

In the Name of God



Faculty of Humanities

**The Impact of Semantic and Thematic Clustering on
Enhancing Iranian EFL Learners' Vocabulary Learning**

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باسمه تعالی



تعهدنامه اصالت اثر

اینجانب **مسعود بهرام شرقی** معتمد می‌شوم که مطالب مندرج در این پایان‌نامه حاصل کار پژوهشی اینجانب است و دستاوردهای پژوهشی دیگران که در این پژوهش از آن‌ها استفاده شده است، مطابق مقررات ارجاع و در فهرست منابع و مأخذ ذکر گردیده است. این پایان‌نامه/رساله قبلاً برای احراز هیچ مدرک هم سطح یا بالاتر ارایه نشده است. در صورت اثبات تخلف (در هر زمان) مدرک تحصیلی صادر شده توسط دانشگاه از اعتبار ساقط خواهد شد.

کلیه حقوق مادی و معنوی این اثر متعلق به دانشگاه تربیت مدرس شهید رجایی می‌باشد.

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This thesis is dedicated to all my teachers who helped me whenever I was helpless.

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Abstract

This study investigated the impact of semantic and thematic clustering on enhancing Iranian EFL learners' vocabulary learning considering Interference Theory and Distinctiveness Hypothesis. There were seventy pre-intermediate learners of English in this study that were divided into two experimental groups. Vocabulary was taught in each group with these word clusters: group1 with thematically-related clusters, group2 with semantically-related clusters, and group3 with semantically-unrelated clusters. The results of ANOVA revealed a statistically significant difference in post-assessment vocabulary test scores for the three groups where the mean score for thematically-related group was significantly higher than that of semantically-related group. This suggests that teaching vocabulary with thematically-related sets is more effective than teaching with semantically-related sets.

Keywords: Distinctiveness Hypothesis, Interference Theory, Semantic Clustering, Thematic Clustering

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Chapter One

Introduction

1.1. Introduction

The mastery of vocabulary is central and essential in the process of second / foreign language learning. It facilitates comprehension, one of the primary factors that lead to good progress in second language learning (Lynch, 1996). The role of vocabulary is one of the first aspects of method design to receive attention in second language teaching programs (Richards & Rodgers 2001 p.37). One of the challenges facing the second language learner is how to master a large vocabulary in order to speak, listen to, read and write the target language effectively, and thus communicate successfully and appropriately with others. But vocabulary building has often been downgraded (Judd, 1978), while grammatical and phonological structures have been given more emphasis and considered the starting point in the learning process. This low status for vocabulary building results from the adoption of language teaching approaches based on the American linguistic theories dominant during the 1940s - 1960s (Decarrico, 2001). Teaching vocabulary has not been a central goal of second language English instruction during the very active decades of the mid-twentieth century, nor was it considered a priority in the larger context of language teaching and learning at that time. As a result of this view, learners of English have often faced communication barriers in various situations which require control over a large variety of vocabulary items rather than a narrow range of syntactic structures.

However, this dominant view has been challenged since the late 1970s and early 1980s when more emphasis and considerable attention have been directed to vocabulary building. Educational researchers and psychologists began, even early in this period, to produce a number of word frequency studies in different languages in response to the increasing need for vocabulary control in language courses (Stern, 1983).

As a result of the growing interest in vocabulary building by these researchers, various techniques have been introduced and used to enhance vocabulary instruction.

However, there are still problems. Examining the current English as a foreign language (EFL) textbooks, we find that new vocabulary items are typically presented to EFL students in semantically related sets. Gairns and Redman (1986) call such sets *lexical sets*, while Marzano and Marzano (1988) use the term *semantic clusters*, since the sets are tightly-knit collections of words selected from semantic fields. In simple terms, these sets are composed of words whose syntactic class and meaning are closely related. For example, Costinett (1987) clusters *bed, sofa, chair, table, and dresser* together in the text *Spectrum, 2*. Such sets are indeed semantic clusters, and words within these sets share a common superordinate (headword) such as *furniture*.

Course designers, teachers, and writers have made the largely unexamined assumption that grouping new vocabulary items in related sets facilitates learning. As justification for this approach, curriculum developers say that related words help learners see how knowledge is organized (Dunbar, 1992), and the assumption is made that learning this way does not require more effort. However, educators' dedication to such an argument as this rests on personal methodology rather than on empirical support or theoretical orientation.

