The Effect of Using Concept Maps in Teaching Writing on Eleventh Grade Female Students' Achievement and Perceptions of Writing Using this Strategy

تأثير استخدام الخرائط المفاهيمية على تحصيل طالبات الصف الحادي عشر في كتابة المواضيع الإنشائية وعلى اتجاهاتهم نحوها

By

Ghada Abualhommos

Advisor

Dr. Anwar Abdel Razeq

Birzeit University

Palestine

2012

College of Education

Department of Curriculum and Instruction

The Effect of Using Concept Maps in Teaching Writing on Eleventh Grade Female Students' Achievement and Perceptions of Writing Using this Strategy

BY

Ghada Abualhommos

Committee Members

Dr. Anwar Abdel Razeq (Chairperson)

Dr. Khawla Shakhshir (Member)

Dr. Hasan Abdelkareem (Member)

This Thesis was submitted in partial fulfillment of the requirements for the Master's Degree in Education from the Faculty of Graduate Studies at Birzeit University

Palestine

2012

The Effect of Using Concept Maps in Teaching Writing on Eleventh Grade Female Students' Achievement and Perceptions of Writing Using this Strategy

By

Ghada Abualhommos

has been approved

September 2012

Approved

Dr. Anwar Abdel Razeq .....**Chairman**

Dr. Khawla Shakhshir. .....**Committee Member**

Dr. Hasan Abdelkareem.....**Committee Member**

Supervisory Committee

Abstract

This study investigated the effect of individual Concept Mapping (CM) as a pre-writing planning strategy on English Language Learners' (ELL) writing performance on different modes of writing. The present study also intended to investigate the effect of the explicit teaching of CM on ELL's knowledge and skills pertaining to vocabulary, organization, grammar and punctuation. An experimental design study was implemented at a female high-school in Palestine. Fifty six eleventh grade students were divided in two equal groups: non-mapping group (Control) and mapping group (Experimental Group). The study focused on differences in the effect of individual paper-and-pencil CMs under three conditions: in-class writing tasks, exams and home assignments. A pre-assessment on writing was administered before treatment. Instruction was focused on the use of CM as a prewriting strategy for expository and argumentative essays for the Experimental Group while the Control Group followed the traditional way of writing to write these modes. To analyze the results, the study used Independent Sample T-Test and ANOVA Test on composition scores. The results of the pre-tests and posttests of the two groups scored by two raters based on predetermined criteria (an analytical rubric) were compared. Descriptive statistics was also used to analyze the student survey responses. The findings indicated that the Experimental Group who used CMs scored significantly higher than the Control Group in all areas of writing. Analysis of the questionnaire results regarding the usefulness of CMs indicated that the majority of students were satisfied with using CMs activities for writing. The study provided experimental evidence that using CMs as a pre-writing planning strategy is very beneficial in teaching English as a foreign language. It was concluded that CMs used effectively have the potential to enhance students' writing skills. As a result of the study some pedagogical implications and recommendations for using CMs in teaching writing to ELL learners are discussed.

الملخص

هدفت هذه الدراسة إلى معرفة اثر الخرائط المفاهيمية على الأداء الكتابي لمتعلمي اللغة الانجليزية في أنماط الكتابة المتعددة وذلك عند استخدامها بشكل فردي كإستراتيجية تخطيط تمهد للكتابة. وهدفت هذه الدراسة أيضا إلى معرفة أثر التعليم الصريح للخرائط المفاهيمية على معرفة ومهارات متعلمي اللغة الانجليزية المتعلقة بالمفردات، تنظيم الأفكار، النحو وعلامات الترقيم. اتبعت هذه الدراسة التصميم التجريبي وتم تطبيقها في مدرسة ثانوية للبنات في فلسطين. تم تقسيم ست وخمسين طالبة من طالبات الصف الحادي عشر إلى مجموعتين متساويتين: واحدة لم تستخدم الخرائط وسميت بالمجموعة الضابطة وأما الأخرى قامت باستخدام الخرائط ولذلك سميت بالمجموعة التجريبية. ركزت هذه الدراسة على الاختلافات الناتجة من استخدام الخرائط التي ترسم باليد وبشكل فردي تحت شروط ثلاث: الإنشاء الذي يكتب داخل الغرفة الصفية في الظروف الطبيعية، الإنشاء الذي يكتب كاختبار صفي، والإنشاء الذي يكتب في المنزل كواجب بيتي. قبل أداء التجربة تم إعطاء امتحان قبلي لضمان تكافؤ المجموعات وليكون أساسا" للمقارنة مع الامتحانات الكتابية التي تم إعطاؤها فيما بعد. وتركز التعليم لهذه الإستراتيجية على أنواع الكتابة الوصفية والتفسيرية والأخرى الجدلية للمجموعة التجريبية أما المجموعة الضابطة فاتبعت الطريقة التقليدية في كتابة هذه الأنماط من الإنشاء. ولتحليل النتائج، استخدمت الباحثة الاختبارين الإحصائيين التاليين: Independent Sample T-Testو ANOVA لتحليل علامات الطالبات. وقد قورنت نتائج الامتحانات القبلية والبعدية والتي صححت من جانب الباحثة ومعلمة أخرى ذات خبرة وفقا" لمعايير محددة ومفصلة (Analytical rubric). كما تم استخدام الإحصاءات الوصفية لتحليل إجابات المجموعة التجريبية للاستبانة التي تم توزيعها بعد انتهاء تطبيق الخرائط المفاهيمية. وقد دلت النتائج على أن المجموعة التجريبية وبسبب استخدامها للخرائط المفاهمية كانت علاماتها تفوق علامات المجموعة الضابطة في جميع المهارات الكتابية. وأشار تحليل نتائج الاستبانة إلى أن الغالبية العظمى من الطالبات كن شاعرات بالرضي نتيجة استخدام أنشطة الخرائط المفاهمية قي كتاباتهن مما دل على مدى الإفادة من استخدام الخرائط المفاهمية . قدمت هذه الدراسة دليلا" تجريبيا" على أن استخدام الخرائط المفاهمية كإستراتيجية تخطيط للكتابة مفيدة في تعليم اللغة الانجليزية كلغة أجنبية. وقد استنتج انه إذا تم استخدام الخرائط المفاهمية على

نحو فعال فستكون لها القدرة على تعزيز مهارات الطلبة الكتابية. ونتيجة لهذه الدراسة، تم مناقشة بعض الآثار والتوصيات التربوية لاستخدام الخرائط المفاهمية في تدريس الإنشاء في اللغة الانجليزية كلغة أجنبية.

Acknowledgement

I would like to thank all my professors, friends, family and students, who contributed to my thesis study. Completion of the research and the writing of this thesis would not have been possible without their support, encouragement and guidance.

Foremost, I would like to gratefully and sincerely thank my advisor, Dr. Anwar Abdel Razeq. His endless patience, steady encouragement and high expectations as well as his trust in my research work has been inspiring and has supported me throughout the whole process of writing this thesis. He has given much time and devotion in advising and helping me complete and shape this study. I am indebted to you Dr. Anwar for providing me with thorough valuable feedback, encouraging me to enjoy this once-in-a-lifetime experience and being there for me when I needed you. My heartfelt thanks to you, Dr. Anwar Abdel Razeq.

I would like to acknowledge the contributions of my other committee members, Dr. Hassan Abdel Kareem and Dr. Khawla Shakhsheer in the completion of this thesis. They have kindly given their valuable time to read this work and give critical feedback. Their input has contributed greatly to my work. I would also like to thank Dr. Mousa Khaldi for his helpful advice concerning methods and statistical analysis for my thesis.

A special note of appreciation is extended to all the participating students and my special friend, the teacher of the pilot study and the one who helped me with the correction of all the participants' papers, Mrs. Maha Mousa, for her endless sincere support, encouragement, enthusiasm, as well as her belief in me.

To my parents, my children (Ameen, Tala and Ma'moun), my sister, my brothers, my mother in law, I wish to express my thanks and deep gratitude. Their strong support, encouragement and unconditional love inspired and motivated me along the way in this thesis journey. I am truly grateful for what they did for me so I could complete this study.

Finally, I would like to acknowledge the patience and the big heart of my husband, Arafat, who from the beginning of this study, gave me all his constant support, understanding, great love and emotional help. Without you Arafat, I could not realize my lifelong dream. This thesis is dedicated to you.

Table of Contents

Chapter		Page
1	Introduction……..	1
	Statement of the Problem…….	5
	Research Questions……..	8
	The Purpose of the Study……..	9
	Significance of the Study……..	9
	Definition of Terms……..	10
2	Theoretical Framework……..	12
	Cognitivism…….....	12
	The Information Processing Theory…….	13
	Constructivism……..	13
	Ausubel's Assimilation Theory: Meaningful Learning……	15
	The Schema Theory……...…….....	17
	Concept Maps as Graphic Organizers……..	18
	The Application of Concept Maps in Writing Classes…….	21
	Brainstorming, Outlining, and Mapping……..	22
	Mapping and Activating Vocabulary……	24
	Direct Instruction and Teacher's Role in Building a Concept Map.	25
	The Writing Process Theory…….	27
	Summary……..	34
3	Literature Review……	36
	Concept Mapping as a Prewriting Strategy……..	37
	Prewriting Strategy Research……...	39
	Studies Using Concept Maps.....	44
	Reading, Writing and Concept Mapping…….	47
	The Effect of the Graphic Organizers on EFL Students' Writing...	49
	Effects of Computer-Based Concept Mapping on Prewriting……..	51

Chapter		Page
	Students 'Attitudes Towards Strategy-based Learning……..……	52
4	Research Methods…….	55
	Methods and Procedures……...	55
	Location of the Study……	55
	Research Design……...	56
	Procedures…….	57
	Pre-assessment of Writing……	58
	Concept Mapping Training……...	58
	Writing Sessions……...……	59
	Instrumentation…….	59
	Instructional Protocol……	59
	The Analytical Rubric……...	60
	The Writing Tasks……	62
	Student Survey of the Concept Mapping process…….	63
	Data Analysis……	63
	The Pilot Study…….	64
	Instrument Validation Procedures……	65
	Validation and Reliability of the First Two Master Maps……	67
5	Results……...	69
	Introduction……..	69
	Assessment of Students' Writing Tasks……...	69
	Pre-test Performance…….	70
	Concept Maps and Their Effects on Students' Writing……	71

Chapter		Page
6	Discussion, Implications and Conclusions……...	84
	References…….	98
	Appendices……...	110
	A Writing Prompts……..	111
	B Assessment Rubric……...	114
	C The Perceived Usefulness of Concept Mapping Questionnaire	116
	D Samples from the Teacher's Manual "Teacher-constructed Maps"……...	118
	E Tests of Reliability for the Two Raters……	136
	F Samples of Errors Committed by the Experimental Group……...	139
	G Samples of writings from the Control Group……..	142
	H Samples of Student- Drawn Concept Maps…….	144

List of Tables

Table	Page
1 The Pre- test Writing Mean Scores for the Control and the Experimental Groups and the Independent Sample T-Test……	70
2 The Mean-Scores and the T-Test Results for the 17 Post Tests…….....	71
3 The T-Test and the Mean Post- test Scores Regarding Vocabulary and Length……...	72
4 The T-Test and the Mean Post- test Scores Regarding Organization and Form……..	73
5 The T-Test and the Post- test Mean Scores Regarding Grammar……..	73
6 The T-Test and the Post- test Mean Scores Regarding Punctuation……..	74
7 Students' Perceptions towards Concept Mapping as an Instructional Strategy…….	76
8 Frequency Distribution of Students' Perceptions towards Concept Mapping……..	77
9 Descriptive Statistics of the 17 Post-test essays Total Gains by Groups Reclassified According to the Three Writing Task Conditions……	81
10 Results of One way Analysis of Variance (ANOVA) Test of the Three Writing Conditions on Total Composition Scores……...	82
11 Post Hoc LSD Results (Multiple Comparisons) for the Three Writing Task Conditions by Group……	83
12 Reliability for Teacher#1Test-Retest……...	136
13 Reliability for Teacher #2 Test-Retest…….	136
14 Reliability for Teacher #1Pretest……..	136
15 Reliability for Teacher #1 Post Test…….....	136
16 Reliability for Teacher #2 Pretest…….....	136
17 Reliability for Teacher #2 Post Test…….....	137

Table **Page**

18 Univariante Analysis of Variance……..... 137

19 Reliability for the Questionnaire Distributed to the Pilot study…….... 138

List of Figures

Figure **Page**

1 The Hayes-Flower Model (1981)…… 28
2 The Parking Lot of “Health in Palestine”…… 120
3 Paragraph #1……..... 121
4 A Concept Map for the Thesis Statement……... 122
5 Paragraph # 2……... 123
6 Paragraph #3……..... 124
7 Paragraph #4……..... 125
8 Paragraph #5……..... 126
9 What is a Complex Sentence?..... 127
10 The Layout for the Formal Letter…….. 129
11 Writing Related to literature Classes (1)……... 132
12 Writing Related to Literature Classes (2)…….. 133
13 Fill in the map (1)……..… 134
14 Fill in the map (2)…… 135
15 A Sample from an experimental group subject shows the overuse of “and"…… 140
16 A Sample from an Experimental Group Subject shows the Effect of L1 nominal Sentences…….. 141
17 Sample #3 shows some errors done by the Control Group……... 143
18 Sample #4 is taken from an argumentative essay written by a subject from the Experimental Group……. 145
19 Sample #5 is taken from an expository essay written by a subject from the Experimental Group…… 146

Chapter one

Introduction

Writing is the most complex language process. The command of writing is supposed to be based on rational thought and intentional language. Indeed, it incites students, whether in elementary school or college, to behave as having an ache whenever they have a task to write. A lot of active students face a momentary paralysis of mind and muscles whenever they are asked to tackle a blank page. They are seen with pens solid in hands, ideas blocked in minds, worries growing and rapidly retreating from their already small store of self-confidence (Buckley & Boyle, 1981). On the other hand, writing is a great tool for students to use, to state their thoughts and feelings and to wrap up what they have read, seen, or experienced. As learners keep on to expand their comprehension of the writing process and the components of writing, they will be able to articulate themselves more assertively and efficiently (A Guide to Effective Instruction in Writing, 2005).

Thus, the question that needs to be raised is what can be done to help students become assertive and effective writers? No doubt that writing can be taught. Indeed, writing is a skill that can be developed and a craft that can be learned. Many teachers believe that writing is a skill that should be taught and that pre-writing should be taught since it facilitates its acquisition (Antonazzi, 2005). To some extent, writing handicaps can be overcome and native talent can be enhanced by thoughtful and skilled instruction (Neman, 1980). Creating writers is mainly based on this assumption that thinking and writing have a very strong connection. Smith (1982) argues that writers don't think then they write. Yet, these happen at the same time. Flores (2007) believes that the act of writing generates thoughts and, thus, can guide writers' flow of thought. He also believes that critical thinking, in contrast to rote memorization, includes active and clever display of higher-order thinking skills (analysis, synthesis, and evaluation) among students. Thus, Schultz (1991) argues that teachers should be aware of the cognitive processes involved in learning different modes of writing. Basically, the

descriptive, narrative, and expository modes can all be classified as empirical forms of writing that fundamentally describe linear cognitive processes.

Even though exposition needs to some extent larger level of abstraction, a child is in the same way able to clarify gradually how to carry out some task or to write his or her observations. The descriptive, narrative, and expository types accordingly portray mainly lower-level, linear thinking methods. Also, so as to create such essays, writers frequently think chronologically or hierarchically associating together events, descriptions or expressing a methodical clarification, but with no essentially having to request subordination of ideas or predication which is referred to sentence- making (Miles,1979). The organizational layout of such essays is basically indicated by the assignment itself. On the other hand, the argumentative essay relies on more complicated higher-level cognitive processes. In generating an argumentative paper, writers first think of a central concept. Then, writers from there produce any number of connected and sometimes unconnected ideas. Doing this might cause writers to revise and even drop the original central idea as they think deeply upon implications and check the validity of their assumptions (Schultz, 1991). Therefore, in the process of drafting the first draft of an essay, writers usually construct what Flower (1987) calls a multidimensional association of ideas. Thus, this movement from lower to higher level of thinking required in writing argumentative essays demand from language teachers to become aware of students' command of language and grammar (Schultz, 1991).

All higher- order thinking skills could be seen (as previously illustrated) in writing essays. Essay writing is believed to be a distinctive way of learning because it entails a dynamic (learning by doing), iconic (learning by representation in a picture) and figurative learning. That is, learning by restatement in words. One condition which guarantees writing well (any mode of writing including writing essays) is to think well. The method of mapping aids in that it teaches the most important thinking skills of recalling ideas, arranging them and constructing thoughts (Villalano & Calvo, 2011). If students use mapping, these three cognitive skills which are crucial to writing can be willingly adopted

and to some degree done in a perfect way. Buckley and Boyle (1981) stress the importance of recalling ideas as they believe that learners do not write writing. They write thoughts. If thoughts are not to be missing, they have to be written and fastened down so that they could be seen, presented, and reachable to the writer. However, the amount of thoughts, regardless how rich they are and of little benefit if not, are arranged and classified into sets and named.

While moving from the first skill to the second skill as stated by Villalano and Calvo (2011), the learners will inquire about these two issues. Which of these thoughts go together? And what shall I name that set? Learners will translate their record of words into kinds of meanings that match the theme. The learners are now prepared to move from general theme to definite thesis statement. By over viewing the classifications and all the thoughts joined with them, the learners can choose one that they in person wish for to write about. These classifications will be detached paragraphs of the writing. Choosing classifications and organizing them in a series will facilitate the learners then to build or map their thoughts or their themes. Reaching the third skill and on a sheet of paper, the learners portray a large geometric form. They begin dividing from above central smaller lines. Throughout this, learners achieve a sense of self-assurance and manage when they complete an inclusive map. Both the learners and the teacher get from mapping. While learners map, their instructor can move among the learners in the room and can see the students' suggested building of thoughts and the previews of events to come. At this prewriting phase which consists of brainstorming followed by planning, the teacher can inquire, distribute thoughts, and direct the learners' plans.

According to Bloom's traditional taxonomy, writing could be listed on the top of the taxonomy before the last one which is based on synthesis. Even sometime, writing could be on the top of Bloom's taxonomy which requires analysis that demands the most of one's own thinking. Schultz' (1991) states mapping is one of the most fundamental tools for enhancing organizational, logical and analytic thinking for a dynamic writing. Besides, it includes a complicated use of both grammar and vocabulary which implies that the cognitive

process is involved. It also encourages language acquisition itself and as Avery, Baker and Gross (1996) emphasizes that mapping helps further the intellectual personal growth of the learner. Mapping, especially Concept Mapping (CM), is a pre-writing technique which combines the verbal and the visual abilities of the learners. It takes place after brainstorming. This technique which takes places in the planning phase increases the flow of ideas and strengthens writers' essays. It is easy to use at any grade / ability level. It is completely an effective new tool for both teachers and learners to use. CM is an effective method that aids students to organize their thinking. This graphic scheme-mapping is not only visual but it is also verbal and therefore has all the benefits of those two symbolic modes, the presentational and the discursive (Buckley & Boyle, 1981). CMs were developed in 1972 in the course of Novak's research program at Cornell where he and Musonda wanted to follow and comprehend the changes in children's knowledge of science (Novak & Musonda, 1991& Novak, 1990). The program was based on the learning psychology of David Ausubel (1963). The core principle in Ausubel's cognitive psychology is that learning happens by the assimilation of new concepts and propositions into present concepts and propositions structure seized by the learner. It is referred to as the individual's cognitive structure.

