

Ain Shams University
Faculty of Education
Department of
Curriculum and Instruction

The Effect of Using "Dual Coding" on Developing EFL Preparatory Stage Students' Vocabulary Use

A Thesis

Submitted in Partial Fulfillment of the Requirements for the M.A. Degree in Education (Curriculum and Instruction - EFL)

Prepared by

Alaa Mohamed Abou Sree Abd El-Gawad

Supervised by

Dr. Asmaa Ghanem Gheith

A Professor of Curriculum and Instruction (EFL), Faculty of Education, Ain Shams University

Dr. Dalia Ibrahim Yahya

A Lecturer of Curriculum and Instruction (EFL), Faculty of Education, Ain Shams University



جامعة عين شمس كلية التربية قسم المناهج وطرق التدريس

أثر استخدام "التشفير الثنائي" على تنمية استخدام المفردات اللغوية الرادية الإنجليزية لدى تلاميذ المرحلة الإعدادية

بحث مقدم للحصول على درجة الماجستير في التربية تخصص المناهج وطرق التدريس - لغة إنجليزية

إعداد

آلاء محمد أبوسريع عبدالجواد

إشراف

د./ دالیا إبراهیم یحیی

مدرس المناهج وطرق التدريس -لغة إنجليزية كلية التربية جامعة عين شمس أ.د/ أسماء غانم غيث

أستاذ المناهج وطرق التدريس -لغة إنجليزية كلية التربية جامعة عين شمس

Study Title: The Effect of Using "Dual Coding" on Developing EFL Preparatory Stage Students' Vocabulary Use

Author: Alaa Mohamed Abou Sree Abd El-Gawad

Advisors:

- 1- Dr. Asmaa Ghanem Gheith, Professor of Curriculum and Instruction (EFL), Faculty of Education, Ain Shams University.
- 2- Dr. Dalia Ibrahim Yahya, Lecturer of Curriculum and Instruction (EFL), Faculty of Education, Ain Shams University.

Institution: Faculty of Education, Ain Shams University, Department of Curriculum and Instruction.

Academic Year: 2018/2019

ABSTRACT

The study aimed to design a dual coding based program to develop EFL preparatory stage students' vocabulary use. The design of the present study was based on the one-group design. Participants of the study were a class of 2nd year, preparatory stage students (n=30) in Dar Al-Eloum preparatory school, Al-Salam administration, in the academic year 2017/2018. The study started with a review of literature and previous studies related to dual coding, animation as well as vocabulary use. The study utilized the following three instruments: a list of vocabulary use components, a pre/post vocabulary use test, and an analytic vocabulary use rubric. Then, the researcher designed the study program based on dual coding. In this study, the researcher used animated short stories as an audiovisual material to expose participants to use language in various contexts. They received training on vocabulary use through the proposed program based on dual coding. The participants' scores on the pre and posttest were statistically analyzed, using t-test and effect size. A qualitative analysis of the participants' performance was also conducted. Results revealed that using dual coding was effective in developing the second-year preparatory stage students' vocabulary use.

Keywords: Dual coding, EFL vocabulary use.

Acknowledgements

I would like to express my deep gratitude for my advisors, **Dr. Asmaa Ghanem Gheith** and **Dr. Dalia Ibrahim Yahya** for their unconditional and continuous support, enormous patience and thoughtful guidance.

I must acknowledge the limitless encouragement and freedom granted to me by **Dr. Asmaa Ghanem Gheith** to design, implement and report a research that met my interests and that challenged me to discover new skills and resources within myself. She has provided me with tremendous support and responsiveness and greatly assisted me with her insightful comments and continuous feedback in refining and editing my research. I warmly thank her for trusting in my abilities and for always encouraging me to go on. I owe her a lot.

I am very grateful to **Dr. Dalia Ibrahim Yahya** for the confidence she demonstrated for my work and abilities, and for the thoughtful, constructive feedback she consistently provided me. She always drew my attention to things I had not been aware of. She has helped and supported me with her thorough comments and remarks.

I would also like to thank **Dr. Zeinab El-Naggar**, professor of Curriculum and Instruction (EFL), Faculty of Education, Ain Shams University, for accepting to examine this study and to be a part of the oral examination committee. I thank her for her valuable comments and remarks and for her valuable time and effort to enhance and enrich my work.

