## In The Name Of God

# Yazd University Faculty of Language and Literature Department of English Language Thesis submitted for degree of M.A.

#### Title:

## The Effect of Semantic and Thematic Clustering as well as Instructional Approaches on Vocabulary Learning

**Supervisiors:** 

Dr. A.A. Jabbari Dr. M.J. Rezai

Advisor:

Dr. H. Allami

M14/4/

Ву

Forough Mirjalili

February 2009

**دانشگاه یزد** دانشکده زبان و ادبیات گروه زبان انگلیسی

پایان نامه برای دریافت درجه کارسناسی ارشد آموزش زبان انگلیسی

## تاثیر دسته بندی موضوعی و معنایی کلمات و آموزش آنها به طرق مختلف درفراگیری لغات

اساتيد راهنما

دکتر محمد جواد رضائی

دکتر علی اکبر جباری

استاد مشاور

دكتر حميد علامي

نگارش

فروغ ميرجليلى

اسفند ۱۳۸۷



# To My Daughter Sonia Saeidi

#### Acknowledgements

My sincerest appreciation first goes to Dr.M.J.Rezaei and Dr.A.Jabbari for supervising this research and for their consistent help and encouragement throughout the course of this work. I must also thank them for the critical reading of this thesis.

I am also extremely grateful to my advisor Dr.H.Allami for his valuable comments and correction.

I would like to thank M.Mirhosseini, a member of the statistics department for his help and guidance.

Finally, I would like to express my deep appreciation to my parents specially my dear father, Dr. G.Mirjalili for his encouragement and help during this study. I would also like to thank my husband for his support and patience. It was my pleasure to carry out my study and raise my daughter, Sonia, at the same time which was both difficult and desirable.

#### **Abstract**

Finding an effective method for vocabulary learning has always preoccupied curriculum developers in general and language teachers in particular. The present study attempts to examine the effects of semantic, thematic and unrelated clustering of words as well as the effects of two instructional approaches, i.e. isolation and context on vocabulary learning.

The subjects of the study constituted 90 learners in three proficiency levels, (1) elementary, (2) pre-intermediate, (3) and intermediate. Each cluster was presented in both isolation and in context. Tests were given immediately after each exposure and also after a two-week interval to examine the effect of time.

A three-way ANOVA was used to analyze the data. The three types of clustering; two instructional methods and three proficiency levels were the independent variables, while the number of recalled words from each eight-word sets was the dependent variable.

The results demonstrated that when the words were presented to the subjects in isolation, they generally recalled the highest number of words from the unrelated set, whereas they could recall the highest number of words from the thematic clustering in context. They also significantly recalled higher number of words in the immediate test as compared to the delayed one. Additionally, the effect of proficiency level did not turn out to be significant.

### **Table of Contents**

Acknowledgements	
Abstract	
Table of contents	I
List of Tables	VI
List of Figures	X
Chapter 1: Introduction	
1.1 Introduction	2
1.2 Statement of the problem	4
1.3 Objectives of the study	5
1.4 Significance of the study	6
1.5 Research questions	6
1.6 Research Hypothesis	7
1.7 Definition of Terms	7
1.8 Outline of the study	8

### **Chapter 2: Review of Related Literature**

	2.1 Introduction	11
	2.2 Semantic Clustering	11
-	2.2.1 Evidence against Semantic Clustering	16
	2.3 Thematic Clustering	19
	2.3.1 Evidence in favor of thematic clustering	21
	2.4 Semantic Clustering Versus Thematic Clustering	22
	2.5 Context.	27
	2.6 Memory	31
Cha	pter 3: Methodology	
	3.1 Introduction	36
	3.2 Subjects	36
	3.3 Materials	37
	3.4 Pilot Study.	43
	3.5 Procedure	44
	3.6 Data Analysis	45
Cha	apter 4: Analysis of the Results	,
٠	4.1 Introduction	48
	4.2 Isolation method and proficiency level	49
	4.2.1 Level 1 (Immediate Tests)	49
	4.2.2 Level 1 (Delayed Tests)	50