Out of the need to find a better method to represent children's conceptual understanding appeared the idea of representing children's knowledge in the shape of a CM. Therefore a new instrument appeared not only to be used in research, but also to be used in other fields (Novak & Cañas, 2008). Concept Maps are created to represent non-verbal meaningful associations among concepts in the shape of propositions (Novak & Gowin, 1984). As Novak and Cañas (2006) point out propositions are statements about some object or event in the world, either naturally happening or built. Propositions include two or more concepts joined using linking words or phrases to form a meaningful statement. The propositions are the factor that makes CMs different from other similar graphic organizers such as mind maps. A CM is based on the assumption that the main principle of education is to empower learners. Moreover, learners have to be responsible for their learning and creating their own understanding of the world

around them. CMs are knowledge representation devices. They should be read from the top to the bottom ensuing from the "higher order" more general concepts at the top to "the lower order" more specific concepts at the bottom.

CMs have cross links that illustrate associations between ideas at different levels of hierarchy (Novak & Cañas, 2006). Buckley and Boyle (1981) argue that in mapping, the mnemonic power of the visual is strengthened by the verbal naming to label each classification. Novak and Cañas (2006) point out that the label is the name that activates the mind to remember all the features included in the classification. These maps are hierarchical nets consist of concept terms (nodes) and lines that link pairs of nodes. The linking lines are labeled with clarifications of the relationship between node pairs. CMs offer a window into learners' minds. In fact, they reflect students' knowledge schema. As an instructional instrument, CMs support students to explicitly arrange and reveal their existing account of knowledge (Novak, 2010).

Statement of the Problem

Despite the fact that writing is one of the four language skills that students must learn, it has long been the most marginalized skill. Writing has been regarded either not essential enough, compared with speaking, to be worth of any exceptional treatment or only too difficult to teach (Deqi, 2005). Mourtaga (2010) states that Palestinian English language learners are weak writers. He argues that English Language teachers misunderstand the writing process and that the Palestinian English learner lack the linguistic competence in general, and practice of writing in particular. He states that many English instructors and supervisors in Gaza still use traditional strategies based on rote instruction and drilling since they do not get fully the essence of the writing process. He points out that most studies concerning the English writing of Arab learners attribute students' weakness in writing to insufficient knowledge in grammar and native language interference. Unfortunately, these studies neglected many significant reasons behind Arab students' weakness in writing.

Actually, teaching writing is hard and often frustrating. For decades, teachers have assigned writing, graded it, and watched pages covered in red ink stuffed into the backs of notebooks, never to be read again. Many teachers will admit to being uncomfortable teaching writing in the first place: while early grades teacher education programs spend hours on teaching reading, they spend far less time on teaching writing and secondary teachers may have no preparation for this work at all. Students too, can easily grow frustrated as they are asked to write more and are assessed more thoroughly on them (Bowen & Cali, 2003).

Moreover, after many years of foreign language instruction, one would expect to find efficient ways for teaching the skill. Unluckily, examining and analyzing writing tasks and exams do not sustain such expectation. Many students with several years of foreign language instruction are still unable to express themselves in an obvious, well-organized, and understandable manner in writing (Pishgadam & Ghanizadeh, 2006). The researcher has noticed that students in high schools have poor writing skills. Also, they were not performing on their grade level in regards to the writing components. Besides, students are mostly desperate and unmotivated to write. This is, in fact, normal since difficulties in writing can be like all learning problems, destructive to a child's education and self-esteem (Bardos & Maybury, 2012). What complicates the problem, too, is the lack of the teachers' knowledge about the useful techniques which help students overcome their weakness. Bejarano et al (Cited in Rao, 2007) draws our attention to the fact that teachers are embarrassed by the complaint of their students about their inability to write because of their (the students'') lack of the linguistic and cognitive strategies. Shin (2003) points out that "many prospective teachers lack confidence in their own writing, they often avoid teaching writing skills, because they do not feel comfortable with writing" (p, 3).

Actually, English teachers never stop complaining about their students' inability to write a short well- organized paragraph. The sad part of my story of teaching writing composition in our public schools is the stereotypical perception of teachers about students as becoming hopeless cases as it is put in some comments of teachers. In a study conducted by Lee (2008), a teacher believes that

students do not and cannot learn from their mistakes. Teachers keep repeating how important it is to use the past tense in story writing, but students keep making the same mistakes. As for another more pessimistic teacher in the same study done by Lee, he argues that weaker students always return to the first square and repeat their mistakes again and again. Consequently, some teachers, as noticed by the researcher, fall in the trap of dictating the composition to students and tell them to memorize it for the writing test.

This happens because our teachers and students are used to rote learning in which low levels of knowledge are encouraged and students are only passive learners. Writing instruction has come a long way. It has evolved from a rote traditional method with an emphasis on writing connections. Students learn best when they are connected with the course material and actively participate in the learning process. Yet, the traditional teaching models have placed students as passive receptors to which teachers transfer concepts and information (Using Instruction at FSU Handbook, 2011). The researcher believes in the importance of changing the way we teach to change the role of the students and make it more active. Active learning move the focus from the teacher delivery of course content to the student active interaction with the material.

Learning to write is very challenging particularly for those writing in a second or a foreign language as they do not know enough about how to create ideas for writing. As effective writing is considered to be a major problem for EFL students, this study is considered an effort to investigate whether or not the implementation of CMs in teaching writing composition will have positive effects on the Female Eleventh Graders' achievement as well as their perceptions towards learning writing composition by using concept mapping.

Research Questions

The research questions that guided this study were the following:

1. Are there any significant differences between the essays that students write when taught writing using the Concept Mapping strategy and the essays they write when taught writing using the traditional way?

2. Does Concept Mapping have any effect on students' ability to recall learned and acquired vocabulary as a result of teaching essay writing using this strategy?

3. Does teaching essay writing using the Concept Mapping strategy improve students 'ability to recall significant ideas necessary to write acceptable essays?

4. Does teaching students essay writing using the Concept Mapping strategy have any effects on improving students ability to write grammatically correct sentences?

5. Does teaching students essay writing using the Concept Mapping strategy have any effect on improving students' ability using the punctuation marks?

6. What is the effect of using the Concept Mapping strategy in teaching essay writing on students' perceptions of learning writing as a result of using this strategy?

7. Does Concept Mapping strategy have an effect on the participants' writing performance when writing tasks are conditioned?

The Purpose of the Study

The purpose of the present study is dual. The first one is to find out if there is a difference in the achievement of the students who learn essay writing using the Concept Mapping strategy and those who learn writing in the traditional way. The other is to investigate the effect of using the Concept Mapping strategy in teaching writing on students' perceptions of learning writing using the aforementioned strategy.

Significance of the study

The importance of this study is embedded in its focus on using CMs in teaching writing composition. Most of the previous studies were concerned with the effect of using CMs or other graphic organizers in general in teaching reading comprehension or vocabulary. Few researches were conducted to see the CMs 'effect on teaching writing. They were mostly studies examining writing summaries. Thus reading is a necessary construct but with a confounding effect at the same time for students who have difficulty in comprehending texts. Extra research is needed to examine the effects of CMs as a prewriting strategy when reading comprehension is not necessary to produce a writing quality. To the best of the researcher' knowledge, this study is unique since nobody in this region has tried to investigate the effect of using CMs on teaching writing. The study is special since it tries to study whether or not CM would be a helpful technique in creating confident and promising writers in Palestinian public schools. In fact, the reason behind choosing eleventh graders as the population for this study is also significant and indicating. No wonder that everybody assumes that by reaching this level, eleventh grade students should be able to write well- organized and impressive essays. Surprisingly, this is not the case. Besides, students of this age are able to evaluate the usefulness of the strategy used to develop their abilities and to have such awareness of the development in their capabilities as a result of using the new strategy. Consequently, this study is an attempt to change the status

quo of the writing ability of those students who are looking forward to seeing some hope of change in the horizon they are trying to reach.

Definition of Terms

Writing Composition: "Using and Producing Language on Paper to communicate something to the world, to a reader, to a public, or for self-expression….. the last step of a process whose outcome is the finished product" (Antonainzzi, 2005). Writing composition is writing the short essays required in the eleventh grade's English Textbooks or in the teacher's writing exams that replicates the ones required in the units specified for the study. Compositions and essays are used interchangeably throughout the thesis. Each term refers to either the expository or the argumentative writing of a student.

Concept Mapping: Novak and Cañas (2008) define Concept Maps as graphical tools for organizing and representing knowledge. They include concepts, usually enclosed in circles or boxes of some type, and relationships between concepts or propositions, indicated by a connecting line between two concepts. Words on the line specify the relationship between the two concepts. Concept Mapping will be used as a helpful pre-writing planning tool for teaching writing composition.

Students' achievement in writing is their scores which are assigned according to a specific rubric.

Strategy: It is defined as a series of activities to reduce the amount of information held in working memory during composition and to maximize the efficiency of memory (Cited in Shin, 2008).

Propositions: They are two or more words linked to form a statement about an event, object, or idea. Propositions can be valid or invalid. In a concept map, propositions are the basic semantic units (Novak & Gowin, 1984).

The Writing Process: It involves four main stages: prewriting, drafting, revising, and publishing. These stages can be noticed throughout the grades at different levels of difficulty. The first stage is the prewriting stage of the process. This is where the author decides on the topic which then guides them to the probable sequence of events and/or connected thoughts on the topic. This "thinking" stage aids the author to bring the details that sustain the topic. It also makes the author evaluate the chain of events that will happen within the writing (Meyer, 1995).

Schema: Schema is a psychological term widely used in interpreting people's understanding of the world. A schema is a packet of knowledge containing both data and information about the interconnections among the data (Harrel, 2008).

Chapter Two

Theoretical Framework

This chapter presents the theories underlying the use of CMs. It focuses on cognitive theories of CMs to facilitate foreign language learning in a school setting. Some writing theories that provide explanatory value for understanding the investigation of CMs as a prewriting technique are presented, as well. The connections among these salient sections relevant to the current study are established throughout the chapter. The introductory section presents many issues regarding the writing task performance such as processing theory (Flower & Hayes, 1981).

Cognitivism

The first theory which relates to the human memory is cognitivism. As the literal meaning proposes, cognivitism stresses the cognitive process of learning such as how people recognize, remember and think about the environmental incidents they go through **(**Arni & Outcomes, 2008**).** Whatever goes on in the mind is the central objective to a cognitive study (Staley, 2001). Within cognitive implications, Novak developed a Concept Map (CM) as a tool for representing knowledge. From a cognitive perspective, CMs have been applied in all branches of science as a psychological tool to structure, lead, and transform knowledge. The three features of CMs include hierarchical structures, cross links, and specific examples. By selecting concepts and defining the connections between them, one finds the schema that needs to be developed so as to achieve the goal. Again, to achieve individual meaning making, cognitive theorists emphasize the need for conscious thinking. As for cognitive psychology, its chief principle is how people think, understand and learn, and how their comprehension of the world is reflected in their behavior (Arni & Outcomes, 2008).

The Information Processing Theory

Memory is crucial for learning and how information is learned determines how it is stored and retrieved from memory. Thus, cognitive theorists stress the need for introducing material in a way learners will be able to organize and connect it to what they already know and retrieve it in a meaningful manner. Many propose that a person's memory goes through three stages: the sensory registers, Short Term Memory (STM) and Long- Term Memory (LTM). The second memory according to Arni & Outcomes (2008) is called the conscious working memory and it is only connected to our temporary thoughts. The role of working memory is to do all nonautomatized cognitive processes (Shin, 2008). Novak (1990) points out that in working memory meaning making takes place.

On the other hand, long-term memory keeps these meanings for a lifetime. This kind of memory is believed to be divided into two kinds: the procedural memory and the declarative memory. The former is often named "implicit memory" or "knowing how" while the latter is called "explicit memory" or "knowing that" which is thought to have another subdivision of two parts that are the episodic memory for times and places and the semantic memory for facts as well as concepts learned in school (Arni & Outcomes. 2008). The writer's long term memory includes three related knowledge fields. Firstly, is the common text topic (field- knowledge). Secondly, there is the communicative act (pragmatic knowledge-knowledge of audience), and finally, linguistic knowledge about definite text plans (Alamargot & Chanquoy, 2001).

Constructivism

Another theory that has long served as a psychological basis for CMs is constructivism. Constructivism paved the way for many to make contributions to cognitive psychology and initiated a new revision of the concepts of learning. For constructivism, people are thought to be supplied with ideas and concepts before learning takes place (Goltry, 2011). Constructivism is a means of thinking about

knowing. It supports the belief in the necessity of building models for learning and teaching (Tobin, 1993). It is widely argued to be one of the most effective methods of teaching and learning in schools. Thus, it is important for teachers to know the level of knowledge their students have reached. This will enable students to make meaning of their own while receiving any new information. Consequently, since teachers should be followers of educational reform, they should also be aware of the policies and practices of constructivism so as to apply constructivist teaching in classrooms (Katherine & Cody, 2009).

In this context, constructivist teaching and learning environments are defined as learning environments where the students are actively engaged cognitively and operatively ("hands on") in reflectively processing information. This information should be presented in a way that encourages the learner to relate new knowledge to prior existing knowledge. This also goes beyond some "traditional" approaches where students sit passively and receive information largely delivered by the teacher. This constructionist teaching approach means that the teacher should use techniques that encourage students' participation individually and collectively in learning. Learners, in cognitive constructivism, as Katherine and Cody (2009) suggest, should individually build ideas from experience through a personal procedure. On the other hand, teachers should communicate concepts and ideas plainly and away from rote learning so as to enable students to build personal bridges of understanding to these ideas and concepts. This, in turn, will keep them away from reciting.

Ausubel (1968) believes that three conditions must exist for meaningful learning to occur: (a) the learner must sense a relationship among the concepts to be learned, (b) the learner must own definite related thoughts to which this new material can be linked, and (c) the learner must actually intend to learn these ideas. Novak and Cañas (2006) argue that students learn definitions for concepts, but they don't acquire meanings for the concepts in many schools. CM can promote the learners meaningful learning process since it assists learners make sense of concepts by relating new concepts with prior existing concepts in their memory and then organizing them hierarchically to shape an integrated, logical

framework of the material learned (Novak, 1990). In addition, CM promotes meaningful learning by aiding the learner process information efficiently through adopting procedures such as positive transfer, dual coding and memory devices. First, concerning positive transfer, teachers may use suitable plans to help in transferring knowledge or in improving learners' learning as the schema theory proposes that teachers trigger and connect former knowledge with new knowledge. Second, regarding dual theory, theorists believe that if teachers use visual learning in addition to verbal learning, students' recall ability will improve. Finally, in addition to the two methods are memory devices such as graphic organizers. They help students to have a better understanding, a better memory (Arni & Outcomes. 2008). Moreover, Schunk (2012) argues that graphic organizers assist teachers to draw their students' attention to the material, increasing their concentration. These organizers will help learners discriminate between important and trivial information (an adaptive process) and so makes their perception meaningful.

Ausubel 's (1963) Assimilation Theory: Meaningful Learning

The idea of graphic organizers stems originally from Ausubel's Advance organizers. Ausubel is a remarkable theorist in cognitive psychology. His theory is based on illustrating school-based learning. He shows how teachers should organize and facilitate learning for their students. Ausubel (1963) believes that knowledge is hierarchically organized. This is due to having new information meaningfully to the limit it could be related to what is previously known. He is after meaningful learning as opposed to rote learning and reception in contrast to discovery learning. Ivie (1998) explains that Ausubel's learning theory is constructed around the concept of subsumption. Yet, in his later writings, Ausubel preferred to use the term assimilation instead. According to Driscoll (1999), Ausubel suggested four procedures by which meaningful learning can take place. First is derivative subsumption through which the new learned information is an example of a concept previously learned. Mintzes and Wandersee (2005) state

that in this process, learners relate the broad concepts they have in their cognitive structure to the particular, less inclusive concepts newly learned.

The second procedure is the correlative subsumption. In this stage, one has to alter or extend the new concept in order to accommodate the new data. This kind of learning is more precious since it enhances the higher- level concept. Thirdly is superordinate learning. This means knowing examples of the concept, but not the concept itself until learners are taught about it. In this process, newer broader and stronger concepts will be placed in a more comprehensive category with existing thoughts which will end in highly branched levels of hierarchy in the learner's framework of knowledge. Finally, combinatorial learning is different from the three levels previously mentioned. This is because it expresses a level by which the new concept is neither below the level of the acquired knowledge nor above it. On the contrary, it is one same level of hierarchy (Driscoll, 1999).

Mintzes, Wandersee and Novak (2005) elaborate by stating that Ausubel developed two more concepts to give explanations about the changes that take place while knowledge is rebuilt throughout meaningful learning. They are "progressive differentiation" and "integrative reconciliation". The former is the step-by-step developing and explaining of concept meanings which occurs while the process of subsumption and superordinate learning takes place. Indeed, it is the reason behind the dividing and branching of central concepts. On the other hand, "integrative reconciliation" is the process of outlining the similarities and/or differences between related concepts. This will, in turn, enable learners to develop cross-connections between related concepts ending in cohesive knowledge that will help learners infer and make possible analogical thinking. Careful study of Ausubel's ideas reveals three important features. The first is "the advance organizer" which helps to personify the new information and show the "big picture" before indulging in the details. Second, for comparing and contrasting new ideas there is the "comparative organizer". Finally, there is the "progressive differentiation" that is used when teaching three connected subjects. By using this organizer, students will be taught the highest main ideas in hierarchy, then, in

order, they would begin to add more ideas. This may involve a spiral method (Driscoll, 1999).

The Schema Theory

How are schemata formed and adjusted? Schemas are propositional webs which embody small pieces of knowledge. Structure is embodied with a course of "slots", each of which matches a characteristic. In the schema or slot for houses, some characteristics could be material such as wood, contents such as rooms and function as a human residence. Schemas are also hierarchical. They are connected to super-ordinate ideas similar to building and subordinate ones, such as the roof (Shunk, 2012). Schemata are formed after a repeated experience with people, objects and events in the world. This helps us to generalize our experiences and extend our expectations in an abstract and generic way. Thus, we become able to fill any missing information, although not everybody will be able to completely fill the gaps correctly. Besides, it is not necessary to have all the information experienced included to one's schema (Driscoll, 1999). Xiao (2008) points out that if students learn schemas, teachers can stimulate this knowledge when they teach a new content that is relevant to this schema. This is why it is called "content Schemata". There is also the" Formal Schemata" which is the background knowledge of rhetorical structure, which contains features connected to the purpose topic of the text.