Despite the lack of empirical or theoretical basis for these assumptions, teaching systems have quite typically relied on semantic grouping to present vocabulary. For example, the situational approach, developed by the British linguists Palmer and Hornby and introduced in the 1950s and 1960s (Stern, 1993), considers grammatical structures and word lists its basic components. Textbooks based on this approach are still used worldwide. Richards and Rodgers (2001) provide an example of how vocabulary items are presented in the situational approach:

This is [book – pencil, ruler, desk].
[chair, picture, door, window]

Again, empirically, there is little if any direct evidence that such lexical clustering facilitates learning. According to Tinkham (1994), presenting students with new words grouped in semantic clusters is not motivated by empirical support or theoretical concerns. Rather, the writers' loyalty to a specific methodology, whether it be language-centered or more learner-entered, tends to determine the approach they follow in second language development.

1.2. Statement of the problem and purpose of the study

Many ESL textbooks provide vocabulary in semantic sets because the authors believe that presenting vocabulary in this way facilitates learning. Looking at some textbooks, we can see how words are clustered around superordinates or 'headwords'.

Numerous writers (e.g. Channell, 1981; Dunbar, 1992; Neuner, 1992) suggest organizing vocabulary according to semantic clusters and provide justification for this method. They state that semantic clustering of vocabulary help in many ways because of different reasons.

On the other hand, Tinkham (1993), (1997) and Waring (1997) are among the early studies that show learning words in semantically-related methods can impede the acquisition of vocabulary. The recent findings in light of interference theory maintain that learning closely-related items can lead to interference among them which can hinder learning vocabulary at the end. Moreover, recent findings of the distinctiveness hypothesis can also be an explanation to support these results where learning unrelated items can actually help better in maintaining information (Hunt & Elliot, 1980; Hunt & Mitchell, 1982).

Tinkham (1997) calls for the research around psychological relationships among items to be learned. It is the assumption that clustering words around thematically-related topics, which takes place in light of the findings of the interference theory and the distinctiveness hypothesis, smoothes the way of vocabulary learning. While, there are a good

amount of studies concerning the interference theory, research around distinctiveness and thematic studies in vocabulary acquisition research is still growing in the field of second language acquisition.

Recently, numerous studies have investigated the role of vocabulary presentation in achieving effective storing and retrieving of words (Erten&Tekin, 2008; Hashemi&Gowdasiaei, 2005; Hippner-Page, 2000; Papathanasiou, 2009). These studies tried to investigate the methods of presenting vocabulary, either in semantically-related sets or semantically-unrelated sets. Furthermore, Hippner-Page, (2000) and Tinkham, (1997) add one more element, that is thematic clustering to contrast them with the semantic clustering in previous studies.

In the current study, there are three main underlying concerns: the effect of semantically-related sets of vocabulary, semantically-unrelated sets of vocabulary and finally thematically-related sets of words categorizations on the acquisition of new words.

The studies that employ the method of presenting vocabulary in thematically-related set in contrast to studies about semantically-related sets are growing. Therefore, the study had employed the three types of vocabulary sets in one particular setting and a homogeneous group of learners. This way the study tries to put distinctiveness hypothesis and interference theory to test by teaching vocabulary with three different word-clustering (independent variable) to see which one has a better effect on vocabulary learning of Iranian EFL learners (dependent variable).The purpose of the present study is to compare the effects of semantic and thematic clustering on learning English vocabulary by Iranian EFL learners. The two labels are intended to differentiate between two different methods of organizing lexical items. Semantic clustering is based on grouping words that share various semantic and syntactic characteristics, Thematicclustering is based on psychological associations between clustered

words and a shared thematic concept. The terms mother, father, daughter, son provide an example of a semantic cluster. In contrast, a cluster perceived as thematically related would include terms like frog, pond, swim, and green; note that these terms do not refer to semantically similar concepts; however, they cluster around the concept of a pond, and might come to mind when a speaker is thinking about a story involving a pond and its inhabitants.

The present study is motivated by the desire to examine the effect of meaningful thematic and contextual grouping on the learning of vocabulary items in sets. The goal was to investigate whether thematic grouping or the use of meaningful context facilitates vocabulary learning.

1.3. Significance of the Study

Some research has been done about the effects of clustering on developing second language vocabulary. Although two methods of semantic and thematic clustering are being employed in EFL context, most teachers are in doubt which is more effective in learning vocabulary.