4	4.2.3 Level 2 (Immediate Tests)	.52
	4.2.4 Level 2 (Delayed Tests)	.53
2	4.2.5 Level 3 (Immediate Tests)	.55
4	4.2.6 Level 3 (Delayed Tests)	.57
4.3 Isola	ation method and clustering type	.59
2	4.3.1 Semantic clustering (Immediate tests)	.59
2	4.3.2 Semantic clustering (Delayed Test)	.60
2	4.3.3 Unrelated clustering (Immediate Test)	.62
2	4.3.4 Unrelated clustering (Delayed Tests)	.62
2	4.3.5 Thematic Clustering (Immediate Test)	.64
2	4.3.6 Thematic Clustering (Delayed Test)	.65
4.4 Cont	text method and the proficiency level	.68
4	4.4.1 Level 1 (Immediate tests)	.68
4	4.4.2 Level 1 (Delayed Tests)	.70
4	4.4.3 Level 2 (Immediate test)	.71
4	4.4.4 Level 2 (Delayed test)	.73
4	4.4.5 Level 3 (Immediate tests)	.74
4	4.4.6 Level 3 (Delayed tests)	.75
4.5 Cont	text method and clustering type	.78
2	4.5.1 Semantic clustering (Immediate Tests).	.78

	4.5.2 Semantic clustering (Delayed Tests)79
	4.5.3 Unrelated clustering (Immediate Test)81
	4.5.4 Unrelated clustering (Delayed tests)82
	4.5.5 Thematic clustering (Immediate)83
	4.5.6 Thematic clustering (Delayed tests)84
	4.6 Interaction Effects86
	4.6.1 Immediate test86
	4.6.2 Delayed tests90
Chaj	oter 5: Discussion and Conclusion
	5.1 Restatement of the research problem97
	5.2 A Restatement of results97
	5.2.1 Isolation97
	5.2.1.1 Level 198
	5.2.1.2 Level 298
	5.2.1.3 Level 3
	5.2.2 Clustering Type in Isolation100
	5.2.2.1 Semantic clustering
	5.2.2.2 Thematic Clustering100
	5.2.2.3 Unrelated Clustering

	5.2.3. Context101
	5.2.3.1 Level1101
	5.2.3.2 Level2102
	5.2.3.3 Level3102
	5.2.4 Clustering type in context
	5.2.4.1 Semantic Clustering103
	5.2.4.2 Thematic Clustering
	5.2.4.3 Unrelated Clustering104
	5.3 Discussions105
	5.4 Pedagogical implications110
	5.5 Conclusion
	5.5 Limitation of the study112
	5.7 Suggestions for further research112
References	114
Appendix I	121
Appendix II.	122
Appendix III	123
Appendix IV	124
Appendix V	125
Appendix VI	126

•

.

### **List of Tables**

Table 4.1: Descriptive statistics of recalled words (level 1- Immediate test –
Isolation)49
Table 4.2 Post hoc test (level 1- Immediate test - Isolation)50
Table 4.3: Descriptive statistics of recalled words (level 1-Delayed test -
Isolation)50
Table 4.4 Post-hoc test (level 1 - Delayed test – Isolation)51
Table 4.5 Descriptive statistics of Recalled words (level 2 - Immediate test -
Isolation)52
Table 4.6: Descriptive statistics of recalled words (level 2 – Delayed test -
Isolation)53
Table 4.7: Post-hoc test (level 2 – Delayed test – Isolation)
Table 4.8 Descriptive statistics of recalled words (level 3 – Immediate test –
Isolation)56
Table 4.9: Post-hoc test (level 3 – Immediate test – Isolation)
Table 4.10: Descriptive statistics of recalled words (level 3-Delayed test -
Isolation)57
Table 4.11: Post Hoc test results (level 3 – Delayed test –Isolation) 57