There are three procedures in relation to the creation of schemata. First, there is the "accretion" where the new data is remembered within the limits of the already present schema without any change. This is very similar to Ausuble's derivative subsumption. Then comes "tuning" in which one has to change in order to accommodate it under the present schema so as to be consistent with the experience (this is similar to Ausubel's correlative subsumption). Finally, there is restructuring, and here one has to generate new schema as tuning is not enough. This is the same as Ausuble's superordinate learning (Driscoll, 1999). According to Ausubel (1963), meaningful learning is the essential non-absolute, non word

for- word- incorporation of new ideas into a learner's structured design of knowledge (cognitive structure). Novak (2002) believes that if knowledge is obtained meaningfully, it will be kept longer and it will ease future learning so as to be used in new problem solving or creative thinking. For meaningful learning to take place, the material itself must have possible meaning (e.g. is not a list of meaningless syllables).

Concept Maps as Graphic Organizers

Teachers, according to Mintzes, Wandersee and Novak (2005) should facilitate learning by using novel meta-cognitive tools such as graphic organizers. If teachers consider the students careful building of graphic organizations in terms of human visualization and perception, they will increase cognitive achievement (Trowbridge,Wandersee & Novak, 1998). A good example of graphic organizers is CMs. According to Novak and Cañas (2006), CMs can suffice as advance organizers, particularly when the more general and broad concepts that are common to the learner come at the top and the more specific and less inclusive concepts and propositions are lower in hierarchy. Novak adopts Ausubel's theories of learning which are based on meaningful learning and the learner's previous knowledge. Novak set forth the psychological foundations for CMs as the source of our first concepts. Macnamara (Cited in Novak & Cañas, 2008) points out that these are acquired by children between the ages of birth to three years, when they recognize regularities in the world around them and begin to identify language labels or symbols for these regularities. After age three, new concept and propositional learning is strongly acquired by language and occurs mainly by a receptive learning process. In this process, new meanings are gained by asking questions and receiving explanations. If props, concrete experience, or" hands on" activities are available in this acquisition, this will ease the ability to see the relationships existing between old and new concepts.

Novak and Cañas (2006) state that the idea of the Novakian CMs stems from Ausubel's Advance organizers which is seen as a "cognitive bridge' between

the learner's already existing knowledge and the new learned data. Based on Ausubel's assimilation theory, Novak developed CMs in relation to the following three factors. First, meaningful learning includes the assimilation of new concepts and propositions into an available cognitive structure, adjusting those structures. Secondly, knowledge is arranged hierarchically and most new learning includes subsumption of concepts and propositions into current hierarchies. Finally, knowledge acquired by rote learning is expected not to be assimilated into an existing propositional framework. A CM portrays hierarchy and relationships among concepts. It commands clarity of meaning and incorporation of central details. The CM structure process needs one to think in multiple ways and to switch back and forth between different levels of abstraction. In trying to recognize the key and connected concepts of a particular topic or sub-topic, one will usually acquire a deeper understanding of the topic and explanation of any prior misconceptions. The CM is a kind of knowledge representation (Stoica, Moraru & Miron, 2011).

CMs are pictographic instruments for arranging and representing knowledge. They, either simple or more complex, consist of concepts, commonly written inside circles or boxes, and relations between concepts are marked by a joint connecting two concepts. Words on the line are connecting words or phrases that indicate the relationship between two concepts (Novak & Cañas, 2008). Concepts according to Novak (2010) are visual frequency in events or objects, or registers of events or objects, shown by a label. He argues that all meaning making starts with objects or events viewed, or records of objects and events. New knowledge is created when using the "thinking elements"' on the left part of the brain. When one succeeds in perceiving a new regularity or a new relationship between previously known regularities and novel regularities in one's view of events, a new concept is created. Since it is administered individually, however, it supplies a lot of information about the subjects' understanding of the concepts and their links, as well as the subjects' thinking processes (Anderson & Huang, 1989). In addition, concepts are preferred to be between ten to fifteen concepts, especially when presenting a new area of study. Novak (2010) also defines

principles as two or more concepts connected to form an account about how something works or seems to be. Kinchin (1998) argues that the CM is a practical technique. It shows what knowledge a student has and how it is ordered in the students' minds. The structure and the links predict the future of learning.

Crane (1998) argues that CMs help their users see their essays as a series of ideas rather than a mere string of words divided by punctuation marks. They also help writers see new connections and novel meanings that they didn't see before drawing their maps. Moreover, it is much easier for teachers to discuss with their students who have a large amount of in-sequential rough notes. These maps will help students see the big image throughout the discussion and not only focus on sentence-level errors. Moreover, Novak and Cañas (2006 & 2008) believe that the hierarchical structure for a specific area of knowledge relies on specific context particular to that knowledge. Therefore, when constructing a CM, it is advisable to define the context and to have a specific question for the learners to search for an answer. This question is called "a focus question". Kinchin (1998) states that CMs depict knowledge to answer the focus question. Novak (1998) points out that the first step in creating a CM is to construct the focus question. He argues that a good and specific question guides students to build a good map that holds key concepts. Antoniazzi (2005) argues that teachers should be setting a good question. This question should also conform to the students 'interests and capacities. It should trigger a definite reaction so as to keep them focused on one area. Moreover, it should be authentic which means it must be related to classroom work, syllables and the real world and enable them to join old knowledge with new.

Cañas et. al. (2003) states that the following step is identifying the most important concepts strongly related to the area of knowledge which are going to be arranged in a hierarchy from the broadest to the least inclusive. According to Lanzing (1997), links in a CM could be drawn in many directions, For example, they could be non-directional, bi-directional or uni- directional. Novak and Gowin (1984) also explain the necessity of having cross-links between concepts. These are indeed drawn so as to help learners observe how a concept in one area of

knowledge represented on the map is joined to a concept in another area displayed on the map. Kinchin (1998) argues that learners should make, locate and relocate the cross-links until the map is refined and a good proposition is formed. He stresses that links shouldn't be valid since invalid links expose the way of thinking that lead learners to a special way of comprehension. Valid links can also be problematic. Valid refers to the true factuality of the term while it may be contextually unacceptable within the central concept.

The definite examples of events or objects help to explain the meaning of a given concept which is normally not embodied in ovals or boxes. This is because they are particular events or objects that do not stand for a concept (Novak, 2010). Novak (1990) believe that CMs help learners produce new meanings because they serve to help learners arrange the knowledge which they put in long-term memory. CMs could serve many functions, such as creating ideas (e.g. brainstorming, etc.), planning a complicated structure (i.e. long text), expressing intricate thoughts, and strengthening learning by means of evaluating understanding and diagnosing comprehension (Lanzing, 1997). The initial point from which the map is built differs in relying on the predicted prior comprehension of the learners, the complexity and newness of the subject to be taught, and the teacher's self-assurance in the subject (Novak, 2002). Cañas et al. (2003) argue that from the review of many studies, there is a suggestion that CM could be especially useful for lower ability students. This is true to some extent because it does encourage the active, analytical, orderly approach to learning that is possibly a more natural part of the higher ability learner's approach to learning.

The Application of Concept Maps in Writing Classes

Aiming to describe the application of CMs inside classrooms, Schultz (1991) summarizes the technique in two stages. First, teachers come to class with a list of words. If not, teachers guide a word- brainstorming. The other stage then follows. While discussing the meanings of these words, students, with the help of their teachers cluster the words. They end together with a meaningful complete

visual map that shows the relations existing among the ideas as well as the words themselves. Novak (2002) gives more emphasis to the role of words and to the power of the linking arrows between concepts so as to form meaningful statements. He points out that CMs meant to represent meaningful connections between concepts in the shape of propositions. Propositions are two or more concept labels joined by words in a semantic unit. Novak and Gowin (1984) define concept maps as schematic tools for representing a group of concept meanings set in a framework of propositions.

Brainstorming, Outlining and Mapping

Brainstorming is a technique which is the starting point for constructing field knowledge by deciding what is known about a subject topic and what new knowledge needs to be explored and arranged to prepare for efficient writing. It allows students to hear and share information and thoughts (New South Wales Department of Education and Training, 2007). Brainstorming can be loud or silent (Buckley & Boyle, 1979). Schultz (1991) assumes that inside classrooms, students are supposed to have finished discussing a text with a complete understanding of it. Avery et al (1997), Cronin et al (1990) and Gauet (2000) support the notion that discussion would be essential since it is based on the assumption that students come to class with a prior knowledge. Thus, it should be activated to relate the existing ideas and words to the new ones. After that, the teacher chooses a particular theme to be discussed. The teacher, then, asks students for their ideas. His/her role, which is here similar to the role of the secretary, is to write these ideas randomly. Nierenberg (2009) argues that no one can deny that this stage bisects the brainstorming stage in many areas. This strategy as Rao (2007) shows is important in improving student's performance in writing. Both Schultz (1991) and Nierenberg (2009) argue that when ideas become weak, students are asked to correct their ideas in an attempt to get something meaningful out of them. Meanwhile, students suggest relations and the teacher draws lines between ides clusters and tries to "map" them. At this point,

all ideas are mapped, and students are asked to try to frame their theoretical generalization. Finally, using the standard outline helps students organize their sensible elements to work on whatever topic they want to write about.

Schultz (1991) examined a second year college level French course. CM was introduced as a pre-writing strategy in which students started by suggesting ideas and creating links between idea clusters. Then, they used a theoretical statement or group essay based on clusters. Schultz reported improvement in students' writing performance, readiness to share in discussion, and satisfaction with their work. Schultz (1991) states the reasons behind mapping being distinguished from the standard outline (i.e. a systematic listing of a concept with its subordinate concepts and with their attribute values) and from the usual brainstorming. He mentions that mapping helps learners to 'see' the ideas in a multidimensional form. This is seen as being very similar to the movement of thought itself. On the other hand, Berkenkotter (1982) argues that outlining is inflexible and strict. It hinders setting aims and refining plans to match them which are supposed to be flexible. He stresses that the act of writing is based on generating ideas that will be transformed into words. These words are tucked away in our long –term memory putting these thoughts in a list. He argues that brainstorming is a good technique to do so. Yet, a better and more powerful way is to put thoughts on paper and make connections among ideas. Once familiarized with the technique, students need to find ways to develop an idea structure, to create ideas, arrange them and represent them vividly in a hierarchical structure that starts from the most inclusive which is super-ordinate into less inclusive, which are the subordinate ideas. If the structure is bare, students need to arrange and fix it till it becomes understood by the reader.

Another reason behind this uniqueness is that mapping enlarges intellectual input without hindering the flow of thoughts with a fixed rigid form. It is worth mentioning that using this technique makes students highly motivated to produce their own ideas and share them with their classmates. Cronin et al (1990) state that the original purpose of CMs is to show the relationship between main ideas and details (e.g. the main idea would be in a larger box than a minor

idea). This happens when the concept with its relation with the ideas gets more hierarchical. Finally, Avery et al. (1997) point out that mapping draws teachers' attention to students' abilities as individuals not in comparison to their peers. Teachers will be able to differentiate between students based on how students will document their learning through producing their own maps. As a result, this will enable teachers to use mapping as a diagnostic tool.

Mapping and Activating Vocabulary

Vocabulary is empowered by use (Brylnidssen, 2000; Duffy, 2009 & Manning, 1998). Brylindssen (2000) states that the descriptiveness, accuracy and quality of a students' own writing will be greatly influenced by the breadth and depth of a student's own vocabulary. Yet, mouthing words does not have the same potential to increase vocabulary. Besides, if students are unable to use their vocabulary, then these words have, possibly, little meaning to them. Thus, if vocabulary is to be effective, it shouldn't be abstract, memorized, unrealistic or boring (Brylindssen, 2000; Laflame, 1997 and Manning, 1998). According to them, vocabulary should be personalized to make students word conscious. This could be achieved by linking the vocabulary learned to students' own experiences, visualization and backgrounds. In order to enable students to transfer vocabulary and so create their own context, their prior knowledge of vocabulary should be activated. Brylnidssen (2000); Cronin et al. (1990); Duffy (2009), Manning (1998); Nienberge (2009) and Vaughan (2003) believe that CM helps students to add new words to their existing schemas by making connections among the learned words about a specific topic.

In addition, Buzan (1974) states that that words used in maps should be key recall words or phrases. A key recall word is one that brings back the same images when it is activated. It is more likely to be a strong noun or verb and on occasion will be encircled by extra key adjectives or adverbs. A creative word is one that is mainly suggestive and image forming but which is far more general than the more directed key recall word. Moreover, Buzan (1974) believes that

every word is multi-ordinate. This simply means that each word is like a small centre on which there are many little hooks. Each hook can connect to other words to give both words in the new pair different meanings.

Direct Instruction and Teacher's Role in Building a Concept Map

Laflamme (1997) emphasizes the need for direct instruction to help students develop their writing abilities and to write in context. He argues that at first writing will be time consuming. Still, time will be recovered as students become independent learners afterwards (Badrova' and Leong, 1998; Laflamme's, 1997; Walker &' Rı´u, 2008). Brynildssen (2000) and Vaughan & Schummn (2010) emphasize the role of the teacher in guiding the discussion for the whole class. When students are busy with a writing task, teachers need to support them with explicit teaching. Teachers need to lead students by clarifying how to achieve specific goals and efficient choices for every writer. They should give a consistent feedback at all stages of writing (New South Wales Department of Education and Training, 2007). Teachers, who are models through their enthusiastic attitudes towards developing vocabulary, should build on students' strength and help them expand their abilities. It is the teachers role to ease their students' independence by helping them become more aware of the writing technique they use as well as to feel positive about it (Rao, 2007, Walker &' Rı´u, 2008).

To help teachers lead their instruction, Novak (1990) stresses the point that all children start their lives as highly meaningful learners. Yet, most, later, move largely towards rote mode learners. According to him, the reason behind this is that most of school instructional practices move children away from meaningful learning and towards rote learning. He believes that students learn to learn in a way that is disempowering them. Novak and Gowin (1984) present the following activities to prepare for meaningful learning by:

1. Have children close their eyes and ask them if they see a picture in their mind when you recite familiar words, e.g. dog, chair, and grass. Use object words at first.

2. Print each word on the board after the children respond. Ask children for more examples.
3. Now continue with "event" words such as raining, skipping, and sewing, and ask children for more examples, writing words on the board.
4. Give the children a few words that are unfamiliar and ask them if they see a picture in their mind. (Scan through a dictionary and find short words that are likely to be unfamiliar to all, such as "concept."
5. Help children recognize that words convey meaning to them when they represent pictures or meanings in their minds.
6. If you have bilingual students in your class, you might introduce a few familiar foreign words to illustrate that different people use different labels for the same meaning.
7. Introduce the word *concept* and explain that concept is the word we use to mean some kind of object or event "picture." Review some of the words on the board and ask if these are all concepts; ask if these all bring a picture to mind.
8. Write words on the board such as, is, are, when, that, then. Ask if these words bring a picture to mind. Children should recognize that those are not concept words; they are linking words we use in language to link concept words together into sentences that have special meaning.
9. Label your examples "linking words" and ask students for additional examples.
10. Construct short sentences with two concepts and a linking word, e.g. sky is blue, chairs are hard, and pencils have lead.
11. Explain to children that most of the words in the dictionary are concept words. (You might have them in circle concept words) duplicated from a child 's dictionary). Written and spoken language (except that of very young children) uses concept words and linking words.
12. Point out that some words are proper nouns. Names of specific people, places, or things are not concepts.
13. Have children construct some short sentences of their own using the concept and linking words on the board and some of their own words if they wish.
14. Have one child read a sentence and ask other children which are the concept words and the linking words.
15. Introduce the children to the idea that reading is learning how to recognize printed labels for concepts and linking words. Ask if it is easier to read words for which they have a concept in their mind. Point to examples presented earlier of the familiar and unfamiliar concepts and to

> words such as when, then, while, and there ask which are easier to read (pp.25-26).

The Writing Process Theory

In the past decade, significant effort has been devoted to understanding the role of working memory in writing. Long term memory can store virtually unlimited amounts of material for many years. But working memory, which temporarily stores information necessary for carrying out tasks, is limited in the amount of material it can hold (a few items) and in the length of time it can hold it (a few seconds). Processing theory is chiefly concerned with the writer's writing process, his or her writing strategies, the complexity of planning or revision processes, and the influence of tasks. Processing theory is generated from the L1 writing model (Flower & Hayes, 1981) and has been applied to second language (L2) writing models (Silva, 1993). A processing theory model (e.g., Flower & Hayes, 1981) provides a theoretical framework for cognitive-oriented empirical research. The original processing model by Flower and Hayes (1981) as one can

See in Figure 1.1 consists of three different parts: task environment, cognitive writing processes, and long-term memory.

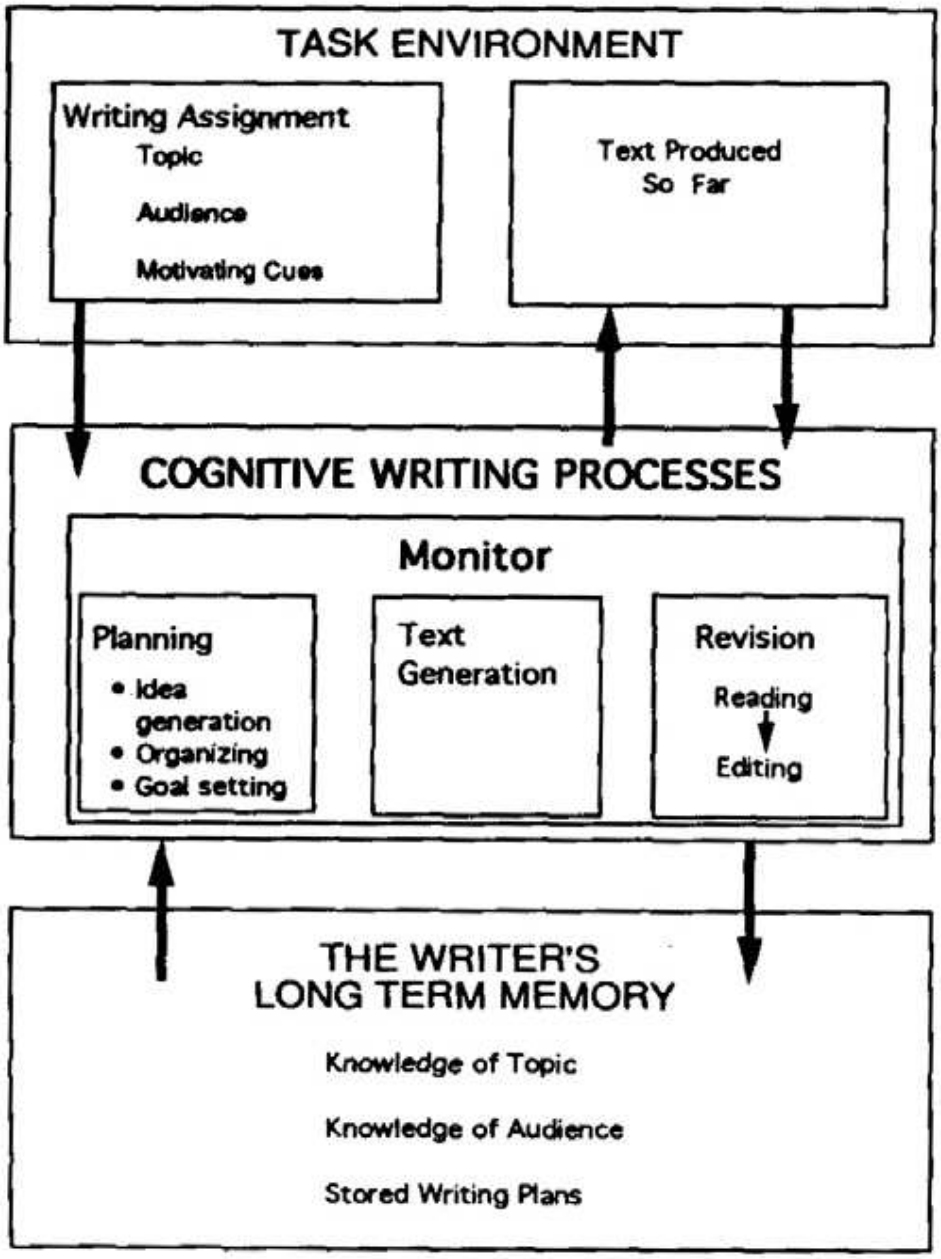


Figure 1.1 The Flower – Hayes Model (1981, p. 370)

The task environment includes elements that affect the writing task. Cognitive writing processes represent the writer's real involvement in a task and are composed of planning, translating, and revision. The third part, the writer's long-term memory, controls knowledge of a topic, knowledge of audience, and a stored writing plan. Overall, the process of writing is the act of composing a hierarchical, goal-directed thinking process with a sense of reason and careful thought for the audience (Flower & Hayes, 1981). One of the limitations of the model is that the relationship among factors seems to be vague so that it is difficult to examine how the task environment and long-term memory reciprocally work together during task completion. Moreover, the writing process model deals chiefly with the cognitive aspects of writing, but fails to take into consideration the social features (Shin, 2008).

