we should pay heed to both our genes and environment.

(New Matrix Intermediate Workbook by Oxford)

Please match the following words with their correct definitions by writing the numbers in front of the words. There are two extra definitions.

- | | |
|-----------------------------|---|
| <i>separate</i> (adj) | 1) completely correct in every detail |
| <i>skin</i> (n) | 2) ending of a marriage |
| <i>appearance</i> (n) | 3) a sudden strong feeling of excitement and pleasure |
| <i>exactly</i> (adv) | 4) to become involved in an activity |
| <i>ordinary</i> (adj) | 5) the way that your parents care for you and teach you to behave when you are growing up |
| <i>habit</i> (n) | 6) something that you do regularly or usually |
| <i>divorce</i> (n) | 7) the way someone or something looks to other people |
| <i>thrill</i> (n) | 8) not to look at something |
| <i>engage in</i> (v) | 9) not very good |
| <i>upbringing</i> (n) | 10) different |
| | 11) the natural outer surface of a person's or animal's body |
| | 12) usual, not different or special |

Please answer the following questions by indicating the correct choice. You will be given 5 minutes to complete the task.

1. We can understand from the text that
 - A) every person has similar set of genes
 - B) twins have more genes than ordinary people
 - C) marriage is very important for twins
 - D) genes shape every aspect of person

2. Why does author mention twins in the text?
 - A) To show that twins have healthy genes.
 - B) Studies with them give us useful information about genes.
 - C) Because they have more genes than ordinary person.
 - D) Their eating habit is different from a usual person.

3. According to text identical twins
 - A) are more likely to similar pattern in life
 - B) grow up in different environments
 - C) are different from each other
 - D) have different type of genes

4. According to the text, thrill seeking
 - A) can be in our genes.
 - B) the result of our growing up in a dangerous environment.
 - C) is usually found in twin behavior.
 - D) is learned behavior.

5. We can infer from the passage that
 - A) most of our behavior is learned.
 - B) genes plays in important role in shaping our life.
 - C) most diseases can be caused by our genes.
 - D) some people have more genes than others.

READING TEXT 12

Please read the text and answer the questions

The Mind of Chimpanzee

If you were to conduct a survey among pet owners most would say similar things. Most would say their pets in some way understand them. And some owners would even seize the opportunity to 'talk' with their pets. Their pets soon become their favorite companions. Perhaps there is some truth in it. They may really be communicating with their animals. A special kind of language may take root over the years between the pet and owners.

A study supports this. In the middle of the 1960s, Beatrice and Allen Gardner started a project. They wanted to gain access to information about animal communication. For their research they got a baby chimpanzee. Later they began to teach her the signs of the American Sign Language. It's the language used by many of the deaf in Canada and the United States. The chimpanzee seemed to pay heed to the meaning of every sign. And in a short time it made progress in learning many signs of ASL. When she was asked in sign language to get an apple, she would go and find an apple that was out of sight in another room. That research was very successful. Based on it, Beatrice and Gardner drew the conclusion that chimpanzees could use signs to communicate. They said that chimps can have some skills similar to those of humans.

Some people were fascinated and excited by the Gardners' discoveries. However, most people criticized the whole project. They strongly rejected the new idea. But these criticisms didn't serve a purpose. Many other similar projects followed. They provided additional information about the chimpanzee's mind. In those studies other chimpanzees were taught a human language. They too could combine signs creatively in order to describe objects for which they had no sign. For example, one language-trained chimp described a cucumber as a "green banana" and another referred to a fizzy drink as a "listen drink".

Some people say chimpanzees have developed highly social skills because they need all their mental skills during normal everyday life. Indeed, the study of chimpanzees in the wild suggests that their intellectual abilities evolved over thousands of years to help them deal with daily life.

Password 3 by Longman

Please match the following words with their correct definitions by writing the numbers in front of the words. There are two extra definitions.