Thanks and appreciation are extended to **Dr. Heba Mostafa Mohamed**, assistant professor of Curriculum and Instruction (EFL), Faculty of Education, Beni Suef University, for accepting to be a part of the oral examination committee and to examine this study. I thank her for her insightful comments and remarks and for her valuable time and effort to help me refine my work.

I deeply thank each of my wonderful students who participated in the study and helped me through the experimental part.

My sincere gratitude goes to my beloved family whose unconditional love and support have helped me all through the research journey; especially, my father who represents the source of motivation to do this research, my wonderful mother, for her constant support and encouragement. I am also indebted to my brother for his silent contributions and faith in my abilities, my precious sisters, for their spiritual support and endless love. Without their contributions of time and thoughtful help, this research would not have possible. Finally, I thank my dear daughter, Mariam, whose love has urged me to keep on. She remains more than anything I can put in words.

Table of Contents

Content	Page
Abstract	i
Acknowledgements	ii
Table of Contents	iv
List of Tables	viii
List of Figures	x
Chapter One	
Background and Problem	1
Introduction	1
Context of the Problem	6
The pilot study	8
Statement of the Problem	11
Study Questions	11
Hypotheses	11
Delimitations of the Study	12
Definition of Terms	13
Vocabulary Use	13
Dual-Coding Theory	13
Significance of the Study	14
The Organization of the Remainder of the Thesis	14
Chapter Two	
Review of Literature and Related Studies	15
EFL Vocabulary Use	15
Importance of vocabulary use in TEFL	16
Purpose of EFL vocabulary use mastery	18
Role of vocabulary use in teaching language	as
communication	
Vocabulary use and prior knowledge	
Vocabulary acquisition and vocabulary use	
Complexity of vocabulary use learning and teaching	23

Teachers' role in vocabulary use instruction	24
Vocabulary use for the preparatory stage students	24
Techniques of teaching vocabulary use	26
Problems of vocabulary use development	28
Promoting vocabulary use development	31
Vocabulary use assessment	32
Dual Coding	33
Use of technology in EFL teaching and learning	33
Teacher's role in the multimedia classroom	34
Learner's role in the multimedia classroom	35
The bases and systems of dual coding theory	35
Types of processing in dual coding theory	36
Dual coding theory and prior knowledge	38
Basic principles of dual coding theory	40
Dual coding theory and EFL teaching and learning	41
Dual coding theory and vocabulary use	43
Animation	45
Animation as a device of dual coding	46
Effects of combining visuals with text	47
Animation and EFL teaching and learning	48
Animation and vocabulary use	51
Digital Storytelling	54
Digital storytelling as a device of dual coding	54
Digital storytelling and vocabulary use	55
Questioning	57
Digital storytelling, questioning and vocabulary use	58
Commentary	60
Chapter Three	
Methodology	63
Study Design	63
Study Variables	
Participants	
Instruments and Materials	
A Checklist of vocabulary use components	
Purpose of the checklist of vocabulary use	
±	

	Description	of	the	checklist	of	vocabulary	use
	components			• • • • • • • • • • • • • • • • • • • •			64
	Pre-post vocabula	ıry us	e test.			· · · · · · · · · · · · · · · · · · ·	65
	Purpose of the	e test.					65
	Description of	f the t	est	• • • • • • • • • • • • • • • • • • • •			66
	Validity of the	e test.		• • • • • • • • • • • • • • • • • • • •			70
	Piloting the te	st					71
	Duration of th	e test	- /•••••				71
	Reliability of	the te	st				71
	An analytic vocab	oulary	use ru	ıbric			73
	Purpose of the	e anal	ytic vo	ocabulary use	rubri	c	73
	Description of	f the a	analyti	c vocabulary	use r	ubric	73
	The Dual Coding	Base	d Prog	ram		· · · · · · · · · · · · · · · · · · ·	73
	The framewor	k of t	the pro	gram		• • • • • • • • • • • • • • • • • • • •	73
	Aim of the pro	ogran	1				73
	Performance of	object	ives				74
	Description of	f the p	prograi	m			74
	Technological	l aids	and m	aterials used		· · · · · · · · · · · · · · · · · · ·	77
	Piloting the pr	rograi	m			· · · · · · · · · · · · · · · · · · ·	77
	Duration of tr	eatme	ent				78
	Assessment to	echnic	ques			· · · · · · · · · · · · · · · · · · ·	79
Chap	ter Four						
Resul	ts and Discussion	1	•••••	•••••	•••••	•••••	80
Th	ne Statistical Anal	ysis					80
Re	esults of the Study						81
	The first hypothes	sis					81
	The second hypot	hesis				• • • • • • • • • • • • • • • • • • • •	83
	The third hypothe	sis					85
	The fourth hypoth	nesis.					87
	The fifth hypothe	sis		• • • • • • • • • • • • • • • • • • • •			89
	The sixth hypothe	esis				· · · · · · · · · · · · · · · · · · ·	91
	The seventh hypo	thesis	S			· · · · · · · · · · · · · · · · · · ·	92
	The eighth hypoth	nesis.					94
Di	scussion of Resul	ts					97
Qı	ualitative Analysis	and	Discus	sion			100