Writing is a complicated process. It starts with trying to solve many rhetorical problems. Students may go through challenges in writing for several reasons. These challenges could be in exchanging words, ideas, events and experiences due to a restricted collection of spoken and written English. Other difficulties could be challenges with the "mechanical" aspects of writing such as handwriting, punctuation and spelling (New South Wales Department of Education and Training, 2007 & Isaacson 1997). Difficulties in one or more of these areas can inhibit writing. Children who experience problems with writing or find writing an effort often try to avoid the task and their self esteem may suffer (Bardos & Maybury, 2012 & Isaacson, 1997).

Smith (1982) describes the writing process as a continuing tension between the writer's two roles: the author and the secretary. The author thinks about the message, the organization of ideas, and the language in which to articulate those thoughts. The secretary, on the other hand, has to worry about the mechanical concerns: margins, spelling, punctuation, and handwriting. The author-secretary tension is present throughout the writing process, from planning to editing and writing a final draft. During their struggle, learners plan their own ideas, arrange them and produce a written record taking into consideration spelling and grammar (Graham & Perin, 2007). Learners have to know that

writing a text is a complex task which necessitates implementation of a cluster of mental activities. Writers should undoubtedly specify the nature of the goal and the communicative role of the text. Writers have to evenly control the text subject so as to produce or to denote the most related thoughts that will increasingly constitute the text content. In addition, it is also essential to put thoughts into words, that is, to formulate them right through the writing process. This activity does not imply duplicating some words, but evidently to formulate a set of coherent expressed thoughts (Alamargot & Chanquoy, 2001).

Efficient word choices help readers to visualize and understand the content more clearly. Word selection is a consideration during the drafting phase of the writing process and will be refined during revision. (A Guide to Effective Instruction in Writing, 2005). Students should be aware of the significance of most important words in communicating meaning. Key words hold much more meaning than others and not being able to recognize their meaning may impede a student's understanding of concept. The most important words should be investigated in context in meaningful text. Learners should be motivated to comprehend not just the literal meaning of the words, but the meaning it suggests within the passage (New South Wales Department of Education and Training, 2007). Zinsser (1985) argues that learners can't become real writes until they build up a respect for words and an interest about their shades of meaning that is almost obsessive.

Not only is it necessary to select the suitable words for each idea, but it is also vital to employ very firm syntactic, grammatical and orthographic rules. Muncie (2002) argues that grammar is just as essential a tool of communication as content, and a passage cannot be written cohesively without notice being paid to how meaning is being stated through the grammar. As for syntactic and grammatical rules, some students go through challenges while applying them. They frequently use unclear language with basic, simple sentence models. Learners who depend on the models of their oral language for their writing are inclined to write run on sentences as they are unconscious of the clause structures that are obvious in written language as sentences. (Graham & Perin, 2007).

Besides, it is essential to use some important conventions of writing such as correct punctuation and connection marks in order to translate, in terms of linguistic relations, the semantic associations connecting these thoughts (Alamargot & Chanquoy, 2001).

Generally speaking, “conventions” refer to the mechanics of writing and includes spelling, grammar, punctuation, capitalization and paragraphing. The correct use of conventions makes writing easier for others to read. Students focus on conventions as they proofread their writing during the editing step of the writing process. It can be used as a means of evaluation by learners and instructors (A Guide to Effective Instruction in Writing, 2005). Punctuation, as one of the writing conventions, is the system of building text to help reader’s comprehension. The most frequently used marks are full stops, commas, apostrophe, hyphen, colon, semi-colon and quotation marks. Students need to become skilled in grammar and sentence structure to be able to carefully think about how the English language works, to have a common “meta-language” for conversing about the major attributes of English and to be able to make selections so as to use language more effectively and properly. Conjunctions and connectives, which is another writing mechanic, are words or clusters of words which join words and clauses within a sentence or build associations between sentences and thoughts within a passage (New South Wales Department of Education and Training, 2007).

Moreover, throughout writing, one should pay attention to text cohesion. This term actually refers to the way the passage is held or fastened together. Cohesion is made through grammatical and lexical shapes. Grammatical cohesion comprises reference substitution, ellipsis and conjunction while lexical cohesion includes reiteration and collocation. The goal of teaching writing is to supply students with the information and skills to write well for a range of functions and in a diversity of contexts. Learners may experience annoyance when endeavoring to write due to challenges with spelling, punctuation and handwriting. Students need to be taught how to deal with various writing assignments, how to spot the goals for writing and how to structure texts to gain the intended aims. When

students are occupied with purposeful writing tasks, teachers supply support for them through explicit teaching. Teachers also direct students by explaining how to attain special purposes, discussing the efficiency of writer's choices and giving feedback in all phases of writing (Isaacson, 1997).

Learners also must be taught strategies to employ their knowledge in writing in order to facilitate their independence. Writing effectively starts with a pre-writing technique. Pre- writing is essential to produce quality writing. Research indicates that skilled writers spend significantly more time organizing and planning what they are going to write than writing it (The Writing Process: An Overview, 2007). Prewriting is the process of arranging and recording thoughts. The chief difference between this phase and planning is that it is the creative phase rather than the more critical phase of planning. In planning, the writer considers and rejects ideas. Prewriting activity is less decisive, given to coming up with as much material as possible, some to be integrated, some to be discarded (Trupe, 2001). Indeed, planning provides a fundamental structure to the work. Moreover, it assists the writer in classifying the significant thoughts and key details he/she needs to clarify, illustrate or develop. It also decreases the risk of excluding main arguments and facts. In addition, it lessens the burden on the writer's short memory. Finally, it makes writing easier and the reader's job easier (The University of Hull, 2006). The most important role of the planning process is to start a writing plan from field knowledge retrieved from long term memory (LTM). This plan directs text writing by defining the major aim and sub aims. This plan can be recovered from LTM which is piled up among the writer's knowledge (Alamargot & Chanquoy, 2001).

An effective pre-writing technique is brainstorming, which provides a starting point for building understanding about the topic including subject-related vocabulary (referred to as building field knowledge). Brainstorming can be done with students independently, as team work or as a whole class (New South Wales Department of Education and Training, 2007). Brainstorming in which learners are motivated to produce as many thoughts on the subject matter as possible without judgment or critique, can be used in many learning contexts. The key

word for brainstorming is “generating”. Learners can use this session as a chance to make associations, free relations, and arrange information in ways they may not have been obvious (Instruction at FSU Handbook, 2011). To achieve a successful and efficient brainstorming session, a teaching strategy should be implemented involving graphic organizers, especially the use of the Novakian CMs.

Graphic organizers are illustrative methods for organizing information and thoughts. They can aid the understanding and associations of important concepts and novel knowledge in preparation for writing. The use of graphic organizers is rooted in cognitive processing on how information is accumulated and recovered. This study has revealed to us the significance of serving students to build up an associated body of easy -to- understand- knowledge. Well-connected and complex knowledge structures are important because they allow easier retrieval of formerly learned material and facilitate the understanding and incorporation of novel information (Kinchen, 1998). The process of CM for educational aims can promote the learning of incorporated structural knowledge as contrasted to the memorization of fragmentary, disconnected facts (Cañas et. all 2003). New information is piled up in long- term memory when processed. The quality of storage depends on the level of processing. Processing fresh material takes place through a mixture of actions such as drawing connections. It is central for teachers to start activities that require learners to process and relate new information. Bulkey and Boyle (1981) argue that as human beings, our sole distinctive aspect is our astonishing inherent gift to translate knowledge symbolically. Symbol building is the definitive human actions as the child looks and distinguishes before it knows how to speak.

If novel knowledge is not structured into some form of arrangement, it is likely to be disjointed and not readily accessible for use. Learners often do not have these knowledge constructions when they are learning novel material so it is essential for teachers to assist learners in arranging novel material. Graphic organizers can assist students to arrange the important components of new learning. This can smooth the progress of retrieval and so help students to have less pressure on the working memory to admit and comprehend novel content

(Anderson, 1989). The map provides insights not only into what ideas the students know but also how they organize and link them. This is important because much of higher order learning derives from an individual's structural knowledge (knowledge organization patterns) (Fisher, Wandersee & Wideman, 2000). Teachers could apply this method along with gradual teaching, thinking aloud and questioning (New South Wales Department of Education and Training, 2007). As students "think aloud in writing", they explain the material for themselves and see what they understand and what they need to make sense of it (Instruction at FSU Handbook, 2011).

As an approach, CMs, show particular promise especially with EFL learners. It is based on student's understanding of concepts by mapping them on paper (Novak & Gowin, 1984 & Miles, 1979). Students can use these maps as helpful strategies to break down the meaning of concepts and create a visual written brainstorming that will structure their compositions. The power of this approach lies in the students being able to construct their own meaning by representing the relationship among concepts on paper. Early concept learning is likely to be context related and highly meaningful. By contrast, much of school learning includes the rote learning of concept definitions or statements of principles. This method lends a hand to learners in preparing field knowledge for writing (New South Wales Department of Education and Training, 2007).

Summary

The theoretical framework for the use of CMs was explicated. The different theories that activated the development of CMs, including cognitive theory, information processing theory and constructivism were presented. Further clarification was provided to give a more complete image between CMs and these theories. The benefits of using CMs are explained and how CMs are created and implemented in the classroom is outlined. Finally, the background information focused on writing process theory and the variables that affect students' writing performance. Stages of the writing process have been explained. Of the writing

process, pre-writing is deemed an important part, which provides the basis for successful writing (Antoniazzi, 2005).

Chapter Three

Literature Review

Concept Maps, which are based on Ausubel's meaningful learning theory, are representations of meaningful associations between concepts in the form of prepositions (Novak & Gowin, 1984). They consist of nodes and labeled linking lines to externalize concepts and knowledge of a learner (Lanzing, 1997). Nodes stand for concepts that serve as units of thought and meaning. Lines specify the relationships between pairs of concepts and the labels on each line explain how two concepts are related (Novak & Gowin, 1984). Novak and his research groups began to study the CM tool to measure the structure and organization of a learner's knowledge. The CM strategy stems from Ausubel's (1963, 1968) Assimilation theory of meaningful learning (Novak and Cañas, 2006).

Although Concept Mapping has been suggested as a prewriting strategy, research in this area is still limited (Sturm & Rankin-Erickson, 2002). Additional research is needed to better understand how this strategy can support students and how its effectiveness varies with different forms of writing (Pishghadam & Ghanizadeh ,2006). While CM was first developed as a way of diagramming science concepts, the technique has been used in a wide variety of other fields. To mention just a few cases among many, Leahy (1989) used CM strategy to help his students understand literature. Several studies reported the role of CM in enhancing comprehension (among them are Kaminski, Lazer and Bean (1993) and Draheim (1983). Strategy training has been applied to language learning skills such as listening (Rost and Ross1991; Thompson and Rubin 1996, both cited in Rao, 2007). However, little has been done on writing and speaking. Besides, research on CM has indicated that the use of CM is not confined to any specific groups of learners. It has been studied with students across a range of grade levels, including elementary (Mancinelli et al., 2004, Meyer, 1995, Sharrock, 2008, Prater and Terry, 1988 & Cassata-Widera, 2008) secondary (Alvermann, 1988 & Kyoko & Hiroko, 2011), and university (Robinson & Kiewra, 1995,

Pishghadam & Ghanizadeh , 2006 & Lee. 2010). Besides, it has been argued that mapping improves students' learning attitudes (Sunseri, 2011, Talebinzehad, 2007). Students of varying abilities can become good concept mappers as well (Zipprich, 1995 & Sturm & Rankin-Erickson, 2002 & Castillo, Mosquera & Palacios, 2008).

Concept Mapping as a Prewriting Strategy

CMs can be implemented as a prewriting technique to ease students thinking on their writing process and in the outcomes for foreign language learning. Schultz (1991) argued that mapping process assists second- language learners to visualize their ideas as multidimensional buildings that resemble the movement of thought itself. The map layout can enlarge the intellectual input, without restraining thinking by the imposition of a rigid format such as a traditional linear outline where learners may feel forced to fill in numerals and letters. Moreover, the mapping process may help beginning student writers to focus and order their thoughts so as to begin to write essays (Buckley and Boyle, 1981). Many empirical studies were conducted to prove the effectiveness of the CM as a prewriting strategy. Lin (2003) examined the effect of CM as a prewriting method on persuasive essay writing performance. In her study, three hundred nineteen eighth-grade students employed the CMs to help them produce ideas despite the fact that the quantity of thoughts in CMs was not significant in influencing students 'writing. The quality of CM content was associated to students' writing performance. Comparing CM strategies, the paper-based CM groups surpassed the computer-based CM groups on persuasive writing.

Concerning the second language learning domain, Ojima (2006) implemented CM as a pre-task planning technique and investigated its potential for developing English as a Second Language (ESL) learners' written production. The researcher analyzed four compositions from each of the learners, written with or without CMs using measures of accuracy, fluency and complexity. The study showed that pre-task planning was linked positively with the overall measures of

the students' written production during in-class compositions, with the exclusion of accuracy. He used holistic measures of global quality, communicative quality, organization, argumentation, linguistic accuracy and linguistic appropriateness. Ojima assumes that CM may assist ESL learners develop their composing but in ways unique to individual experience, motivation, and task conditions. In order to gather such data from the subjects, the study surveyed participants on their perception of the use of CM for their writing process.

CMs can be used as prewriting activities (Avery, Baker, Gross, 1996; Novak and Gowin, 1984). As a prewriting activity, CM promotes students to "map out" their thoughts before writing (Avery, Baker & Gross, 1996). Wan and Omar (2008) conducted a study to investigate the using of CMs to ease writing assignments. A group of Master's level was asked to write a paper. Next, they were asked to build a CM based on their term papers. After that, they were asked to do a reflection about their feelings after using CMs. Results demonstrate that most of the students realized that using CMs assisted them to arrange their ideas and to flow from one paragraph into another. Besides, they recognized that if they did the CM before undertaking writing this paper, a lot of time would be saved. Analysis of the students' reflection papers revealed that MA students believed that CMs helped them to focus on the topic and in sequencing the flow of their ideas. Besides, it facilitates writing and helps in planning. Moreover, they see it as a visual representation of what is going to be written and so it should be constructed prior to writing. Further, they discovered that CMs help in understanding what need to be written and that they were be able to see what is lacking in their papers. From their replies, there appear to be a universal agreement that CMs are helpful tools for communicating ideas either in formulating or organizing writing, evaluating or summarizing

Pishghadam and Ghanizadeh (2006) conducted a study to investigate the effect of CMs as a prewriting activity on English as a foreign language learners' ability. The participants were twenty female students at the upper intermediate level. Ten were trained to use CMs during prewriting stage. The results of the pretests and posttests show that CMs develop the students' writing ability. The

scores as well as the interviews indicate a quality generating, arranging and linking thoughts. The findings suggest that as well that CMs are efficient for both affective and cognitive developments. In addition, Negari's (2011) study aimed at examining the effect of CM technique on EFL learners' writing performance. To this end, sixty Iranian students at the intermediate level of language proficiency took part in the study. The output of the Analysis of Covariance revealed that the instruction of CMs strategy had a positive effect on EFL learners' writing achievements.

Prewriting Strategy Research

Research on the writing process has increased noticeably in recent years (Hillocks, 1986). Of the writing process components, prewriting has a critical role for successful writing (The Writing Process, 2007). Although the focus in writing instruction over the past 40 years has changed from product-centered to process-oriented approaches, the process approaches had not been fully employed in all classrooms by the mid 1980s (Smith, 2000). Furthermore, instruction stressed product analysis, such as correct usage and mechanics rather than the students' own thinking (Smith, 2000 & Haneda and Wells, 2000). Besides, this focus on the process-oriented writing instruction has brought about positive changes in student writing performance (Haneda and Wells, 2000).

Teaching writing in a second or foreign language has passed different trends each one has had benefits and shortcomings. Delqi (2005) argued the writing process came as a result of a reform effort. In his qualitative study, he pointed out that the origin of the writing process laid in the process movement in teaching composition to native English speakers, which started in the early years of the twentieth century. Teachers at that time considered writing classes as literature classes in which students were not assisted in composing. Teachers, at that time, claimed that writing should focus on teaching correct grammar and style. Still, traditional writing did not improve students since writing was a very arduous process of exploring thoughts that incorporated several complex skills.

Writing, as Delqi (2005) argues, is highly subjective. Thus, it should go through phases such as pre-writing phase, brainstorming, and quick writing along with other phases. This means that student writers need assistance to reach the last phase so as to successfully complete the writing task.

This assistance could be achieved by adopting a pre-writing technique. Prewriting is believed to help produce quality writing. This could be proved since skilled writers spend considerably more time organizing and planning what they are going to write (The Writing Process, 2007). Graham and Perin (2007) in their study argue that Pre- writing helps students engage in activities meant to aid them produce or arrange their thoughts for their compositions. It may include a visual representation. It also helps writers to arrange pre-writing thoughts. Pre- writing activities have a positive and reasonable effect on the qualities of students' writing, as well. Indeed, the history of using a pre writing technique goes back to the time when new researches appeared to argue against the traditional way in teaching writing. Modern research proposes that a holistic way to teaching and evaluation will give students the instruments and processes they require to develop as writers (National Council of Teachers of English, 2008). Carter, Miller and Penrose' (1998) study shows that the traditional way of teaching focuses on textual aspects at the sentence level and was concerned with the correction of errors as it as a textual product not as an intellectual process.