- | | |
|---------------------------------|--|
| <i>companion</i> (n) | 1) In a new way |
| <i>pet</i> (n) | 2) mix or join together |
| <i>truth</i> (n) | 3) relating to the ability to understand things |
| <i>deaf</i> (adj) | 4) an ability to do something well |
| <i>fascinated</i> (adj) | 5) bad or very serious (a problem, illness) |
| <i>similar</i> (adj) | 6) unimportant detail |
| <i>combine</i> (v) | 7) the true facts about something |
| <i>creatively</i> (adv) | 8) physically unable to hear anything or unable to hear well |
| <i>intellectual</i> (adj) | 9) someone you spend a lot of time with, especially a friend |
| <i>skill</i> (n) | 10) an animal such as a cat or a dog which you keep at home |
| | 11) very interested by something or someone |
| | 12) almost the same |

Please answer the following questions by indicating the correct choice. You will be given 5 minutes to complete the task.

1. We can understand from the text that
 - A) chimps can understand but not speak language.
 - B) humans can speak chimpanzee language.
 - C) chimpanzees are the most intelligent animals.
 - D) Chimpanzees can learn some signs to name objects.

2. The author mentions pet owners in paragraph 1 to show
 - A) how they spend time with animals.
 - B) how ordinary people could communicate with their animals.
 - C) Why animals can't understand humans
 - D) how to teach animal human language

3. According to text the chimp in Beatrice and Allen Gardner's experiment could
 - A) pick up an object and name it.
 - B) form sentences.
 - C) wasn't interested in learning new signs.
 - D) was deaf.

4. According to the text, how did people react to Beatrice and Allen Gardner's discovery?
 - A) There was no reaction to their discovery.
 - B) Some criticized their ideas.
 - C) Nobody showed any interest in their findings.
 - D) Most people were fascinated by their research.

5. We can infer from the passage that
 - A) environmental factors have helped animals develop highly intellectual skills.
 - B) animals will never be able to fully learn human language.
 - C) Some animals are smarter than others.
 - D) Animals can only learn ASL.

APPENDIX III

COLLOCATION-FOCUSED PRACTICE SETS

PRACTICE SET 1

A) Find and circle the following the collocations in the text and write down the Turkish meanings next to the collocations.

make progress	.....
serve a purpose	.....
conduct a survey	.....
pay heed	.....
seize the opportunity	.....
gain access	.....
take root	.....
draw conclusion	.....

B) Match the following collocations with the correct definition in the box.

1. make progress	a) to use the best moment to get/do something
2. serve a purpose	b) to pay attention to something
3. conduct a survey	c) to be successful in entering a place or getting information etc.
4. pay heed	d) to get better at doing something
5. seize the opportunity	e) to decide something is true because you know that other things are true
6. gain access	f) to understand something fully
7. take root	g) (an idea, belief etc.) to grow and become accepted
8. draw conclusion	h) (something) help achieve something useful
	i) to collect statistical information by asking people's opinions about a subject
	j) to remember to do something

C) Complete the sentences below with the correct collocation from the box. Write the missing part in each collocation.

serve	make	conduct	pay
seize	draw	gain	take

- a) Advertisers always to learn about our shopping habits.
- b) This years' anti-smoking campaign have Many people have stopped smoking.
- c) As the technology we will be able to use hydrogen as fuel in our cars.
- d) Extreme sports such as bungee jumping among young people in the last ten years.
- e) When I was in England I to practise my English.
- f) If a computer user doesn't security, other people can his/her personal data.
- g) Looking at the economic crisis, economists that inflation and unemployment will rise next year.

D) Translate the following sentences into Turkish.

- 1) A salt-free diet serves a purpose for people with high cholesterol levels.

.....

- 2) I have made progress in my spoken English.

.....

- 3) You must pay heed to your words when you speak in public.

.....

- 4) I don't have afternoon classes so can seize the opportunity to find a part time job.

.....

- 5) Somebody has gained access to my bank account and got all the money.

.....

- 6) Bad eating habits took root in our modern society.

.....

- 7) We shouldn't draw conclusions about a person's character by looking at his appearance.

.....

- 8) Researchers are conducting a survey about young people's smoking habits.

.....

E) Rewrite the sentences by using the correct collocation in the following list.

serve a purpose	make progress	conduct a survey	pay heed
seize the opportunity	draw conclusion	gain access	take root

1) After years of hard work scientists will be successful in treating AIDS.

.....

2) It's a sunny day. Why don't we have a picnic by the lake?

.....

3) The burglar entered the house through the unlocked window.

.....

4) The school is asking students' opinions about teachers.

.....

5) Internet is good for educating people of ages.

.....

6) Use of internet has become popular among young people in recent years.

.....