Some research has emphasized the interference theory which explores the similarities between a stimulus and its associated response, and hypothesizes about the negative effect of similarities between sets of stimuli on learning and memory. Nevertheless, in light of research motivated by interference theory and, more recently, the distinctiveness hypothesis, the possibility arises that the practice of presenting L2 students with their new vocabulary grouped together in sets of syntactically and semantically similar new words might actually impede rather than facilitate the learning of the words. Only few scholars have studied the effect of clustering on the learning of L2 vocabulary (Tinkham, 1994; Waring, 1997) . By considering this problem in our mind, this study is going to study two types of clustering because it is an important factor in learning vocabulary in an EFL context such as Iran. The

results of the study can be significant for the syllabus designers and authors of ESL/EFL textbooks, in their plans to introduce vocabulary in the course of their lessons. Moreover, English teachers might find this study helpful as they seek to improve or modify the teaching methods they use in order to gain the best results in the learning process.

1.4. Research Question and Hypothesis

Q. Is there a significant difference among three methods of learning vocabulary including semantically-related clustering, semantically-unrelated clustering and thematically-related clustering among Iranian EFL learners?

H. Given the trends in recent research, the hypothesis made at the outset is the following:

There is no significant difference among the three types of vocabulary clustering i.e. thematically-related clustering, semantically-related clustering and semantically-unrelated clustering.

1.5. Definitions of Key Terms

Distinctiveness Hypothesis: This deals with the ease with which distinctive information is learned. It "relates ease of learning to the distinctiveness (non-similarity) of the information to be learned" (Waring, 1997, p. 373). It states that "the most important factor in recognition memory is the extent to which the test-trial encoding contains information that is unique to the study-trial encoding." (Eysenck, 1979)

Interference Theory: For much of the last century, this has been the dominant theory regarding forgetting. It provides evidence connecting learning difficulties to similarities between targeted and interfering materials. It states that "when words are being learned at the

same time, but are too "similar" or share too many common elements, then these words will interfere with each other thus impairing retention of them. The degree of interference increases with the degree to which the interfering material becomes more similar to the material already learned" (Waring, 1997, p. 261- 262).

Lexical set: One word or vocabulary unit is commonly called a lexical item, or a lexeme. When groups of words share "certain formal or semantic features," they are called lexical sets (Crystal, 1997, p.221).

Semantic Clustering: a method of grouping words that share semantic and syntactic characteristics. An example is the group *arm, leg and hand*, which are all body parts; often the term "lexical sets" is also used (Tinkham, 1997, p. 138)

Thematic Clustering: another method of grouping words based upon psychological associations between clustered words and a shared thematic concept.

Unrelated sets: words that do not share semantic or syntactic characteristics

1.6. Limitations and delimitations of the study

There are a few limitations and delimitations that need to be mentioned. One important limitation is that it is possible for the participants to already know the meaning of some of the words presented to them. As for the delimitations, we can say the study is delimited to pre-intermediate level, only male participants are studied and the study is conducted in just three cities.

Chapter Two

Review of Related Literature

2.1.What is vocabulary?

A person's vocabulary is the set of words within a language that are familiar to that person. A vocabulary usually develops with age, and serves as a useful and fundamental tool for communication and acquiring knowledge. Acquiring an extensive vocabulary is one of the largest challenges in learning a second language. Nash and Snowling (2006) describe vocabulary as “the knowledge of words and their meanings” (p. 336). While Sheehan (2002) states vocabulary is “the ability to understand and use words to acquire and convey meaning”. Vocabulary is an essential element of reading instruction and comprehension.

Generally, vocabulary is a list of words, usually in alphabetical order and with explanations of their meanings. A word, in most linguistic analyses, is described as a set of properties, or features, each word is the combination of its meaning, register, association, collocation, grammatical behavior, written form (spelling), spoken form (pronunciation) and frequency. To master a word is not only to learn its meaning but also to learn other aspects. All these properties are called word knowledge (Schmitt, 2000).

2.2.What does it mean to know a word?

Thornbury (2002) in his book “How to teach vocabulary” mentions that at the most basic level, knowing a word involves knowing 1)its form and 2) its meaning. After these two fundamental concepts are established then the learner should know the grammatical behavior, derivations, collocations, register and frequency of the word as well. Similarly Harmer (1993) believes, knowing a word involves knowing its form and its meaning at the basic level. In deeper aspects it means the abilities to know its :

1) Meaning, i.e. relate the word to an appropriate object or context