Moreover, Tümen and Taspinar (2007) in their study point out that today, teachers and teaching strategies have a crucial task in guarantying long-lasting and competent learning. Traditionally, classrooms have been teacher-centered areas where students have been allocated a passive and submissive role. In these student- centered classrooms, successful writing, teaching and evaluation include several different features of writing that have conventionally been taught in separation. These are grammar, syntax, spelling, mechanics, and they even include phases in the writing process. In contrast, educating a lot of these features, including grammar, in context can be very useful (National Council of Teachers of English, 2008). However, does teaching grammar aid learners to write well? Indeed, there was a debate over the researches' results that teaching of

formal grammar such as syntax and parts of speech in a top- down way is unsuccessful. However, the teaching of sentence combining, which is one of many teaching ways is successful as indicated in a study conducted by Andrews et al. (2004).

In addition to this, learners may face challenges in writing for different reasons. Some of these could be problems in planning, writing and revising. Others could be in communicating thoughts, events and experiences due to a narrow storage of both written and spoken English. Further, students may face troubles with "mechanical" features of writing which include punctuation, handwriting and spelling (NSW State Literacy and Numeracy Plan, 2007). In a study conducted by Fregeau (1999), one of her participants who is called Bozena faced challenges in spelling and grammar as well as ideas. Yet, when she writes in her native language, she only cares about ideas. The other participant named Betsy spent days writing a draft after another for the same topic trying to be careful with spelling and trying to modify her ideas for the same topic for days. Betsy's instructor stressed the need for an outline, and so she tried to learn the correct form for outlining. Yet, she found it a waste of time since it blocked her ideas instead of helping her arrange them. As for Bozena, she reported that sequencing is difficult unless the topic chosen needed narration. In the end, the researcher stresses the necessity of adopting a process to teach writing and to be incorporated in the curriculum.

Thus, in this writing process several mechanics of writing composition should be taught explicitly. For long years, for instance, the role of handwriting effectiveness, especially of young children was neglected. It was suggested that the automatic production of letters plays a role in assisting higher order composing process by lessening the load on working memory to handle the complicated tasks of planning, arranging, revising and controlling the production of text (National Council of Teachers of English, 2008). In addition to the efficiency of handwriting, there is the significant role of teaching punctuation. Indeed, there is hierarchy of functional punctuation marks in giving degrees of separation within and between clauses. This hierarchy ranging from the sentence

final such as the period, the question mark and the exclamation mark which is the maximum and to end with none. This way emphasizes the notion that writing is thinking as it supplies the tools for thinking. It implies meaning- based method to punctuate. This explains the individual differences during application. In fact, it is not a matter of applying worded rules instead or to avoid errors rather than to create meaning (Dawkins, 1995).

In addition to teaching Punctuation in writing classes, Delqi (2005) stresses the importance of adopting the" think aloud" process while planning or composing writing. Think aloud is precisely what it means. The process of saying aloud what the student is thinking during composing (New South Wales Department of Education and Training, 2007). Delqi argues that the students who follow this technique attain good results. This surely shed more lights on looking at writing as a process. Similarly, the same thing happened in teaching English writing for learners of English as a Second language (ESL). A lot of focus was given, too, to teaching discrete grammar while tasks which were supposed to engage students in creating meaning or composing itself were neglected. He clarifies how ESL students lack understanding in the organization of patterns of the written speech. Consequently, they needed classes in which chances of training, prearranged structures, and/or models were presented. Neither surface-level correctness nor the mastery of the textual structures in the process of creative writing was accepted. Teachers, instead, should leave traditional methods in writing. On the other hand, they should implement a technique where they intervene to aid their young writers. In the process-oriented instructions, ESL learners lived in actual writing experiences. They were given a lot of time and asked to write about topics they would like to write about and teacher-conferencing was central as well. Finally, Delqi (2005) concludes out of his search that it was proven that ESL writers are similar to native speakers since both showed the need for having composing process.

Devising instructional strategies to assist low-ability writers is based on viewing writing as a process. Hayes and Flower (1981) visualized the central part of this process as producing ideas for writing. Their theory which is based on

cognition, stressed the interconnections between thinking, learning and writing. As writing is a complicated process that includes several cognitive strategies, many researchers have attempted to identify the cognitive components of the writing process. For example, Hayes and Flower (1980) examined a cognitive model of the writing process using a protocol analysis technique. Their cognitive processing theory rests on four key points:

> 1) The process of writing is best understood as a set of distinctive thinking processes which writers orchestrate or organize during the act of composing. 2) These processes have a hierarchal, highly embedded organization in which any given process can be embedded within any other. 3) The act of composing itself is a goal-directed thinking process, guided by the writer's own growing network of goals; and (4.)Writers create their own goals in two key ways: by generating both high level goals and supporting sub-goals which embody the writer's developing sense of purpose, and then, at times, by changing major goals or even establishing entirely new ones based on what has been learned in the act of writing (p. 366).

Prewriting strategies support the writing process for all types of writing (Sturm & Rankin-Erickson, 2002). Planning before writing has been described as the "hero" of the writing process, because it supports writers in setting goals, brainstorming, organizing ideas, and deciding text structure (Flower & Hayes, 1981). The writing process is enhanced by the planning phase, which is the first step of writing performance and a key influential factor on the writing quality. Research indicates that skilled writers spend significantly more time organizing and planning what they are going to write (Hillocks, 1986). Some studies showed the importance of planning in writing. Shin's (2008) study examined the effects of planning on second-language written production with regard to proficiency level, and task type. The subjects were 157 Korean learners of English as a foreign language attending a four-year university in Korea. They were asked to complete two different kinds of writing tasks (Expository writing task and Argumentative writing task) in different planned conditions (Individual Planned Condition and Collaborative Planned Condition) over a two-week period. The

findings of repeated measures for the effect of task type revealed that significant mean differences were only found in the Mechanics section. It is concluded that Korean EFL learners' written performance was affected by planned condition and proficiency, but to only a small degree by the nature of task type.

Studies Using Concept Maps

In order to present the effectiveness of a strategy-based learning on English as a Foreign Language (EFL) students' attainment, Hopkins conducted a research in 2002. His project was implemented and developed to assist low-achieving tenth grade students' essay writing skills. According to examinations administered during the first part of the 2002 school term, many tenth-grade students were not performing on their grade level in regards to the writing process. The overall goal was to have students be able to successfully write and comprehend the elements of the five-paragraph English essay. The objective of the project was for students to successfully write and understand with 70% accuracy in the areas of prewriting, drafting, revising, and finalization of essay writing, as measured by teacher-made pre/post tests. Students were presented with a series of 18 interventions designed by the writer for increasing basic skills in composing and writing essays on various topics. Methods for improvement included instruction in the various stages of the writing process such as prewriting, drafting, revision, proofing, and publishing of five-part essays. Additionally, graphic organizers for clustering, Venn diagrams, comparison-contrast charts, revision charts, peer editing and scoring rubrics were used to reach objectives. All students either met or exceeded the intended objectives. Eight students attained growth at the 70% level.

Regarding strategy-based instruction, CM is agreed to be one of the best strategies employed in educational settings. To sustain the foundation for implementing CM strategy in language classes, some previous research and studies are presented. In a study conducted by Talebinezhad (2009) to investigate the effectiveness of CM as a learning strategy on students of English as a Foreign

Language (EFL), self regulation was examined. Six university learners joined the study. They were at the intermediate level in the English proficiency. They were studying either Literature or Translation. The tool used to collect data of the students' self regulation was the Motivated Strategies for Learning Questionnaire. The results revealed that students got higher self- regulation in writing tasks as a result of the explicit explanation of the CM strategy. Students made the most of their learning by using CM in their essay writing. Thus, they thought more independently and felt more responsible for their own learning. Since CM is easily taken on by learners, teachers may motivate their students self regulations in writing by acquainting them with the CM method. One more clarification for the positive results may be that the building of CMs may have helped students to build more complex cognitive structures in relation to information which was fundamental for writing. Indeed, the advantages of CM might expand beyond attained achievements to some variables such as self- regulations which is an achievement- related variable.

Another study conducted by Talebinzedah and Negari (2011) on the effect of explicit teaching of CM as a learning strategy. The effect was measured in expository writing on EFL learners' self regulation. It was found that learners gained higher self-regulation in writing tasks as the result of the explicit instruction of the CM strategy. Similarly, Charlute and Debacker (2003) investigated the effectiveness of CM as a learning strategy with students in English as a Second Language (ESL). Variables of interest were students-achievement when learning from English language text, students- reported use of self-regulation strategies (self-monitoring and knowledge acquisition strategies), and students- self-efficacy for learning from English-language text. The findings showed a statistically significant interaction of time, method of instruction, and level of English proficiency for self-monitoring, self-efficacy, and achievement. For all four outcome variables, the CM group showed significantly greater gains from pre-test to post-test than the individual study group.

CMs effectiveness is also apparent in children learning as well. Cassata-Widera (2008) conducted a qualitative study by analyzing some conversations in

teacher-guided CM activities in a single kindergarten classroom over eight weeks. The study explored the ways in which CM enhances three main aspects of developing literacy. First, expository language genres can be used to attain or offer de-contextualized information. Secondly, relationship exists between the parts of printed or symbolic representation and words in a spoken proposition. Finally, creating text is an innately social process, with the aims of sharing one's thinking with others. Results show that CM makes expository language explicit to young children through the arrangement and summative representation of reasonable propositions. CM permits for interchanging understanding of experiences, including novel ways of representing and arranging knowledge apart from the instant context, and new linguistic shapes to convey and talk about concepts. Besides, the physical, componential nature of CM makes the task a natural tool for rising children's awareness of individual words within sentences. Finally, CM supplies a chance for children who are not yet ready to plan, generate, and check their own literary products. In this mode, CM operates as a "precursor" to tasks of written expression.

Moreover, Castillo, Mosquera and Palacios (2008) argue that CMs may also support hearing- impaired children to achieve better reading comprehension skills. The study involved only one deaf child, a 13-year-old girl with profound hearing loss in a Panamanian School. The researchers argue that the structure of CMs may ease reading comprehension because sequences of thoughts, and relationships among them, are presented in a graphic format more accessible to deaf students. In this exploratory study, comprehension of an ordinary reading passage was compared with comprehension with its transcription to a CM format, both with and without illustrations. The results suggested that the CM format led to a greater understanding of the reading passage, as evidenced by the answers of the subject to the questions posed by the researchers, as well as the questions posed by the subject herself and her comments about the topic itself. The CM format also awakened and maintained the deaf student's interest more than the ordinary text format.

To examine the effectiveness of CMs in language classrooms, Saadati (2011) stresses the need to use fill-in-the-map and construct a map as a pre- task planning. He used these tools to teach Iranian male students aged between 12 to 16 years old the use of tense in oral production. The researcher believes that this technique will make the use of tenses meaningful for learners and help them to organize and improve their knowledge in this area. Results suggested that CM as a form of pre- task is beneficial in allowing learners to make gains in use of tense in oral accuracy. According to the researcher's beliefs, this is because CM enhances meaningful learning. Another explanation might be that the aim of CM is the production of a visual design. Visuals (diagrams, graphs, maps, etc.) can play a significant role in learning. In addition, Abu Nada (2008) conducted a study to examine the effect of CMs on achieving English grammar on ninth grade male students in Gaza Governorate. The findings indicated that there are statistically significant differences in the ninth grade students' achievement of English grammar due to the method in favor of CMs strategy

Reading, Writing and Concept Mapping

The relationship between reading and writing is an especially important one affecting student literacy (Langer & Flihan, 2000). In reviewing the literature related to reading and writing, Novak (2002) noted that the interconnections between reading and writing have vital implications for classroom instruction. First, both reading and writing are active, meaning-making operations that include written language, with reading being the reception of thoughts from text and writing the expression of thoughts through the construction of written text (Lin, 2003). Second, mapping is one of the most effective instructional strategies to teach and enhance comprehension (Rice, 2009).

Kaminsi, Lazer and Bean (1993) conducted a study. He examined the organizational processes accessed during the composing process by elementary student writers whose teacher had been instructed by the project Read/Inquiring School Initiative at the University of Piltsburgh in helping children develop

organizational structures. Writing samples from students and transcripts of interviews were analyzed. Results indicated that the number of students using higher levels of organization was greater in the experimental group and they had greater awareness of their writing processes. Also, they had an easier time verbalizing about their writing behaviors. Findings suggest that instructional activities had an impact upon the organizational strategies and resultant complexity of compositions produced by writers in the experimental group at all ability levels, but particularly those in the low to average levels. These findings confirm those revealed in the evaluation concerning the effect of organizational techniques on reading comprehension. From their work, the researchers concluded the necessity for flexibility in teaching students methods of arranging for a diversity of composition tasks.

Moreover, Draheim (1983) conducted a training study, consisting of three treatment cycles for a total of nine 50-minute class sessions. He did this to determine the combined effect of Directed Reading-Thinking Activity (DRTA) and conceptual mapping as organizational strategies for college freshmen of low writing ability. Results revealed that the experimental students used significantly more main ideas in their essays than did control students. The experimental group of poor ability writers used slightly fewer subordinate ideas than did control group students. The results suggested that conceptual mapping and DRTA helped students recall thoughts needed during the planning and writing of thesis-support and summary analysis writing tasks.

Oliver (2004) in his study about the effectiveness of CM on students' comprehension of science text structure found that students enjoyed CM and would prefer to read and map rather than just read without mapping. It is due to the CM which is particularly a useful graphic that requires students to express in writing how to link related concepts, understand text structure and improve reading comprehension Robinson and Kiewra (1995) also found that students who used mapping learned more hierarchical and coordinate relations than students who studied outlines or the text alone. They were also more successful in applying that knowledge to essay writing. The researchers conducted their

experiments on three groups: the text only, the outline only, and the mapping groups. The results of the two experiments revealed that when a text is a chapter length and well-ordered and when students are given sufficient time to study and review a set of CMs is more useful than a set of informationally equivalent outlines or the text alone for learning hierarchical relations, coordinate relations and relations in an incorporated manner.

A study investigated the effectiveness of CMs on third- grade students during creative writing were conducted by Mayer (1995). The sample group was instructed to use mapping to write personal narratives writing assignments following the reading of another students' creative writing. The researchers believe that CMs are attributed to be tools that can direct students through the four stages of the writing process: prewriting, drafting, revising, publishing and sharing. The results of the means of the holistic scores showed that the treatment sample did a great improvement than the Control group due to the use of the Concept Mapping strategy.

The Effect of Other Graphic Organizers on EFL Students' Writing

Sunseri's (2011) study aims to examine the effect of Thinking Maps (which are kinds of graphic organizers) on elementary students' expository writing, especially text written by English Language Learners (ELLs) as compared to writing where a Thinking Map (TM) is not used. The researcher wanted to examine how students believe that Thinking Maps affect their writing as well. The participants were 71 students from 4th grade and a 4th/5th grade combination in the South Bay School District. Two of the classes were experimental as the teachers helped students to build and use Thinking Maps in addressing two writing prompts. The other class was the control class because Thinking Maps were not used. The results were that Thinking Maps did not have a statistically significant effect on students' writing. However, English Language learners in the experimental class seemed to grasp a slight benefit in using TMs

compared to the non- ELL students in the control group. Despite the fact that the evidence is weak, students seemed to profit from using Thinking Maps.

Furthermore, the benefits of graphic organizers such as mind mapping in teaching are many. Al Naqbi (2011) in his study tried to show the effectiveness of using mind mapping as a methodology to help eleventh grade students to plan for a writing task under an assessment situation. He evaluated his participants by using qualitative data collection strategies such as interviews, mapping analysis, observation checklist and reflective journals. His results, though the duration of this research was very short (a matter of weeks), show that mapping techniques helped learners to plan and classify their ideas for writing tasks under exam conditions. Moreover, using the mapping technique can aid in expanding students' cognition skills and assist in information recovery in an assessment situation. In his qualitative study of (2002), Novak used CMs to assist meaningful learning with ensuing adjustments of students' knowledge structures when these knowledge structures are limited or faulty in some way. He called them Limited or Inappropriate Propositional Hierarchies (LIPH). Conceptual change or more accurately conceptual reconstruction entails meaningful learning to adjust Limited or Inappropriate Propositional Hierarchies (LIPH). Novak refers to Ausubel 's assimilation theory of cognitive learning. He sees it an appropriate basis for his work since learners should actively seek to combine new knowledge with already existing one.

Also Sharrok (2008) carried out an action research project. The aim of the study was to study the effects of graphic organizers, specifically a CM, on students' writing**,** particularly personal narrative writing prompts given in the classroom. This study examined whether there would be any significant difference in scores between students' writing with the use of graphic organizers and students' writing without the use of graphic organizers. One third-grade class participated in the 6-week study. Findings indicated that students using the graphic organizers showed a development in their creative writing. Besides, Delrose (2011) in his study explored the efficacy of graphic organizers as a tool to ease higher complexity of syntactic and discourse structures in sentence and story

formation. After seven weeks of intervention, the effect of graphic organizers was evaluated by comparing spontaneously written stories to scaffolded stories as well as comparing sentence combining joining skills from pre- to post-test. The findings proposed that graphic organizers can be an effective tool used in the writing process to produce sentences and narratives containing more complicated structure of syntax and discourse.

Effects of Computer-Based Concept Mapping on Prewriting

Computer-based CM is a useful tool for prewriting tasks. In their study examining the effects of CM as a prewriting strategy on the expository writing of middle school students with learning disabilities, Sturm and Rankin-Erickson (2002) found that the students using hand-drawn or computer-generated maps made improvements in several aspects of writing when using either computer-generated or hand-drawn CM as a prewriting strategy. They believe that composing is an advanced academic task within educational settings and parts of the students' difficulties in writing related to difficulties in applying several cognitive strategies. Sturm and Rankin-Erickson further stated that strategy instruction is a teaching approach that assists students in developing strategies for all phases of the writing processes by breaking down writing tasks and making the sub- processes and skills much more explicit.

Moreover, a study conducted by Ahangari & Behzady **(**2012) investigated the effect of explicit teaching of computer-mediated CM. It was conducted on EFL learners' writing skill in general and parts of writing (in terms of content, organization, vocabulary, language use, and mechanics) in particular. The findings indicated that the learners in the experimental group surpassed the learners in the control group in their writing performance. The explicit teaching of computer-mediated CM had a positive effect on the writing skill in general. This training also developed the content, organization, vocabulary, and language usage components except the mechanics of their writing.