7) To avoid computer viruses, one must be careful about anonymous emails.

.....

8) The lesson was cancelled. The students thought that the teacher might be sick.

.....

COLLOCATION-FOCUSED PRACTICE SET 2

A) Find and circle the following the collocations in the text and write down the Turkish meanings next to the collocations.

make progress	.....
serve a purpose	.....
conduct a survey	.....
pay heed	.....
seize the opportunity	.....
gain access	.....
take root	.....
draw conclusion	.....

B) Match the following collocations with the correct definition in the box.

1. pay heed	a) to decide something is true because you know that other things are true
2. make progress	b) (something) help achieve something useful
3. gain access	c) to pay attention to something
4. draw conclusion	d) to get better at doing something
5. take root	e) to use the best moment to get/do something
6. conduct a survey	f) to experience stress
7. seize the opportunity	g) to give sb advice
8. serve a purpose	h) to be successful in entering a place or getting information etc.
	i) (an idea, belief etc.) to grow and become accepted
	j) to collect statistical information by asking people's opinions about a subject

C) Complete the sentences below with the correct collocation from the box. Write the missing part in each collocation.

serve	make	conduct	pay
seize	draw	gain	take

- a) Learning a second language in finding a good job.
- b) In 18th century many jobless Europeans went to America and to start a new life there.
- c) If I in my school subjects, my father will buy me a new bicycle.
- d) Parents wanting to learn about their kid's success at school can to the website of our school.
- e) The newspaper wants to learn about its readers' views on nuclear energy so it is going to
- f) A good politician should always to people's opinions.
- g) Western life style is slowly in China.
- h) Scientists did many experiments before they on this subject.

D) Translate the following sentences into Turkish.

- 1) My doctor's advice didn't serve a purpose. I still have this terrible headache.

.....

- 2) If I had more time I would seize the opportunity to have a holiday.

.....

- 3) Computer technology has made progress in the last twenty years.

.....

- 4) It is very difficult to draw conclusions from what we see.

.....

- 5) Finally, the divers gained access to the ship that sunk last weekend.

.....

- 6) Never pay heed to his words. He is always mistaken.

.....

- 7) I wish someone conducted a survey about people's reaction to new smoking law.

.....

- 8) Cooking has taken root as favourite pastime among men in recent years.

.....

E) Rewrite the sentences by using the correct collocation in the following list.

serve a purpose	make progress	conduct a survey	pay heed
seize the opportunity	draw conclusion	gain access	take root

1) Next week I will spend my time to enjoy a weekend getaway.

.....

2) With the new railroad, people in this city can use the fast train connection to major cities.

.....

3) Most of our habits and behaviour start during childhood.

.....

4) Fire fighters have been successful in controlling the fire.

.....

5) A person should use his mind not his heart to understand people's actions.

.....

6) The man tried to explain to the police that he didn't steal the money. But it was no use.

.....

7) Rude people are never careful about what they say.

.....

8) The school library is asking a list of questions to students to know what kind of book they read.

.....

COLLOCATION-FOCUSED PRACTICE SET 3

A) Find and circle the following the collocations in the text and write down the Turkish meanings next to the collocations.

- make progress
- serve a purpose
- conduct a survey
- pay heed
- seize the opportunity
- gain access
- take root
- draw conclusion

B) Match the following collocations with the correct definition in the box.

- | | |
|--------------------------|---|
| 1. pay heed | a) to decide something is true because you know that other things are true |
| 2. make progress | b) (something) help achieve something useful |
| 3. gain access | c) to pay attention to something |
| 4. draw conclusion | d) to get better at doing something |
| 5. take root | e) to use the best moment to get/do something |
| 6. conduct a survey | f) to experience stress |
| 7. seize the opportunity | g) to give sb advice |
| 8. serve a purpose | h) to be successful in entering a place or getting information etc. |
| | i) (an idea, belief etc.) to grow and become accepted |
| | j) to collect statistical information by asking people's opinions about a subject |

C) Complete the sentences below with the correct collocation from the box. Write the missing part in each collocation.

serve	make	conduct	pay
seize	draw	gain	take

- a) People with diabetics must to their diet.
- b) The two countries have in solving their problems.
- c) Sleep researchers average sleep time in our society.
- d) Cutting down amount of food we eat for living longer.
- e) The politician said that we should not allow vandalism in our cities.
- f) The number of people with cancer in Chernobyl area is very high and researchers that radiation still affects the area.
- g) My uncle offered me a trip to Europe, so I
- h) Today many people in Africa have not yet electricity and clean water.