Table 4.12: Descriptive statistics of recalled words (All levels-Immediate test-
Semantic list–Isolation)
Table 4.13 Descriptive statistics of recalled words (All levels-Delayed test-
Semantic list – Isolation)
Table 4.14 Descriptive statistics of recalled words (All levels - Immediate test
Unrelated list – Isolation)62
Table 4.15: Descriptive statistics of recalled words (All levels – Delayed test –
Unrelated list – Isolation)63
Table 4.16 Post Hoc Results (All levels-Delayed test-Unrelated list-Isolation)63
Table 4.17: Descriptive statistics of recalled words (All levels – Immediate test –
Thematic list – Isolation)65
Table 4.18: Descriptive statistics of the recalled words (All levels-Delayed test-
Thematic list – Isolation)65
Table 4.19: LSD post-hoc test (All levels - Delayed test - Thematic list -
Isolation)66
Table 4.20: Descriptive statistics of recalled words (level 1 – Immediate test -
Context)69
Table 4.21: Post Hoc (level 1 – Immediate test – Context)
Table 4.22 Descriptive statistics of recalled words (level 1 - Context - Delayed
test)

Table 4.23: Post Hoc Results (level 1 – Context – Delayed test)70
Table 4.24: Descriptive statistics of recalled words (level 2 – Context – Immediate
tests)
Table 4.25: LSD Post Hoc tests (level 2 – Context – Immediate tests)72
Table 4.26 Descriptive statistics of recalled words (level 2 - Context - Delayed
test)
Table 4.27: Descriptive statistics of recalled words (level 3 – Immediate test –
Context)
Table 4.28: Post Hoc Results (level 3 – Immediate test – Context)
Table 4.29: Descriptive statistics of recalled words (level 3 – Delayed test –
Context)
Table 4.30: LSD Post-hoc Results (level 3 – Delayed test – Context)76
Table 4.31 Descriptive statistics of recalled words (All levels – Immediate test –
Semantic list-context)
Table 4.32 LSD Post-hoc Results (All levels – Immediate test – Semantic list –
Context)79
Table 4.33: Descriptive statistics of recalled words (All levels – Delayed test –
Semantic list - Context)80
Table 4.34: Descriptive statistics of recalled words (All levels – Immediate test –
Unrelated list – context)81

Table 4.35: LSD Post-hoc test (All levels, immediate test - Unrelated list -
Context)81
Table 4.36: Descriptive statistics of recalled words (All levels – Delayed test –
Unrelated list – Context)82
Table 4.37: LSD Post-hoc Results (All levels – Delayed test – Unrelated list –
Context)83
Table 4.38 Descriptive statistics of recalled words (All levels – Immediate test –
Thematic list - Context)83
Table 4.39: Descriptive statistics of recalled words (All levels - Delayed test -
Thematic list Context)84
Table 4.40: Descriptive statistics of recalled words [Three levels – Three conditions
- Two methods - Immediate test]87
Table 4.41 Three way ANOVA model for immediate test
Table 4.42: LSD Post-hoc tests (All levels – Immediate test – Two methods)89
Table 4.43: LSD Post-hoc tests (All conditions – Delayed – Two methods)89
Table 4.44: Descriptive statistics of recalled words (Three levels – Three clusters –
Two methods – Delayed test)91
Table 4.45: Three-way ANOVA model for the delayed test
Table 4.46: LSD Post-hoc tests (All levels – Delayed Test – Two methods)93
Table 4.47: LSD Post-hoc tests (All condition – Delayed tests – Two methods)93

## **List of Figures**

Figure 4.1 Bar graph of scores in relation to types of clustering (level 1-
Immediate and Delayed test – Isolation)
Figure 4.2 Bar graph of scores in relation to types of clustering (level 2 -Immediate
and Delayed test – Isolation)55
Figure 4.3 Bar graph of score in relation to types of clustering (level 3 – Immediate
and Delayed test – Isolation)58
Figure 4.4 Comparison of all levels (Immediate, Delayed-Isolation)59
Figure 4.5 Bar graph of scores in relation to the subjects' level (All levels -
Immediate and Delayed test – Semantic list - Isolation)
Figure 4.6 Bar graph of score in relation to the subjects' level (All levels -
Immediate and Delayed Test – Unrelated list Isolation)
Figure 4.7 Bar graph of score in relation to level of subjects (All levels –Immediate
and delayed test – Thematic list – Isolation)
Figure 4.8 Comparison of the three clusters (Immediate, Delayed - Isolation)68
Figure 4.9 Bar graph of scores in relation to the types of clustering (level 1 – context
Immediate and Delayed test)71
Figure 4.10 Bar graph of the scores in relation to types of clustering (level 2 -
Context – Immediate and Delayed test) 74