Zipprich (1995) carried out a study using a multiple baseline design to investigate the usefulness of the use of pre-structured story web procedures. A prewriting strategy in teaching writing to 13 students with learning disabilities instructed in three groups: planning time, number of thought units and words produced. Types of sentences (fragment, simple sentences, compound sentences, and complex sentences), holistic scores, and mechanics (e.g., spelling, punctuation, and density factor) were used to measure the effectiveness of instruction on the web technique. The results of this study revealed that instruction in the story web technique had a positive effect on the planning and holistic score, but did not make a difference in sentence structure and mechanics of writing. Although, after intervention, students increased their holistic scores and their stories included components of a good story, their writing was still of poor quality. The results suggest that structured instruction using the web technique provide students with a strategy for organization and planning time.

Students' Attitudes towards Strategy-based Learning

One of the roles of teachers is to get rid of their students' worries and create instead confident writers (New South Wales Department of Education and Training, 2007). Talebinzehad in his (2007) study outlined the advantages of using CMs in all students' writings where students themselves enrich and expand the learning process. Besides, it will make them feel positive since mapping helped them handle writing tasks and direct their learning more successfully. Thus this familiarizing with CMs has helped students have self- regulation in their writing. Sunseri (2011) points out those students who were interviewed felt that maps helped them write. The researcher argues that the experimental group who kept consulting the maps has drawn regularly while writing their essays. This, in turn, strengthened the evidence that their scores were better than the control group because of their reliance on this strategy while composing. Moreover, Pishghadam & Ghanizadeh's (2006) study of investigating the influence of CMs

on EFL's writing ability, also, revealed that the use of CMs was not only effective but it was also affective, as well.

In addition, Chularut and DeBacker (2004) examined the effectiveness of CMs as a learning strategy with ESL students. The participants were seventy-nine ESL students. The results showed a significant effect of CM on self-efficacy and achievement of students. For all variables, the CM group showed significantly greater performance from pre-test to posttest than the traditional method group. Attitudes can have a strong effect on whether students engage actively and positively in tasks they find challenging. For low ability writers, a positive change in attitude toward writing, regardless of the reason, could be the first step toward improved writing skills. The whole Experimental Group were positive about the usefulness of CM in promoting writing effectiveness after they used CMs as a pre-writing planning strategy. Talebinezhad and Negari (2001) examined the effect of explicit teaching of CM as a learning strategy in expository writing on EFL learners' self-regulation. They found that the learners gained higher self-regulation in writing task as the result of the explicit instruction of the CM strategy.

As discussed in this chapter, during the past years, a growing amount of research has stressed the emergence of writing as a process. It also focused on the nature of composing and the variables that influence students' writing performance. Of the writing process, prewriting is considered an important element which is the basis for successful writing (New South Wales Department of Education and Training, 2007). In line with cognitive learning theories (i.e. Ausubel, 1963) CM strategy has been developed and widely employed in educational settings. The literature research on CM has presented positive effects of mapping in easing the learning process in language skills (Ojima, 2006 & Schultz, 1991). The current study examined the use of CM as a prewriting strategy in foreign language learning context. The literature review sustains the CM strategy: CMs can help students learn more in the field of knowledge. The researcher has offered a variety of experimental studies relating to CM educational applications for English reading and writing. Electronic CMs are

likely beneficial to students learning. Consequently, the implementation of CM may prove to be a successful learning strategy in the pre-writing process in English Language. However, empirical study on CM tools used in foreign language writing process is limited. This study intends to provide the empirical evidence of the effect of individual CM in foreign language writing process, and suggest practical implication to assist learners be able to comprehend how the CM strategy help in foreign language writing learning.

Chapter Four

Research Method

Methods and Procedures

The present study investigated the effectiveness of using CMs in teaching writing to secondary school students. From the literature reviewed in chapter three, it is obvious that CMs strategies can be applied to school- level students as a prewriting planning strategy to aid foreign language writers' cognitive process in composition. This chapter describes the research design, and procedures for collecting and analyzing data, based on the stated research questions stated in Chapter One. A quantitative data was collected (an analytical rubric, a perception questionnaire, and some of Experimental Group's CMs and essays). Following are description of the measuring instruments, the characteristics of the samples, and procedures followed to collect the data.

Location of the Study

The study purpose was to investigate the effect of CM as a pre-writing planning strategy to assist foreign language students' writing process and development in their English compositions. Specifically, this CM tool was used in English language classes at a public school in Birzeit area in the West Bank. The sample school is a medium-sized secondary school. The target population of the study consists of 11th grade students studying in public schools in Ramallah and Al Bireh District. These included 108 schools having both male and female eleventh grade students. The number of male eleventh grade students was 1598 and the number of female eleventh grade students was 2241. The total number was 3839. These schools were the only ones that had ele1venth grade in the district. The study participants included 56 eleventh grade students. Data collection was conducted for a whole scholastic year 2011-2012.

The researcher's school was chosen for the following reasons. The researcher works as one of its teachers. In fact, the researcher was the teacher of both the control and experimental groups. Moreover, the researcher couldn't leave the school during the day because she had a large teaching load. A random sample consisted of 56 female students who were chosen from eleventh grade students in Al Majida Secondary Girls School in Ramallah and Al-Bireh district. The school didn't have another two sections from the scientific stream available for research. Thus, the scientific class was excluded from the study. The students of the literary stream classes were evenly distributed into A or B on the basis of their English marks from the previous year. Then, the choice of the experimental and the control groups was randomly assigned. Section (A) was the control group and section (B) was the experimental group, each with 28 students. After that, they had their pre-test writing exam to make sure that they were equivalent.

Research Design

The purpose of the study was to examine the effect of CM strategy on the Palestinian eleventh grade students' writing performance. Particularly, the study focused on differences in the effect of individual paper-and-pencil CMs under three conditions: in-class writing tasks, exams and home assignments. In addition, the study looked at the Experimental Group's perceptions of the CM process.

To accomplish the research goal, this study employed a quantitative research method. After a pilot test of training materials and students survey instruments, the researcher conducted a main study, in the first phase, with a quasi-experimental design. This design was appropriate for this study, and according to McMillan (2000), was best suited when subjects were in intact classes. The classic method of assuring comparability is to assign students randomly to classes or take into account existing differences (Hillock, 1986).

The study investigated two groups in seventeen writing sessions. The subjects were randomly assigned into two groups. Then, the Experimental and the

Control Groups have a pre- test of writing. Seventeen compositions per each subject were scored with eight component scales including Thesis Statement, Organization, Vocabulary, Spelling, Grammar Use, Punctuation, Writing Process and Handwriting. Eight subscales and total scores of composition were used in analysis as dependent variables. The Independent Sample T-Test was used to examine the statistical difference between the Control and the Experimental groups. The writing tasks produced by the subjects of both groups were scored by two raters.

In terms of internal validity, the study attempted to supply an instructional conditions equal in the Experimental and control groups except for the direct treatment variable: using the CMs. The researcher set instructional protocols for each writing class. The researcher led and monitored all the training sessions and writing sessions. The subjects of the study had been exposed to the same textbooks and same instructional plan. In terms of essay scoring, the researcher, as well as another experienced English teacher, who taught the pilot study were trained with a scoring rubric. A pilot test of the rating rubric revealed that there was high inter-rater reliability (Cronbach's Alpha .775).

Procedures

Both Experimental and Control groups participated in a pre-test, which used a 40-minute-in-class writing session to generate an essay based on the given writing prompt. Both groups, then, participated in the next 17 writing sessions. Both in the Experimental and the Control groups, the instructor introduced the composition rubric and informed students that their composition would be evaluated based on the rubric. At the end of April, the subjects of the Experimental Group filled in a questionnaire on their perceptions of the individual paper-based CM.

Pre-assessment of Writing

Though this study employed a quasi-experimental equivalent control group design in which the Experiment and the Control groups were randomly assigned, a pre-assessment measure of pre-learned writing skill was used to ensure their equivalence. As a pre-assessment of writing, the subjects wrote an essay based on the writing prompt provided by the researcher. Without any specific instructions on the writing process, the subjects were asked to develop short essays in class, which took approximately 40 minutes. During the pre-test, students were not allowed to discuss their topic with peers. Students were allowed to ask the instructor for the meaning or spelling of any word they wanted to use.

Concept Mapping Training

For the Experimental Group, the CM training involved a presentation of CM techniques, followed by two guided practice sessions. At first, the researcher introduced the general idea of CM technique and the methods for constructing CMs and using maps as a pre-writing planning strategy. The instructor provided the participants with some CMs about the writing components (Hogue, 1996). In the first class, a CM was introduced about "The Components of a Good Essay", in general. Then, each component was taught separately in a separate CM. This way, CMs were presented to the Experimental Group (See Appendix D). Regarding the Control Group, they had the same instruction but without the aid of using CMs. Moreover, the second practice focused on constructing a CM to plan an argumentative essay. The researcher modeled how to transfer ideas from maps to written paragraphs during a whole class exercise. The second practice lasted for two-weeks (See Appendix D).

Writing Sessions

Different writing prompts were used for the main seventeen writing sessions (See Appendix A). The Experimental and the Control Groups were provided with the same writing prompts. As writing instruction, the researcher emphasized the planning process of writing by explaining that the writing process involves multiple tasks such as planning, drafting, and editing. The subjects of both groups were encouraged to spend some time planning their writing with or without CMs. The researcher provided students with handouts of the composition rubric and briefly explained the categories of composition scores based on the rubric. The writing instruction took about 20 minutes. The in-class-writing tasks were the ones that were required in the students' English textbooks (English for Palestine). The types of writing targeted in this study were expository, descriptive and argumentative essays. The stimuli for writing were written prompts (see Appendix A). The writing objective, text structure, themes were defined by the writing prompts. Prompts addressed knowledge students had some prior information about from the reading passages they were taught at the beginning of each unit to minimize student differences in declarative knowledge (Sturm & Rankin-Erickson, 2002).

Instrumentation

Instruction Protocol

An important goal in writing instruction was to help student develop the skills needed to successfully manage the complexities of the writing process. The researcher developed instructional materials and scripts for CM training and writing instruction, which were used with the Experimental group. In the CM training, the researcher showed using an overhead projector a sample CM designed to introduce the general ideas of this tool. After the presentation, the researcher supplied the Experimental Group with two writing in-class assignments

to practice CM. The training material is presented in Appendix (D). Besides, before the writing sessions for both groups, the researcher explained in brief that writing is a recursive process which includes planning, drafting, revising and editing, focusing on the importance of the planning phase. Besides, the researcher provided both groups with an analytical rubric and explained its criteria.

The Analytical Rubric

The assessment of the writing assignments was rubric-referenced since authentic assessment should be criterion-based. The researcher developed an analytic richly defined five point, eight-trait rubric that is believed to improve the reliability and validity of assessment (Mueller, 2011). The reasons behind choosing an analytical rubric were a) to increase consistency in grading, b) to give students a target, c) to allow the raters to provide justification for grades assigned, d) to save time in the grading process and e) to help the raters analyze students' strengths and weaknesses. The descriptions of the likely levels of attainment for each of the criteria or dimensions of performance were explained fully enough to make them useful for judgment. The justification as to why a specific criterion is given a specific score was very important in terms of both the rater (teacher) and the rated (student), as well as for the objectivity of the assessment itself.

The Rubric looks at the main elements of writing and assesses them independently from one another. It is an influential tool that far surpasses the restricted information a single grade or score provides. It offers a regular and honest feedback (Culham, 2003). The rubric was partially taken from Fry, Kress & Lee (2000) as well as Cbrister (2012). The researcher, with the help of the judges and the pilot study teacher, divided some areas to be scored separately. For instance, vocabulary should be separated from spelling to avoid confusion while evaluating. Moreover, "thesis statement" should be separated from "organization and form" since this rubric will assess different kinds of essays. In the description of the area "organization and form" two distinctions were made; one for assessing a paragraph and the other for assessing a whole essay. Also,

“grammar and sentence structure” shouldn’t be assessed with anything else such as “punctuation”.

The final measures cover eight components of writing performance including thesis statement, organization, vocabulary, spelling, grammar use, punctuation, writing process and handwriting. The total mark for each component is further broken down into numerical ranges that correspond to five mastery levels: excellent, good, almost good, needs work and needs very hard work. The scoring criteria address the objectives stated in the writing prompt. The scoring rubric met criterion validity, using detailed scoring that ensures the validity of the assessment. The two forms of reliability in classroom assessment and the rubric development involved two raters. Rater reliability generally refers to the consistency of scores that are assigned by two interdependent raters (inter-rater reliability) and that are assigned by the same rater at different points in time (intra- rater- reliability).

Evidence was gathered to support the inferences drawn from the students’ responses on the test. Objectives were written to ensure content validity because the test clearly defined the achievements that the researcher measured. To increase reliability and avoid any possible subjectivity, it was decided to include two raters in the study. The raters who participated in the study voluntarily were the researcher and the teacher of the pilot study. The raters were experienced high school teachers (who were often assigned to correct compositions in the Tawajehee General Secondary Certificate). The two raters always had brief meetings to discuss the drawn CMs, writing assignments and the analytical rubric. The researcher and the second rater independently rated different kinds of essays using the analytical measure. Raters were trained with sample papers using the scoring method until inter-rater reliabilities between the two raters exceeded a Pearson r correlation of 0.78. Due to the large amount of papers to be corrected, the other teacher (the teacher of the pilot study) sometimes corrected half of the papers and at other times took a sample of the essays and corrected them. After that, the teacher checked with the researcher if the marks were similar to those of the researcher. Opinions were exchanged between the raters, whenever required.

The Writing Tasks

Most of the writing prompts were the ones required in the English textbooks for the eleventh grade students. The rest were related to everyday topics such as schools and Palestinian foods. The seventeen topics included:

(a) an essay about a subject they like or interested in;
(b) an argumentative essay about “Health in Palestine”;
(c) an argumentative essay about “Volunteering”;
(d) an expository essay about “Malaria”;
(e) an informal reply letter;
(f) an argumentative essay about “Education in Palestine”;
(g) a formal business letter
(h) an argumentative essay about ”Globalization”
(i) an argumentative essay about “Human Beings in Groups”;
(j) an argumentative essay about “Road Accidents”;
(k) a descriptive essay about “My School”
(l) a descriptive paragraph related to the learnt novel “Silas Marner”;
(m) a descriptive paragraph related to the learnt novel “Silas Marner”;
(n) a descriptive paragraph related to the learnt novel “Silas Marner”;
(o) an argumentative essay about “Bermuda Triangle”;
(p) a formal letter;
(q) Compare and contrast essay;
(r) A process-descriptive essay.

Specifically, task (a) was used for pre-test in all classes. Tasks (b) and (c) were used in CM training. Moreover, (d), (K) and (Q) were used as writing exams. In addition, (l), (M) and (n) were used as home assignments. Finally, the others were written in-class. The Experimental and the Control groups used the same writing prompts in each session.

Student Survey of the Concept Map Process

After CM sessions, the subjects of the Experimental Group were asked to complete a questionnaire to determine the effect of the CM on their perceptions of using it. The perception questionnaire consisted of 23 statements including; (a) perceptions of the usefulness of the CM strategy and (b) perceptions of the CM activities. Students were asked to indicate their feelings by selecting a numeric choice ranged between 0-100. This scale was from 0 (impossible), (10 20 30) medium, (40 50 60) sure, to completely sure (70 80 90 100). The subjects of the Experimental Group had to show how Concept Mapping helped them perform writing tasks on all the essays that they had to do. Seven judges consisted of two university Ph. D. teachers, four teachers and an English supervisor evaluated the items for validity and clarity.

Data Analysis

This study used a quasi-experimental design. To answer the first, second, third, fourth and fifth questions, an independent sample t-test was used with the total writing scores as well as the sub scores. The total composition score is formed from the sum of eight components scores focusing on the important feature of composition. The eight writing components were equally weighted as follows: thesis statement (5 points), organization and form (5 points), vocabulary and length (5 points), spelling (5 points), grammar (5 points), punctuation (5 points), the writing process (5 points) and handwriting (5 points). With regard to the sixth research question which looked at students' perceptions of their learning of foreign language writing as a result of the influence of using the concept mapping strategy, descriptive statistics of students responses are presented. In fact, 50 (as a mark) was the determiner of the students' perceptions. If the mark was 50 or above perceptions were positive, but if below, perceptions were negative. The items #16, #17 and #18 are written as negative statements. This is to prevent patterns of answering (Coutinho & Junior, 2008). These items were

manually converted into positive statements before analyzing them as follows: O as a score became 100, 10 became 90, 20 became 80, 30 became 70, 40 became 60 and vice versa, the 50 score was not changed. Students' responses were analyzed under three themes: "Areas of Writing Ability", "Writing Process" and "Idea and Organization". Finally, to answer the last question, One Way analysis of Variance (ANOVA) was used. The independent variable was the three writing task conditions, and the dependent variable was the 17 post-test essays scores. To determine whether there was a significant difference between the Control and the Experimental Groups' gain scores under the three writing task conditions, an ANOVA test followed by Post Hoc tests (i.e. LSD method) were conducted.

The Pilot Study

A public school in Ramalah and Al Bireh District was chosen for the pilot study. One of the English teachers at the school was enthusiastic to participate as a volunteer to apply CMs as a prewriting planning technique in teaching writing. The researcher conducted a pilot study for the same whole scholastic year 2011-2012. The pilot study intended to investigate the feasibility of training material and writing prompts. Besides, the researcher administered the student survey to decide instrument reliability. The participants were 39 students in the scientific stream. The students received a training session involving a presentation of a CM technique, followed by two guided practice sessions. After that, the participants started to draw CMs on papers in the pilot study. Then, the students were very motivated to draw their CMs using the computer. Besides, they asked their teacher to teach them writing and literature classes by using this strategy. Then, they began to design their own CMs concerning the novel they were taught in their literature classes and explained the novel using their CMs. Besides, it is worth mentioning that things were totally different with the pilot study participants since they were in the scientific stream. Their teacher didn't interfere at all after giving the instructions and she left them to work by themselves in all writing assignment and they never asked for any help.

The student survey was administered to the 39 participants and the reliability of the instrument was tested. The reliability coefficient of the questionnaire was in excellent range (Cronbach's Alpha .906 and .886). Most students answered that they enjoyed the CM activity. The overall majority in the pilot study reported that the CM strategy was beneficial in learning the writing components. Based on the feedback from the participants in the pilot test, training materials and the questionnaire were refined.

Instrument Validation Procedures

The questionnaire is partially a modified version of the Writing Self-Efficacy Scale used by Pajares, Hartley, and Valiante (2000). Questions from 1-9 of the 23-item writing scale measures individuals 'self-confidence in their writing abilities, including their skill in treating commonly assessed traits of writing: ideas and organization, spelling, essay formatting, punctuation, word choice, grammar and sentence structure (Culham, 2003). Students were instructed to rate their confidence levels on a scale of 0–100. The 0–100 format was chosen over the traditional Likert-type scale because Pajares et al. documented that a scale with a 0–100 format was psychometrically stronger than a 1–10 scale concerning factor structure and internal consistency. A few changes in the wording of some quoted items were made so that they would fit with the study. Questions 11-23 were added by the researcher.