D) Translate the following sentences into Turkish.

1) Graffiti has taken root among young people in cities.

.....

2) The photographer gained access to the hotel and secretly photographed the pop star.

.....

3) Some people don't pay heed to traffic rules.

.....

4) Some students draw conclusions about a book's content without actually reading it.

.....

5) I believe positive criticism serves a purpose in a child's education.

.....

6) The exam hall was very large and some students seized the opportunity to cheat.

.....

7) The airline company conducted a survey and found that one in ten person is afraid of flying.

.....

8) Some country has made progress in fighting AIDS.

.....

E) Rewrite the sentences by using the correct collocation in the following list.

serve a purpose	make progress	conduct a survey	pay heed
seize the opportunity	draw conclusion	gain access	take root

- 1) Cosmetic surgery is becoming popular among women who want to look good.
.....
- 2) It is very difficult to get information about children's eating habits.
.....
- 3) Not every TV program is useful for educating people.
.....
- 4) There were fifteen undergraduate students who were lucky enough to go to study in Canada last year.
.....
- 5) More people could use the services in the university library last year.
.....
- 6) Many developed countries have been successful in fighting unemployment.
.....
- 7) How did you get this idea about him? You haven't talk to him yet.
.....
- 8) I never care about gossip about me.
.....

COLLOCATION-FOCUSED PRACTICE SET 4

A) Find and circle the following the collocations in the text and write down the Turkish meanings next to the collocations.

make progress	.....
serve a purpose	.....
conduct a survey	.....
pay heed	.....
seize the opportunity	.....
gain access	.....
take root	.....
draw conclusion	.....

B) Match the following collocations with the correct definition in the box.

1. pay heed	a) to decide something is true because you know that other things are true
2. make progress	b) (something) help achieve something useful
3. gain access	c) to pay attention to something
4. draw conclusion	d) to get better at doing something
5. take root	e) to use the best moment to get/do something
6. conduct a survey	f) to experience stress
7. seize the opportunity	g) to give sb advice
8. serve a purpose	h) to be successful in entering a place or getting information etc.
	i) (an idea, belief etc.) to grow and become accepted
	j) to collect statistical information by asking people's opinions about a subject

C) Complete the sentences below with the correct collocation from the box. Write the missing part in each collocation.

serve	make	conduct	pay
seize	draw	gain	take

- a) People feel more generous at Christmas time so charities to collect money.
- b) My advice to him didn't He did what he had wanted to do anyway.
- c) There is problem with my computer. I can't to the internet.
- d) For my school project, I want to about children's eating habits.
- e) It is too early to about him. We must wait until we know him better.
- f) Bad eating habit has among young people.
- g) I have to to my health. I have put on weight recently.
- h) He has been trying hard to find a work but he hasn't yet.

D) Translate the following sentences into Turkish.

- 1) Although I tried very hard to learn Chinese I haven't made progress since two months.

.....

- 2) Complaining doesn't serve purpose. You must do something about your problems.

.....

- 3) My company wants to conduct a survey about peoples' opinions about its products

.....

- 4) I never draw conclusions about a person before I fully know him.

.....

- 5) The fire fighters couldn't gain access to the building which was on fire.

.....

- 6) At the party last night, I seized the opportunity to talk to some of my old friends.

.....

- 7) Vegetarianism is slowly taking root in the USA.

.....

- 8) Smokers should pay heed to non-smokers' rights.

.....

E) Rewrite the sentences by using the correct collocation in the following list.

serve a purpose	make progress	conduct a survey	pay heed
seize the opportunity	draw conclusion	gain access	take root

- 1) After two hours of driving practice I have improved my driving.
.....
- 2) It's no use to go to dentist after you get toothache.
.....
- 3) During my summer holiday I enjoyed my time by touring Turkey.
.....
- 4) After living in Germany for two years, he understood that English was easier than German.
.....
- 5) To better understand peoples' behaviour, researchers ask them personal questions.
.....
- 6) In order to reach the old the castle we had to climb up the mountain.
.....
- 7) If you are not careful enough with your spending you won't have any money left for your other needs.
.....
- 8) Doctors say exercising should be a regular part of our lives.
.....