Figure 4.11 Bar graph of scores in relation to types of clustering (level 3 –Immediate
and Delayed test – Context)77
Figure 4.12 Comparison of three levels (Immediate, Delayed-Context)78
Figure 4.13 Bar graph of score in relation to level of subjects (All levels -
Immediate and Delayed test – Semantic list – Context)80
Figure 4.14 Bar graph of score in relation to level of subjects (All levels -
Immediate and delayed test – thematic list – context)85
Figure 4.15 Comparison of the three clusters (Immediate, Delayed-Context)86
Figure 4.16 Line graph of comparison between isolation and context in the
immediate test90
Figure 4.17 Line graph of comparison between isolation and context-Delayed
test94
Figure 4.19 Comparison of the two methods (Immediate Deleved)

## Chapter 1

#### Chapter 1

#### 1.1 Introduction

Vocabulary is a core component of language proficiency and provides much of the basis for how well learners speak, listen, read and write. Without an extensive vocabulary and strategies for acquiring new vocabulary, learners find it difficult to make use of language learning opportunities around them. Vocabulary knowledge is essential in the process of language learning. Teaching vocabulary becomes more important when considering the future of L2 students because without knowledge of a large number of word meanings students cannot make sense of what they are reading or accurately communicating through writing.

Unfortunately, vocabulary teaching and learning were neglected in the past (Renandya & Richards 2002:255). During the active decades of the mid – twentieth century, vocabulary building was not a priority for researchers or curriculum designers in the context of language teaching and learning. In fact, vocabulary was ignored and downgraded. More emphasis was given to grammatical and phonological structures and teaching vocabulary was not a central goal of second language learning. As a result, learners of English often faced communication barriers in various situations which required a mastery of vocabulary.

Recently, there has been a renewed interest in the nature of vocabulary and its role in learning a language. More emphasis and considerable attention have been paid to vocabulary learning. Various techniques have been introduced and used for teaching vocabulary as a result of which researchers have started testing and

evaluating these techniques. Thematic and semantic clustering was among these strategies proposed by educational researchers and psychologists. Currently new vocabulary items are typically presented to ESL / EFL students in semantically and thematically related sets in the current ESL (English as Second Language) textbooks. Various studies have been conducted on these techniques during the last two decades such as Tinkham (1993, 1997), Waring (1997), and Finkbeiner and Nicole (2003).

As we go through textbooks one of the clusters that we are faced with is semantic clustering of words. They are sets of tightly related collections of words composed of lexical items whose syntactic class and meaning are closely related. For example, Molinsky and Bliss (1989) cluster daughter, husband, mother, brother, aunt, uncle, cousin, grandmother and grandfather in a unit entitled, "My Favorite Photographs" in a book entitled 'Side by Side 1'. All of these words share a common super-ordinate or head term. The assumption that grouping new vocabulary items facilitates learning has caused course designers, teachers and writers to apply it in their curriculum development projects. As a justification of this approach, curriculum developers argue that related words help learners see how knowledge is organized (Dunbar,1992), and the assumption is made that learning this way does not require much effort. However, their belief rests on personal methodology rather than empirical support or theoretical orientation.

Although little empirical support or theoretical assumption exists on the matter, some textbooks have relied on semantic grouping to present vocabulary. There is little of any direct evidence that such lexical clustering facilitates learning.

According to Tinkham (1993), presenting students with new words grouped in semantic clusters is not motivated by empirical support or theoretical concerns.