Validity has to do with the faithfulness of a test to its purpose. The consistent application of the scoring rubric is seen as crucial to the validity and meaningful interpretation of scores for performance assessments (Jonsson & Svingby , 2007). To guarantee content validity, students were first taught the writing mechanics through CMs. They were also taught what was meant by modes of writing, especially the argumentative essays through two "Master Maps" (the first two essays). The prompts given to the students were judged to check for their simplicity, clarity and that they were specific. Providing students with questions was meant to control the ideas and their flow so that students

wouldn't be lost at any moment of writing. Yet, questions were not given in real tests. It was felt that interference from the teacher should be limited so as to meet the exam conditions. Also, the students were only to write one paragraph. Thus, questions were not of great importance for them. There were no choices given in the selection of the prompt for each writing assignment. The model answers, having two raters as well as the analytical rubric were meant to reduce the threat of extraneous factors such as the subjectivity of scoring.

Moreover, this descriptive marking scheme which was needed by the evaluator to check the subjects' thinking quality was modified two times. First, it was to assess these sets of assessments responses or criteria (Thesis statement, Topic Sentence, Organization, Vocabulary and Spelling, Grammar as well as Sentence Structure and Punctuation. Yet, the criteria were changed into (Thesis Statement, Organization Length and Form, Vocabulary, Spelling as long as the words related to the topic, Grammar and Sentence Structure, Punctuation, Writing Process and Handwriting. The levels of performance quality ranged from "excellent" which was given 5 points, to "Good" which was given 4, to "Almost" which was given 3 points, to "Needs work" which was given 2 points, to "Needs very hard work" which was ranged from 0 to 1 point. Then, it was recommended that the range for the level "Needs work" be from 1 to 2 and zero for the level "Needs Very Hard Work".

Concept Mapping is believed by the researcher to provide the students with a prewriting technique to become skillful writers. In terms of content validity for the maps drawn, the maps generated by the researcher were examined to check for representation of important concepts and linkages within the knowledge domain. Thus, some of them were sent to Professor Joseph D. Novak, the developer of the Concept Maps, through personal contact, by email. The researcher asked what he thought of these maps. He replied by saying that "your CMs and other items present some of the challenges faced by Palestine are nicely illustrated" (Personal Communication, Novak, 18th Nov, 2011). He also pointed out that

> I have looked over your concept maps and see creativity expressed in them. Literary works lend themselves to this kind of representation, and I see some of this in some of your concept maps (Personal communication, Novak, Nov12th, 2011).

Professor Novak also judged some of the pilot study and the Experimental Group's constructed CMs. He pointed out that he found them interesting. He added that the students' maps look hierarchical, too (Personal communication, 29th July, 2012).

Validation and Reliability for the First Two Master Maps

Every composition was actually a whole package. There was the model answer and there were also the tips for the teacher who was going to apply the writing composition. These tips included the questions to be asked so as to lead the students to the right ideas. There were also the brainstorming sheets as well as the CMs for all of the paragraphs. Everything was judged by seven people. For example, with regard to brainstorming sheets, it was suggested to lessen the number of words used, specifically not to exceed 25 words, or, if not possible, to make a separate brainstorming sheet for each paragraph. Yet, the pilot study showed that was not necessary at all. Students, either of the pilot study or the real study, tended from the beginning to give all the words related to the topic meant to be written about. Every writing assignment took at least two weeks to make sure that it was suitable to be applied on the experimental group, in terms of both the model answer and the CMs for the paragraphs, and for the control group in terms of the model answer alone.

Finally, the teacher of the pilot study as well as three other judges noted that if the propositions in the CMs were numbered, that would make it easier for students and any other readers to follow the flow of thoughts presented in the CMs. Thus, the participants were advised to number their propositions. Ahlberg (2004) pointed out that sometimes it is helpful to be able to read a concept map only in the order that you intend it to be read. It may not always be from top to

bottom, and the order in which propositions are read is significant. Then you may insert to each link a number illustrating the order in relation to which the propositions should be read.

Chapter Five

Results

Introduction

The ultimate goal of the present study was to investigate the effect of the explicit teaching of Concept Mapping (CMs) strategy in writing essays on the eleventh grade students. The effect of CMs as a prewriting technique was assessed using the Independent Sample T-Test. The results indicated statistically significant effect of CMs on the eleventh grade students' writing ability. The measures used were students' rubric scores given to them by the assessment of two teachers. The means of these scores were calculated. Mean differences for the various data are discussed along with statistical tests which were performed using the rubric scores. Thus, this part will tend to answer the first six questions of the research questions. The second section will present the results of the students' perceptions after using the CM technique. Finally, to answer the final research question, data collected from the post-test written essays were analyzed using One-way Analysis of Variance (ANOVA).

Assessment of Students Writing Tasks

To assess the students' writing, an analytical rubric was used that measures the "thesis Statement", "organization and form", "vocabulary and length", "spelling", "grammar and sentence structure", punctuation", "writing process" and "handwriting" which were weighted equally. Two teachers assessed students writing. The results of these assessments were seventeen scores for each student. The Control Group students were assessed in the same way. The level of both the Experimental and the Control Groups was the literary eleventh grade.

Table (1)

The Pre- test Writing Mean Scores for the Control and the Experimental Groups and the Independent Sample T-Test

	Class						Sig. (2-tailed)
	Control Group			Experimental Group			
	N		Mean	N		Mean	
	Valid	Missing		Valid	Missing		
Thesis	28	0	.00	28	0	.00	
Organization	28	0	.00	28	0	.00	
Vocabulary	28	0	.96	28	0	1.04	1.000.
Spelling	28	0	1.11	28	0	1.18	.502
Grammar	28	0	1.11	28	0	1.04	.859
Punctuation	28	0	1.03	28	0	1.04	.053
Writing Process	28	0	.00	28	0	.00	
Hand Writing	28	0	2.18	28	0	2.46	.630
Total	28	0	6.36	28	0	6.75	.959

Pre-test Performance

After administering the writing pre-test, the researcher compared the means of the rubric scores for the Control and the Experimental Groups. The pre-test prompt asked the students to write an essay about any topic they like or interested in. A copy of this prompt can be found in appendix A. No teaching strategy was yet applied before or during this prompt. As shown from Table (1), both the Control and the Experimental Groups lack knowledge in many areas in writing which reflects low writing ability. As Table (1) represents (p=.959), there is no difference between the pre-test scores of the control and the experimental groups. The mean scores for the pretest showed approximately the homogeneity of the two groups.

Concept Maps and their Effect on Students' Writing

To detail the treatment effects on specific features of students' writing, the Independent Sample T-Test with the type of group as the variable was also performed on the four component scales (Vocabulary, Organization, Grammar Use and Punctuation). Means and standard deviations for the four subscales of writing are presented in Tables (2, 3, 4 & 5). The mean scores demonstrated that the experimental Group outperformed the Control Group on these four subscale areas. The following is the results of the study pertaining to each one of the first five questions.

Research Question #One : Are there any significant differences between the essays that students write when taught writing using the Concept Mapping strategy and the essays they write when taught writing using the traditional way?

Table (2)
The Mean-Scores and the T-Test Results for the 17 Post Tests

Group	N	Mean	T	Df	Std. Deviation	Sig. (2-tailed)
Control	28	14.55	-10.622	54	4.74431	.000
Experimental	28	27.10			4.07163	

As table (2) shows, the mean scores of the post-tests for the Control and Experimental groups were 14.87 and 27.69, respectively. To determine whether there was a significant difference between post-test scores for both the Control and the Experimental Groups, the researcher used the Independent Sample T-Test. As it is evident from Table (2), a significant difference was observed between the post-test scores of the Control and the Experimental Groups (i.e. $p=.000< .05$). The results indicate that the strategy training of the Experimental Group was effective and has improved the writing ability of the language learners.

Research Question #Two: Does Concept Mapping have any effect on students' ability to recall learned and acquired vocabulary as a result of teaching essay writing using this strategy?

Table (3)

The T-Test and the Mean Post- test Scores Regarding Vocabulary

	Group	N	Mean	T	df	Std. Deviation	Sig. (2-tailed)
Vocabulary and Length	Control	28	2.01	-10.375	54	.65944	.000
	Experimental	28	3.70			.55735	

Table (3) shows that the mean scores of the post-test regarding Vocabulary for the Control and the Experimental groups were 2.01 and 3.70, respectively. According to the statistical analysis in the above table there is a difference between the post-test scores, which indicates that the difference is notable in the Experimental Group. To assure the differences in both groups, the researcher runs the Independent Sample T- Test. Table (3) displays that the difference is statistically meaningful (p=.000<,05). Thus, the Independent Sample T-Test results indicated that the effect of teaching writing using the CM strategy pertaining to students' ability to recall learned and acquired "Vocabulary" was significantly different between the two groups.

Research Question #Three: Does teaching essay writing using the Concept Mapping strategy improve students 'ability to recall significant ideas necessary to write acceptable essays?

Table (4)

The T-Test and the Mean Post- test Scores Regarding Organization and Form

	Group	N	Mean	Std. Deviation	T	df	Sig. (2-tailed)
Organization and Form	Control	28	1.92	.67673	-9.924	54	.000
	Experimental	28	3.61	.59822			

According to Table (4), the means for the post-test written essays for the Control and the Experimental groups regarding organization and form were1.92 and 3.6, respectively. A close look at the mean scores of the Control and the Experimental groups during the post-test reveals that the mean score of the Experimental Group exceeds the mean score of the Control Group. In order to see whether the difference between the groups is meaningful or not, the researcher utilized the Independent Sample T- Test. Table (4) reveals that differences between the post-test scores of the Control and the Experimental groups ($p=.000<.05$) are significant.

Research Question #Four: Does teaching students essay writing using the Concept Mapping strategy have any effects on improving students' ability to write grammatically correct sentences?

Table (5)

The T-Test and the Post- test Mean Scores Regarding Grammar

	Group	N	Mean	Std. Deviation	t	Df	Sig. (2-tailed)
Grammar	Control	28	1.67	.57553	-11.196	54	.000
	Experimental	28	3.30	.51489			

Table (5) shows that the means of the post-test written essays regarding the grammar component for the Control and Experimental groups are 1.67 and

3.30 , respectively. Differences in the mean scores indicate that the CM strategy was effective concerning teaching grammar. The effect of the explicit teaching of the CM strategy on the eleventh grade learners' writing regarding grammar was also assessed by conducting an Independent Sample T-Test. According to Table (5) there is a significant difference between the two groups regarding grammar (p=.000<.05).

Research Question #Five: Does teaching students essay writing using the Concept Mapping strategy have any effect on improving students' ability using the punctuation marks

Table (6)

The T-Test and the Post- test Mean Scores Regarding Punctuation

	Group	N	Mean	Std. Deviation	T	df	Sig. (2-tailed)
Punctuation	Control	28	1.52	.57728	-12.763	54	.000
	Experimental	28	3.41	.53227			

As Table (6) shows the difference between the post-test scores regarding students ability to use punctuation marks is significant (p=.000), which proves the effectiveness of CM strategy in teaching writing. Further, the T-Test shows that a significant difference was observed between the post-test scores of the Control and Experimental groups on the students' ability to use "Punctuation". This finding reinforces the effectiveness of such a strategy in teaching English composition to secondary students.

Research Question #Six: what is the effect of using the Concept Mapping strategy in teaching essay writing on students' perceptions of learning writing?

The sixth research question investigated the participant' perceptions of CM, as an instructional strategy, by the means of a Perceived Usefulness of Concept Mapping Questionnaire that consisted of 23 statements. It includes 11 items on students' perceptions of the usefulness of the CM strategy and 12 items

on their perceptions of the CM activities. That is, students were asked to express the advantages of the use of CM in learning writing. Statistical Analysis was used to find the results. The overall results revealed high positive responses towards the usefulness of the CM strategy. In addition, students were asked to report their interest and satisfaction with the CM strategy, and the degree to which CM was a positive experience in learning writing. The results revealed the participants had a positive perception towards using CM in teaching writing. Further, they enjoyed learning through CM and showed great interest in the strategy.

Table (7)

Students' Perceptions towards Concept Mapping as an Instructional Strategy

Perceptions	0	10	20	30	40	50	60	70	80	90	100	Average %
1. Using Concept Mapping helped me write a focused essay.					3.7	14.8	29.6	33.3	18.5			74.8
2. Using Concept Mapping helped me use details to support my ideas.					11.1		25.9	51.9	7.4	3.7		75.6
3. Using Concept Mapping activated my vocabulary.								25.9	11.1	63.0		93.7
4. Using Concept Mapping helped me correctly spell all words in the essay.				3.7		25.9	40.7	11.1	11.1	7.4		71.9
5. Using Concept Mapping helped me write grammatically correct sentences.					3.7	29.6	37.0	7.4	14.8	7.4		72.2
6.Using Concept Mapping helped me correctly use punctuation in the essay								7.4	29.6	63.0		95.6
7. Concept Mapping helped me remember my thoughts.						11.5	11.5	42.3	26.9	7.7		80.8
8. Concept Mapping helped me relate what I already know with the new knowledge that I learned.						3.8	30.8	34.6	26.9	3.8		79.6
9. Using Concept Mapping is better than brainstorming alone.					7.4		22.2	29.6	18.5	22.2		81.9
10. I liked using Concept Mapping as a pre – writing technique.							11.1	22.2	40.7	25.9		88.1
11. I would like my teacher to continue using this technique						3.7	3.7	22.2	51.9	18.5		87.8
12. I hope that other teachers will use Concept Mapping.								22.2	25.9	51.9		93.0
13. I found this technique useful.							7.4	3.7	29.6	59.3		94.1
14. Concept Mapping made the writing process enjoyable.	3.7							18.5	40.7	37.0	3.7	88.5
15. I found Concept Mapping boring.	25.9%	40.7%	18.5%	7.4%							7.4%	17.4
16. I wish that our teacher won't use Concept Mapping anymore.	96.3%		3.7%									0.7
17. I feel that Concept Mapping didn't improve my writing ability.	65.4%	26.9%	3.8%					3.8%				6.2

Table (7) Continued: Students' Perceptions												
Perception	**0**	**10**	**20**	**30**	**40**	**50**	**60**	**70**	**80**	**90**	**100**	**Average %**
18. I feel that Concept Mapping helped me like responding to the writing prompt.	7.7		3.8		3.8	11.5	26.9	26.9	19.2		7.7	67.7
19. Concept Mapping helped me feel confident in my ability to express my thoughts in writing.						7.7	23.1	46.2	11.5	11.5		79.6
20. Concept Mapping helped me like writing classes.						3.8	15.4	23.1	42.3	15.4		85.0
21. Concept Mapping helped me not to feel nervous about writing.						7.7		26.9	38.5	26.9		87.7
22. I would like to continue using Concept Mapping with the guidance of my teacher.								14.8	37.0	48.1		93.3
23. I could continue using Concept Mapping without the guidance of my teacher.						7.4	25.9	40.7	18.5	7.4		79.3

Table (8)

Frequency Distribution of Students' Perceptions towards Concept Mapping

Perceptions	0	10	20	30	40	50	60	70	80	90	100
1.Using Concept Mapping helped me write a focused essay.						1	4	8	9	5	
2.Using Concept Mapping helped me use details to support my ideas.						3		7	14	2	1
3.Using Concept Mapping activated my vocabulary.									7	3	17
4.Using Concept Mapping helped me correctly spell all words in the essay					1		7	11	3	3	2
5. Using Concept Mapping helped me write grammatically correct sentences.						1	8	10	2	4	2
6.Using Concept Mapping helped me correctly use punctuation in the essay									2	8	17
7.Concept Mapping helped me remember my thoughts.							3	3	11	7	2
8.Concept Mapping helped me relate what I already know with the new knowledge that I learned							1	8	9	7	1
9.Using Concept Mapping is better than brainstorming alone.						2		6	8	5	6
10.I liked using Concept Mapping as a pre – writing technique.								3	6	11	7
11.I would like my teacher to continue using this technique.							1	1	6	14	5

Table (8) Continued: Frequency Distribution of Students Perceptions											
Perceptions	**0**	**10**	**20**	**30**	**40**	**50**	**60**	**70**	**80**	**90**	**100**
12.I hope that other teachers will use Concept Mapping.									6	7	14
13.I found this technique useful.								2	1	8	16
14.Concept Mapping made the writing process enjoyable.	1								5	11	10
15.I found Concept Mapping boring.	7	11	5	2							2
16.I wish that our teacher will not use Concept Mapping anymore.	26		1								
17. I feel that Concept Mapping did not improve my writing ability.	17	7	1					1			
18.I feel that Concept Mapping helped me like responding to the writing prompt.	2			1		1	3	7	7	5	
19...Concept Mapping helped me feel confident in my ability to express my thoughts in writing.							2	6	12	3	3
20. Concept Mapping helped me like writing classes.							1	4	6	11	4
21. Concept Mapping helped me not to feel nervous about writing.							2		7	10	7
22. I would like to continue using Concept Mapping with the guidance of my teacher.									4	10	13
23. I could continue using Concept Mapping without the guidance of my teacher.							2	7	11	5	2

The students' responses to the questionnaire regarding the perceived usefulness of the Concept Mapping teaching strategy are shown in Tables (7, 8, 9 & 10). The researcher, in her inquiry about participants' perceptions of their improvement in "Areas of Writing Abilities" asked students which areas have mainly improved while using CMs. All students (Table 8) found that Concept Mapping activated their vocabulary. The average score for this item (Q.3) is 93.7 (Table 7). Twenty six (26) students (Table 8) found using Concept Mapping to some extent helpful in correctly spelling all words in the essay since the average score for this item is 71.9 (Table 7). Though the ability to use correct grammatical sentences is necessary in writing, it seems that using Concept Mapping did not help much in writing grammatically correct sentences as the average score for this item (Q.5) is 72.2 (Table 7). However, all students (Table 8, Q.6) found using Concept Mapping helpful in correctly using punctuation on the essay since the average score for this item is 95.6 (Table 7) indicating a very

positive perception. Twenty five (25) students (Table 8, Q. 17) found that using Concept Mapping was helpful in improving their writing ability since the average score on this item (Q.17) is 90.7. The average of this score was reversed since this item is negative. Yet, there was one student who was not sure that CM strategy improved her writing ability and gave it a score of 30. Most of the students had answered that Concept Mapping helped them like writing classes (Table 8, Q.20). As one can see from the previous two tables, 25 students scored this item between 70 and 100. Only one student scored it 60, but this still shows a positive response. The average for this question was 80.0. Moreover, 25 students, who scored Q. 11 between 70 and 100 hoped that their teacher will continue using this technique. The average for this question was 87.8 (Table 7) which showed very positive perceptions.

Pertaining to the writing process questions, students were asked how they began writing a composition. Twenty four (24) students (Table 7) wrote that CMs helped them like responding to the writing prompt. The average for this item (Q.18) is 67.6 indicating somewhat positive responses. Yet, two students found CM not helpful in responding to the writing prompt as they scored this item zero. In addition, one student scored it 30 as she wasn't sure about its effectiveness and one student was ambivalent in her response to this item as she scored it 50. All students (Table 8) thought that CM made the writing process enjoyable except for one student who found it boring. The average score for this item (Q.14) was 88.5 indicating a positive response. Moreover, 25 students (Table 7) found using Concept Mapping better than brainstorming alone since they gave the item (Q.9) a score of 70 and above. The average of their scores was 81.9. All students (Table 8) liked to continue using CM with the guidance of their teacher as the average score for this item (Q.22) is 93.3 (Table 7). On the other hand, based on their responses to item (Q.23) it seems that they are hesitant about using the CM without any guidance from their teacher since the average score is 79.3.