COLLOCATION-FOCUSED PRACTICE SET 5

A) Find and circle the following the collocations in the text and write down the Turkish meanings next to the collocations.

make progress	.....
serve a purpose	.....
conduct a survey	.....
pay heed	.....
seize the opportunity	.....
gain access	.....
take root	.....
draw conclusion	.....

B) Match the following collocations with the correct definition in the box.

1. make progress	a) (an idea, belief etc.) to grow and become accepted
2. serve a purpose	b) (something) help achieve something useful
3. conduct a survey	c) to collect statistical information by asking people's opinions about a subject
4. pay heed	d) to get better at doing something
5. seize the opportunity	e) to decide something is true because you know that other things are true
6. gain access	f) to understand something fully
7. take root	g) to pay attention to something
8. draw conclusion	h) to remember to do something
	i) to use the best moment to get/do something
	j) to be successful in entering a place or getting information etc.

C) Complete the sentences below with the correct collocation from the box. Write the missing part in each collocation.

serve	make	conduct	pay
seize	draw	gain	take

- a) As the computer technology laptop computers will get even smaller.
- b) Before the concert I to the backstage area and to get a signed photo from the pop star.
- c) Parking sensors really for new drivers who can't park their cars.
- d) Gardening has as a weekend pastime in our town.
- e) To decide whether to open another restaurant in town, the fast food company.....
- f) My brother is crazy about cars so he every detail about cars.
- g) The doctor examined the man and that the man he had caught virus many years ago.

D) Translate the following sentences into Turkish.

- 1) A good hand-writing serves a purpose when writing a CV to apply for job.

.....

- 2) Putting criminals in prison doesn't serve a purpose. We must re-educate them instead.

.....

- 3) I am not interested in sports thus I never pay heed to the news in sports section of newspapers.

.....

- 4) A sports magazine has conducted a survey about the most popular sports activities in the country.

.....

- 5) The two terrorists gained access to the airport as a lorry driver.

.....

- 6) More people buy flowers at Valentine's Day. So florists seize the opportunity to increase the prices.

.....

- 7) It is very difficult to draw a conclusion about a job applicant from his/her CV only.

.....

E) Rewrite the sentences by using the correct collocation in the following list.

serve a purpose	make progress	conduct a survey	pay heed
seize the opportunity	draw conclusion	gain access	take root

- 1) Many words in English and French are similar but we shouldn't get the idea that they are similar languages.
.....
- 2) People who work outside pay attention to weather report on television.
.....
- 3) According to some sociologists, every person is important in a society.
.....
- 4) New TVs with better picture quality will certainly be popular in the next ten years.
.....
- 5) It's the perfect time to buy new house because prices are very low. We mustn't miss this chance.
.....
- 6) Only those researchers with permission can use the state archives.
.....
- 7) The country's economy has not developed for ten years.
.....
- 8) They asked people students about why they want to learn a second language.
.....

COLLOCATION-FOCUSED PRACTICE SET 6

A) Find and circle the following the collocations in the text and write down the Turkish meanings next to the collocations.

make progress	.....
serve a purpose	.....
conduct a survey	.....
pay heed	.....
seize the opportunity	.....
gain access	.....
take root	.....
draw conclusion	.....

B) Match the following collocations with the correct definition in the box.

1. pay heed	a) to get better at doing something
2. seize the opportunity	b) to decide something is true because you know that other things are true
3. gain access	c) to understand something fully
4. take root	d) to pay attention to something
5. make progress	e) to be successful in entering a place or getting information etc.
6. serve a purpose	f) (an idea, belief etc.) to grow and become accepted
7. conduct a survey	g) (something) help achieve something useful
8. draw conclusion	h) to collect statistical information by asking people's opinions about a subject
	i) to use the best moment to get/do something
	j) to remember to do something

C) Complete the sentences below with the correct collocation from the box. Write the missing part in each collocation.

serve	make	conduct	pay
seize	draw	gain	take

- a) My brother says energy drinks when he stays up late preparing for his exams.
- b) Scientists finally in answering some questions about our galaxy.
- c) The best way to find information about people's opinions is to
- d) During long summer days I to take a walk after dinner.
- e) There are over 2 million homeless people in America but politicians still don't..... this problem.
- f) The criminals restricted area with a false ID cards.
- g) Experts hope that the use of solar energy will in the coming ten years.
- h) We need more information to about this subject.