Analysis of the participants' performance through the	_
program with regard to the targeted vocabular components	•
A critical analysis of the participants' production in the vocuse pre-posttest through adopting the rubric items	cabulary
Commentary	
Analysis of the participants' opinions about the	•
program.	
Drawbacks and Challenges	133
Conclusion	134
Chapter Five	
Summary, Conclusions and Recommendations	135
Summary	135
Findings	
Conclusions.	
Recommendations	
Suggestions for Further Studies	140
References	141
Appendices	
Appendix (A): Pilot Vocabulary Use Test	160
Appendix (B): List of Vocabulary Use Components	163
Appendix (C): Pre-post Vocabulary Use Test	164
Appendix (D): Vocabulary Use Test Specification Tables	169
Appendix (E): Analytic Vocabulary Use Rubric	172
Appendix (F): Outline of the Study Program	174
Appendix (G): Framework of the Study Program	179
Appendix (H): The Study Program	225
Appendix (I): School's Statement of the Study Administration	312
Appendix (J): Participants' Photos during the Treatment	313
Summary in Arabic	

List of Tables

Table	Title	Page
Table (1): V	ocabulary use components and their relative weight	66
Table (2): S	pecification table for vocabulary use test	68
Table (3): R	leliability	72
Table (4): In	nternal consistency	72
Table (5): S	tory's duration and sessions	79
Table (6): C	Criteria for identifying the effect size of t value	81
	t-test results of the pre-post vocabulary use test	
'identifying	t-test results of the pre-post vocabulary use test reg the meaning of new words through a c	ontext
	t-test results of the pre-post vocabulary use test regnew meanings of a word' component	_
'identifying	t-test results of the pre-post vocabulary use test reg the ideas, values or feelings associated with a	word
'identifying	t-test results of the pre-post vocabulary use test reg a word family and word building devices for m purposes' component	eaning
	t-test results of the pre-post vocabulary use test reg appropriately in various contexts' component	•
'reflecting n	t-test results of the pre-post vocabulary use test reg new items through prior knowledge in various co	ontexts
	t-test results of the pre-post vocabulary use test regord associations in meaningful contexts' component	

Table (15): Referential framework for the rubric of pre/posttest	•
Table (16): Results of a slow level participant (in the vocabulary use pre/posttest.	1 ,
Table (17): Results of an intermediate level participant (p the vocabulary use pre/posttest.	1 ,
Table (18): Results of an advanced level participant (participant vocabulary use pre/posttest	,

List of Figures

Figure	Title Pa	ıge
	A dual-coding model for processing animation and speed p. 17)	
_	A cognitive theory of multimedia learning (Mayer, 2010	
_	A cognitive theory of multimedia learning (Mayer, 2010	
_	Tasks and rate at which information is remembered (JC	
_	The difference between the participants' mean scores on to bulary use test as a whole	
pre-posttest re	The difference between the participants' mean scores on the egarding 'identifying the meaning of new words through onent	ı a
pre-posttest	The difference between the participants' mean scores on to regarding 'generating new meanings of a wo	rd'
pre-posttest re	The difference between the participants' mean scores on the garding 'identifying the ideas, values or feelings associated component	ted
pre-posttest r	The difference between the participants' mean scores on the degarding 'identifying a word family and word building eaning construction purposes' component	ing
pre-posttest r	The difference between the participants' mean scores on to egarding 'using words appropriately in various context.	kts'
pre-posttest re	The difference between the participants' mean scores on the garding 'reflecting new items through prior knowledge exts' component.	in
pre-posttest	The difference between the participants' mean scores on tregarding 'using the word associations in meaning ponent.	ful