D) Translate the following sentences into Turkish.

- 1) Some doctors suggested that the hospital must conduct surveys with patients to find out about their needs.

.....

- 2) Organic farming has taken root in that area as the main agricultural activity.

.....

- 3) After a difficult journey at sea the fishing boats finally gained access to the fishing area.

.....

- 4) The workers protested against the company's new decision but employers didn't pay heed to them.

.....

- 5) The school library is usually very quiet in the morning so I seize the opportunity to study there.

.....

- 6) The bus company changed its timetable after it had conducted a survey on customers' needs.

.....

- 7) After months of practice the athlete has made progress in reaching his goal.

.....

- 8) Some wild animals such as bats serve a purpose in nature, they keep insect population down.

.....

APPENDIX IV

POSTTEST

Form Recognition Test 1

A. Aşağıdaki testte 20 adet soru bulunmaktadır. Verilen üç şıkta üç farklı fiil bir isimle kullanılmıştır. Verilen üç şıktan size göre en doğru olanını işaretleyiniz.

- | | | |
|----------------------------------|--------------------------------|--------------------------------|
| 1) a. <i>earn access</i> | b. <i>take access</i> | c. <i>gain access</i> |
| 2) a. <i>make progress</i> | b. <i>take progress</i> | c. <i>gain progress</i> |
| 3) a. <i>take root</i> | b. <i>make root</i> | c. <i>stick root</i> |
| 4) a. <i>give a speech</i> | b. <i>hold a speech</i> | c. <i>perform a speech</i> |
| 5) a. <i>pull an opportunity</i> | b. <i>seize an opportunity</i> | c. <i>catch an opportunity</i> |
| 6) a. <i>hold a secret</i> | b. <i>keep a secret</i> | c. <i>last a secret</i> |
| 7) a. <i>make a conclusion</i> | b. <i>pull a conclusion</i> | c. <i>draw a conclusion</i> |
| 8) a. <i>make friends</i> | b. <i>create friends</i> | c. <i>gain friends</i> |
| 9) a. <i>close a habit</i> | b. <i>break a habit</i> | c. <i>lay a habit</i> |
| 10) a. <i>show heed</i> | b. <i>pay heed</i> | c. <i>spread heed</i> |
| 11) a. <i>take harm</i> | b. <i>do harm</i> | c. <i>make harm</i> |
| 12) a. <i>earn a purpose</i> | b. <i>win a purpose</i> | c. <i>serve a purpose</i> |
| 13) a. <i>perform a survey</i> | b. <i>commit a survey</i> | c. <i>conduct a survey</i> |
| 14) a. <i>do a visit</i> | b. <i>lay a visit</i> | c. <i>pay a visit</i> |
| 15) a. <i>make an escape</i> | b. <i>take an escape</i> | c. <i>draw an escape</i> |

Form Recognition Test 2

B. Aşağıdaki verilen fiilleri uygun isimlerle eşleştiriniz.

- | | |
|------------|--------------------|
| 1. draw | A. root |
| 2. hold | B. a purpose |
| 3. catch | C. heed |
| 4. make | D. a habit |
| 5. keep | E. progress |
| 6. gain | F. a speech |
| 7. conduct | G. a survey |
| 8. serve | H. secret |
| 9. seize | I. the opportunity |
| 10. give | J. cold |
| 11. commit | K. a crime |
| 12. break | L. conclusion |
| 13. do | M. harm |
| 14. pay | N. access |
| 15. take | O. a discussion |

Meaning Recognition Test

C. Aşağıda verilen kelime bileşimlerinin İngilizce anlamları ile eşleştiriniz.

- | | |
|-------------------------|--|
| 1. gain access | A. to collect information about people's opinions by asking them a list of questions |
| 2. conduct a survey | B. be successful in entering a place or getting information |
| 3. serve a purpose | C. to decide something is true because you know that other things are true |
| 4. do a harm | D. to write down the things that happen to you each day |
| 5. take root | E. to pay attention to (something) |
| 6. draw a conclusion | F. to cause damage, injury, or trouble to someone |
| 7. hold discussions | G. (someone) to get better at doing something, or getting closer to finishing or achieving something |
| 8. keep a diary | H. to stop doing something that you do regularly, especially something that you should not do |
| 9. pay heed | I. to organize a meeting where people share their ideas to reach an agreement on a subject |
| 10. seize a opportunity | J. to talk about a particular subject in front of a group of people |
| 11. give a speech | K. become ill |
| 12. commit a crime | L. use the best moment/situation etc. to get or do something |
| 13. break a habit | M. (something) help achieve something useful |
| 14. catch cold | N. to do illegal activities |
| 15. make progress | O. (an idea, belief etc.) to grow and become accepted |

Reading Cloze Test

D. Aşağıdaki okuma parçasını okuyup numaralandırılmış olan boşluklara gelebilecek uygun kelime bileşimlerine ait şıkkı işaretleyiniz.

- | | |
|----------------------|--------------------|
| A. hold discussion | G. draw conclusion |
| B. commit a crime | H. make progress |
| C. serve a purpose | I. break a habit |
| D. conduct a survey | J. take root |
| E. pay heed | K. gain access |
| F. seize opportunity | |

The Power of Ethnocentrism

(Adapted from the ELT textbook: Mosaic Reading and Writing, McGraw Hill)

After birth we “absorb” the culture of the society we are born into. The culture of our society slowly (1) in our minds. This makes us ethnocentric. We start to feel that our culture is better than all others’. This can be best seen in our food preferences.

To help us understand the power of ethnocentrism we can (2) about what people think about types food people choose to eat in other cultures. In this way we can (3)to a repertoire of ethnocentric views about eating dogs, insects or other animals.

Some people think that our food preferences (4) for a healthful diet. They think like this because they don’t (5) to the fact that it is our culture that teaches us to/not to eat certain food. In China, for example, dog meat is an expensive food item. A Chinese person would (6) to enjoy it. However the thought of eating a dog would be very unpleasant for an American. This is because culturally Americans see dogs as pets. They think of dogs as almost human. Looking at this example, we can (7) that our food preferences are learned as we grow up in a culture.

However things are slowly changing. Today more of us are travelling abroad. As we get to know other cultures we become less ethnocentric. In this way we can (8)..... in understanding other cultures.

APPENDIX V

LESSON PLANS

LESSON PLAN

(Explicit Teaching Group)

Treatment Week 1, Monday

2 Class Periods

Class period	What to do	Time	Materials
1	a) Hand out Reading Text 1; allow subjects 15 minutes to understand the text. b) Hand out the sheets for reading comprehension questions; allow subjects 10 minutes to answer the questions. c) Hand out the sheets for vocabulary questions; allow subjects 5 minutes to answer the questions. d) Give correct answers to comprehension questions vocabulary questions. e) Ask subjects to return the sheets for comprehension questions and vocabulary questions. Subjects keep the reading texts.	15 10 5 10	Reading Texts Sheets for reading comp. question Sheets for vocabulary questions
2	a) Hand out Sheet 1 of Collocation-focused Practice Set 6. Ask subjects to find and circle target collocations in the texts and write Turkish meaning of each collocations. Ask subjects to find match the correct definition of the collocations. Ask subjects return the Sheet 1. b) Hand out Sheet 2 of Collocation-focused Practice Set 1. Ask subjects to complete the sentences with correct collocations after providing the missing part of the collocation. Ask subjects to return Sheet 2. c) Hand out Sheet 3 of Collocation-focused Practice Set 1. Ask subjects to provide L1 translations of sentences containing collocations. Ask subjects to return Sheet 3. d) Hand out Sheet 4 of Collocation-focused Practice Set 1. Ask subjects to rewrite given sentences by using correct collocations. Ask subjects to return Sheet 3.	10 7 10 10	Sheet 1 of Collocation-focused Practice Set1 Sheet 2 of Collocation-focused Practice Set1 Sheet 3 of Collocation-focused Practice Set1 Sheet 4 of Collocation-focused Practice Set1

LESSON PLAN
(Incidental Teaching Group 1)
Treatment Week 1, Monday
1 Class Period

Class period	What to do	Time	Materials
1	a) Hand out Reading Text 1; allow subjects 15 minutes to understand the text.	15	Reading Texts
	b) Hand out the sheets for reading comprehension questions; allow subjects 10 minutes to answer the questions.	10	Sheets for reading comp. question
	c) Hand out the sheets for vocabulary questions; allow subjects 5 minutes to answer the questions.	5	Sheets for vocabulary questions
	d) Give correct answers to comprehension questions vocabulary questions.	10	
	e) Ask subjects to return the sheets reading texts and related materials.		

LESSON PLAN

(Incidental Teaching Group 2)

Treatment Week 1, Monday

1 Class Period

Class period	What to do	Time	Materials
1	a) Hand out Reading Text 1; allow subjects 15 minutes to understand the text.	15	Reading Texts
	b) Hand out the sheets for reading comprehension questions; allow subjects 10 minutes to answer the questions.	10	Sheets for reading comp. question
	c) Hand out the sheets for vocabulary questions; allow subjects 5 minutes to answer the questions.	5	Sheets for vocabulary questions
	d) Give correct answers to comprehension questions vocabulary questions.	10	
	e) Ask subjects to return reading texts and related materilas.		

APPENDIX VI

REPEATED ANOVA TABLES

Repeated ANOVA results for FR1 and FR2

FORM-RECOGNITION TEST 1 (FR1)	<i>Sum of Sq.</i>	<i>df</i>	<i>Mean Sq.</i>	<i>F</i>	<i>p</i>
Between Groups (ETG-IT1-IT2)	29,77	2	114,88	29,42	,000
Error	398,29	102	3,90		
Within Groups					
Factor 1 (Im. Test-Dl. P.test)	1,49	1	1,49	13,53	,000
Factor 1* Group	,20	2	,10	,91	,40
Error	11,26	102	,11		
Total	641,01	209			

FORM-RECOGNITION TEST 2 (FR2)					
Between Groups (ETG-IT1-IT2)	228,84	2	114,42	26,68	,000
Error	393,23	102	3,86		
Within Groups					
Factor 1 (Im. Test-Del. P.test)	1,80	1	1,80	12,66	,000
Factor 1* Group	,59	2	,28	2,09	,129
Error	14,5	102	,14		
Total	638,96	209			

Repeated ANOVA results for MR

	<i>Sum of Sq.</i>	<i>df</i>	<i>Mean Sq.</i>	<i>F</i>	<i>p</i>
Between Groups (ETG-IT1-IT2)	61,03	2	18,51	39,32	,000
Error	468,23	102	4,59		
Within Groups					
Factor 1 (Im. Test-Dl. P.test)	3,61	1	3,61	1,87	,000
Factor 1* Group	1,42	2	,71	2,14	,122
Error	33,84	102	,33		
Total	848,14	209			

Repeated ANOVA results for RCT

	<i>Sum of Sq.</i>	<i>df</i>	<i>Mean Sq.</i>	<i>F</i>	<i>p</i>
Between Groups (ETG-IT1-IT2)	332,23	2	161,11	38,24	,000
Error	429,80	102	4,21		
Within Groups					
Factor 1 (Im. Test-Dl. P.test)	,58	1	,58	1,52	,220
Factor 1* Group	,072	2	,036	,094	,910
Error	38,85	102	0.38		
Total	791,53	209			

APPENDIX VII

READABILITY FORMULAS

Comparisons of the Readability Scores from Two Main Readability Formulas

Flesh Reading Ease	Flesh-Kincaid Grade Level	Reading Ease
90-100	5	Very Easy
80-90	5	Easy
70-80	6	Fairly Easy
60-70	7-8	Standard
50-60	9-10	Fairly Difficult
30-50	11-14	Difficult
0-30	15-16	Very Difficult

Flesch-Kincaid Grade Level Formula

$$206.835 - 1.015 \left(\frac{\text{total words}}{\text{total sentences}} \right) - 84.6 \left(\frac{\text{total syllables}}{\text{total words}} \right)$$

Flesch reading readability ease formula

$$0.39 \left(\frac{\text{total words}}{\text{total sentences}} \right) + 11.8 \left(\frac{\text{total syllables}}{\text{total words}} \right) - 15.59$$

Miyazaki EFL Readability Index

$$\begin{aligned} \text{EFL Difficulty} = & 164.935 - (18.792 \times \text{Letters per Word}) \\ & - (1.916 \times \text{Words per Sentence}) \end{aligned}$$

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