Concerning ideas and organizational ability while writing, students were asked how CM helped them in their meaning making while composing. Most students found Concept Mapping helpful in using details to support their ideas as

the average score for this item (Q. 2) is 75.6 (Table 7). Twenty two (22) students (Table 8) felt that using Concept Mapping helped them write a focused essay. The average score for this item (Q.1) is 74.8 (Table 7). Most students thought that CM helped them remember their thoughts as the average score for this item (Q.7) is 85 (Table 7). Moreover, they thought that Concept Mapping helped them relate what they already know with the new knowledge that they learned since the average score for this item (Q.8) is 68.5. Most students believed that Concept Mapping helped them feel confident in their ability to express their thoughts in writing since the average score for this item (Q. 19) is 74.6 (Table 7).

From this evidence, certain conclusions can be drawn. First, students generally liked to write and to respond to the 17 writing prompts since the average score of this item (Q. 18) is 67.7. Second, all of the students believed CM helped them. Most of them indicated that they began writing a composition by creating a Concept Map. Also, the same number of students liked Concept Maps because they would not forget their ideas when they used one as the average score for this item (Q. 7) is 80.8 (Table 7). From this data, one can conclude from the students' responses that they believed that Concept Maps helped them organize their writing. Not only did a number of them find these maps helpful in remembering their thoughts but used this process as a way of beginning a composition since the average score of this item (Q. 10) is 88.1 (Table 7). Furthermore, it seems that using CMs was influential as 25 students (Table 8, Q.17) found that CM improved their writing abilities. Moreover, it is crystal clear that the students' positive perceptions towards their writing abilities were the strongest regarding vocabulary. After that, their positive perception towards ideas and organizing them came next, and the least positive perception was towards improvement achieved in their syntactic awareness. This, actually, confirms the results of the t-test as presented in table (2). Generally speaking, the findings of the questionnaire are buttressed with the findings of the t-tests of the 17 writing prompts where they used these maps to write. As can be seen, by the subjects' statements, there is an indication that the CM strategy helped them improve their writing ability. The students agreed that Concept Mapping is not only an effective tool that facilitated

the writing process, but it is also an affective strategy that promoted self-confidence and reduced anxiety while boosting interest and motivation (Tables 7 & 8, Qs. 19, 20 & 21)

Question #Seven: Does Concept Mapping strategy have an effect on participants' writing performance when writing tasks are conditioned?

Finally, the last research question focused on evaluating the effectiveness of the CM strategy on the participants' writing performance under the three writing task conditions: normal in-class writing, under an exam atmosphere and at home as homework assignments. There were two variables involved in this research question. The independent variable was the three writing task conditions, and the dependent variable was the 17 post-test essays scores. To determine whether there was a significant difference between the Control and the Experimental Groups' gain scores under the three writing task conditions, an ANOVA test followed by Post Hoc tests (i.e. LSD method) were conducted. The following tables show the analysis of the results.

Table (9)

Descriptive Statistics of the 17 Post-test Essays Total Gains by Groups Reclassified According to the Three Writing Task Conditions

Condition	Group	N	Mean	Std. Deviation
Exam	Control	28	15.1679	4.39840
	Experimental	28	24.4071	4.61864
home assignment	Control	27	8.8111	7.63853
	Experimental	27	26.5519	3.39834
in class	Control	28	16.0429	4.71612
	Experimental	28	28.2500	3.92065

Table (9) shows the descriptive statistics of the17 post-test essays reclassified according to three writing task conditions collected from the Control and Experimental groups. The pair-wise comparisons demonstrated that the Experimental Group outperformed the Control Group. The noticeable differences in means indicate that the CMs training of the Experimental Group under all writing task condition was effective and has improved the writing ability of the eleventh grade Palestinian foreign language learners. Based on the One Way Analysis of Variance (ANOVA), the findings revealed that the Experimental Group got the highest scores in in-class writing tasks. Moreover, the Experimental Group did better in home-assignments than in under exam conditions. Yet, the difference was small. On the other hand, the Control Group got the highest mean in in-class writing tasks. In addition, they did better in writing tasks under exam condition atmosphere than in writing tasks written at home as homework assignments.

Table (10)
Results of One Way Analysis of Variance Test of the Three Writing Conditions on Total Composition Scores

Group		Sum of Squares	Df	Mean Square	F	Sig.
Control	Between Groups	851.642	2	425.821	12.90409	.000
	Within Groups	2639.896	80	32.999		
	Total	3491.538	82			
Experimental	Between Groups	207.654	2		6.433	.003
	Within Groups	1291.256	80	103.827		
	Total	1498.910	82			
				16.141		

Table (10) presents the One-Way Analysis of Variance results for the three writing conditions. The One Way Analysis of Variance test reveals that there is a significant difference between groups (F= 12.90409, P=.000). The

results suggest that learners (both the Experimental and the Control Groups) performed differently across the three writing task conditions.

Table (11)
Post Hoc LSD Results (Multiple Comparisons) for the Three Writing Task Conditions by Group

Group	Dependent Variable	(I) Writing Conditions	(J) Writing Conditions	Mean Difference (I-J)	Std. Error	Sig.
Control	Total	Exam	Home assignment	6.35675(*)	1.54942	.000
		In- class	Exam	.15357	.24759	.537
Experimental	Total	Home assignment	Home assignment	7.23175(*)	1.54942	.000
		In- class	Exam	2.14471	1.08363	.051
		In- class	Exam	3.84286(*)	1.07374	.001
			Home assignment	1.69815	1.08363	.121

* The mean difference is significant at the 0.05 level.

Table (11) displays the results of the post hoc tests using the LSD method to investigate which pairs of comparisons among the writing task conditions led to significant results. These results show that significant mean differences were found among the pair-wise comparisons within two condition levels. Distinctively, the comparison groups showed significant differences except one pair-wise comparison for the control group which include comparison between the in-class and exam conditions and two condition levels for the Experimental Group. They are between home assignment and exam conditions and the other pair-wise comparison is between the in-class and home assignments conditions. Thus, this table shows that a significant difference exists between in-class and exam conditions. Based on the above results, overall, the condition factor contributed significantly to distinguishing learners' written performance.

Chapter Six

Discussion, Implications and Conclusions

Discussion

The purpose of this study is to investigate the effectiveness of CMs on writing abilities and perceptions. The results presented in the previous chapter provide strong evidence for its effectiveness, which is supposed by the apparent differences between the results of the Control and Experimental Groups. The first research question addressed the effect of CMs on the writing abilities of the students. The results suggest that explicit instruction of the CM strategy had a positive effect on the students' writing achievement. The overall analysis of the mean rubric score data suggests that the use of CMs has a statistically significant effect on the students' writing skills. For example, Table (2) indicates a sizeable difference in mean rubric scores between the Control Group and the Experimental Group. Indeed, by comparing both groups on each individual rubric trait, it was found that the gains of the subjects in the Experimental Group are almost double those of the Control Group. These findings are consistent with Lee (2010) and Ojima's (2006) findings that CM provided experimental evidence for its effectiveness as a prewriting planning strategy in foreign language context. Further, the finding of the present study is consistent with the findings of Zipprich (1995) and Cronin, Meadows, and Sinatra (1990), which provided evidence for the positive effects of mapping strategy on academic writing. Furthermore, these results are consistent with earlier research examining the effect of CMs on the writing of various student populations, especially when students used CMs prior to writing summaries of expository texts. Their writing included a great number of propositions (Reutzel, 1986), main ideas (Carnot, 2006) and idea units (Draheim, 1983) than when CMs were not used. The subjects of the current study wrote better essays after training in using CMs.

A comparison of the mean scores of the Experimental and the Control Group on the seventeen post-tests and pre-tests shows that the subjects in the

Experimental Group outperformed on post essay writing tests in comparison with the Control Group. To explore the significant differences of the two groups, the Independent Sample t-test was run. The results (p = 0,000 <, 05) indicated that the difference between the two groups is meaningful. In other words, it shows that there is a significant difference in the 17 post-test scores between the two groups. The results of this study indicated that the explicit instruction of strategies, especially the implementation of the CM strategy that led to students' writing awareness was effective. This study supports Negari's (2011) statement that the focus on the processes of writing in a second or a foreign language, despite the challenges against the process of writing, will decrease the complexity and the difficulty of the writing task for both the learner and the teacher.

Both groups were told to write seven argumentative essays, and seven expository compositions, as well. The expository writing task and the argumentative writing task were chosen because both task types are not only considered to be typical of academic assignments (Silva, 1993) but also supposed to obtain different features of a writing task. In an expository writing task, participants can be deeply engaged in the task based on their experience in a more familiar area. On the other hand, an argumentative task necessitates participants to be aware of a formal register and the rhetorical conventions essential for arguments along with an ability to manipulate abstract concepts (Roca de Larios et al., 1999). An argumentative writing task is expected to be more cognitively demanding because it entails the participants to deal with unfamiliar information and to decide how to support or defend their own position on a given topic. The expositional and argumentative writing tasks entail different aspects of writing regarding the use of rhetorical convention, register, and sources of information (Shin, 2008). Thus, the tasks seem to be suitable for the raters to make use of it in deciding participants' writing ability on the basis of their written performance of different task types.

The analysis of subjects' writing samples reveals the skills tested in the Analytical Rubric. Despite the fact that a text cannot directly reveal the composing process behind it, as stated by Kaminski, Lazer and Bean (1993) in

their study, it can present insight into the knowledge structures that the writer used to control the composition. Analyzing, for example, the overall grammatical structure of the essays can provide an indication of how writers organize their writing and manage its complexity. Thus, the next research questions focused on examining the effect of CMs on the writing components. To start with, the second research question looked at the effectiveness of CMs to recall the learned and the acquired vocabulary (both the mean scores as well as the t-test were run). The length of the essay was also used as a measure. It is clear that CMs helped the subjects in the Experimental Group to lengthen their essays written in class, at home, or under exam conditions. Moreover, CMs helped students to correctly choose appropriate words from the brainstorming phase prior to the CM planning phase.

This, in turn, CMs helped students to activate the use of these vocabularies in meaningful propositions. This was referred to in the literature as fluency. Fluency, according to Isaacson (1996), is the total of words written down on paper, roughly counted, without examining the accuracy of spelling, punctuation, and other writing conventions. The students' ability to recall main concepts was better than the subjects of the Control Sample (Table 3). Indeed, students in creating their CMs should use key words that should be representative of the specific concepts chosen. These series of words were laid out in a graphical representation with reciprocal links and connections. It seems using CMs helped students in memorizing the information learnt. This was depicted in the connections they made and their abilities to synthesize as a result of meaningful learning they went through using this technique. Yet, while making connections, learners actually cared more about the relations they saw between these concepts, regardless of meaning reference or specific linguistic reference (Cicognani, 2000).

CMs had brought students to such a high level that they could begin to choose the relevant vocabulary that is suitable for each text pattern. Thus, they were able to identify the fundamental vocabulary skills that helped them describe, argue, compare and contrast, for example. The findings confirm the results of Negari (2011) that CMs helped the subjects organize their thoughts in pictorial

representations which increased their conceptual understanding which, in turn, helps them organize their ideas. Moreover, CMs reflect every student's schematization. CMs represent both the authors' knowledge and their writing skills. In an educational context, the terminology used by the student is also important for assessing the outcome, so CMs should be represented using the terms that the learners used in their texts. If a student uses a certain word to refer to a particular concept, this choice undoubtedly reflects his/her vocabulary level. Hence a CM should recall this information. This means that poorly written essays should be able to produce a CM with meaningful propositions that should also reflect the learner's limited writing skills such as spelling and grammar errors (Villano and Calvo, 2011).

It is important to note that the subjects in the Experimental group had higher gains than the subjects of the Control Group in organizing their ideas (Table 4). It is apparent that using CMs helped students to order their knowledge and to stay consistent to the correct form of their essays. It was assumed that the CM, as a strategy tool, will make a tangible difference when more organization is done. The more students approached their essays in a structured framework, the better they were able to achieve focus in their essays and make them more effective. The findings in the current study regarding the organization of thoughts and the correct form are in line with the findings of Ahangari and Behzady's (2011), Draheim's(1983) and Kaminski, et al.'s (1993) studies, when the Experimental Group retained more main and subordinate ideas and used them significantly in their essays than the Control Group did. The findings confirm what Pishghadam and Ghanizadeh (2006) reported that CMs enhanced idea generation, organization and association.

Regarding the fourth question, the mean gains and the t-test showed that the CMs helped the subjects in the Experimental Group to write grammatically correct sentences. Their mean scores were significantly better than the Control Group. Yet, as shown in (Table 5), grammar use has the lowest mean. This might be the result of strong interference from their first language (L1) as concluded from the errors committed by the students. The students, for example started their

sentences with a verb. Also, they sometimes forgot to put a verb or a linking verb. This is actually very similar to the nominative sentences in Arabic. Moreover, they kept using the conjunction "and" which is similar to the use of "wa" in Arabic. Furthermore, some students put the adjective after the noun (Please see Figures 15 & 16 for some of these errors). This could be explained through the Contrasted Analysis Hypothesis (CAH). According to the contrastive analysis hypothesis formulated by Lado (1957), problems in acquiring a new (second) language are obtained from the differences between the novel language and the native (first) language of a language user. Among the commonly observed syntactic error sorts in non-native English which it has been argued are attributable to language transfer are subject-verb disagreement, noun-number disagreement, and misuse of determiners (Wong & Dras, 2009).

Regarding the Control Group gains, the majority of their mean scores showed that most of the students in the Control Group didn't pass the writing assignments. In fact, their writing was flawed. In other words, they reflected weak organization and many irrelevant details. Many serious errors in sentence structure, usage and mechanics were obvious as well. For instance, one student wrote:

> The many ships it's disappeared in Barmoda triangle such as cyclopse it's include 300 mempers it's disappearaness and the mary celest it's include 10 crues, while arrived there the eqepment it's stoop work also the DerGracia ship dis appere there.

Another student related all her ideas to make the introduction of an argumentative essay titled "Road Accidents" just like this "The body speed high percentages of deaths and injuries and bad weather its raning snowing foggy". Another example on the same topic written by another student who intended to present her logic in her introduction is the following" The streets full of abusy thes make care crashes of and death the pedestrian. The driving distraction example speed and action so tad leads to tragic storiz." As noticed, their writings reflect their lack of responsibility of point of view or to guide their thoughts. Besides, their paragraphs do not have predication (i.e. sentence making, to predicate is to assert an idea). Also, it is obvious that there is unease in putting

words together. Moreover, their writings show lack of organization in thoughts. Thus, there was no clarity of statement which reflects no clarity of their understanding (cf. to Miles, 1979).

Finally, pertaining to the fifth question, the results in (Table 6) revealed that the Experimental Group gained higher in punctuation than the Control Group. The results of the current study contrast with those of pervious research that reported no effect of CMs on writing mechanics such as Ahangary and Behzady (2011). Also, to the best of the researcher's knowledge, there are no studies on the effect of CMs on students' punctuation. Thus, this study is the first to look at this effect. Yet, further experiments should confirm the results reported here. McAndrew (1990) believes that "as long as the mechanical processes involved in writing are themselves highly conscious, slow, or even labored, writers are not likely to have easy access to their thoughts"(p.1). Actually, concerning dealing with Learning –Disability students, Graham (1999) admitted the negative impact of lower-level skills deficits such as spelling and handwriting upon the higher-order skills such as planning and composing. Suggestions included explicit and systematic strategy instruction in spelling and handwriting. He summarized that switching attention during the process of composing from higher-order composition skills to lower-level skills, such as the mechanics of spelling or handwriting, may cause writers with Learning Disabilities to lose track of the thoughts that they had planned to integrate into their written discourse. He concluded that when mechanical features such as handwriting are developed, a decrease in cognitive demands is recognized and compositional fluency enhances.

Students' Perceptions of Concept Maps

This study surveyed the Experimental Group's perceptions of the use of the CMs as a pre-writing strategy. It was assumed that the individual hand-drawn CMs would affect students' concerns about making mistakes in writing in a foreign language. Such data could be useful in adopting a strategy-based instruction that promote the use of CMs in writing learning contexts. In addition,

the study proposed that the layout of CMs would decrease the language learners' cognitive loads during writing. The students expressed that they enjoyed drawing CMs. However, there were few students reported that the CM strategy was not enjoyable and it did not help them improve their writing ability. Actually, the CM technique was a quite novel strategy for the language learners to plan their writing. Some students may have struggled to integrate the novel strategy into their own learning styles. Though prior training sessions were implemented to familiarize the subjects with the strategy, it seemed more training was needed for those struggling writers. The survey also showed that the Experimental Group's expectation of the usefulness from the CM strategy was very positive. This sense of benefit from the planning activity is essential as it may influence the learners' motivation to engage in the writing task (Ojima, 2006).

Looking in depth at the results of the sixth research question, one can see easily that the students' perceptions were very positive (Tables 7& 8). The Perceived Usefulness of Concept Mapping Questionnaire based on percentage rating was used to assess the items. This kind of questionnaire is believed to be better than the usual Lickert Scale since greater discrimination was believed to increase prediction (Pajares, 2002). The questionnaire examines personal learning beliefs about CMs in general as well as further personal psychological traits. The questionnaire consisted of 23 items which have been classified in two parts according to the researcher. It was relevant to students' perceptions towards using CMs as a pre-writing strategy and its usefulness. The first items have to do with "Areas of Writing Abilities." Students were asked which areas have mainly improved while using the CM strategy. Most students found that using CM helped them activate words appropriate to their essays. They also agreed that using CMs was helpful to correctly spell all words in the essay. All students found using Concept Mapping helpful to correctly use punctuations in the essay since the average score for this item is 95.6. Moreover, almost all students agreed that CMs helped them in their writing. Indeed, almost all the students expressed the views that the CM strategy was really helpful in improving basic writing skills such as spelling, sentence formation, punctuation and handwriting.

The other part of the questionnaire shows that most students held highly positive perceptions towards the use of the CM strategy and agreed that concept mapping was a useful strategy in the process of writing (Q.10). The great mass of the students liked and felt satisfied with adopting CM as a supportive pre-writing strategy. Students agreed that adopting the CM strategy helped them reduce the hurdles and enhance their interests in writing. The students also believed that CM could be easily applied to other scientific disciplines (Novak, 2010 & Charlut and Debaker, 2003). The data collected from the questionnaire in the current study helped to illuminate the interpretation of the quantitative analysis concerning the effects of CMs on EFL student's writing. The results of the questionnaire were the same as those of the 17 post written essays. The order of the given questions on both the questionnaire and the 17 post written essays were corresponding to each other. The opinions of the students were in correspondence to the results of the 17 post-tests, which revealed that the order of improvements in their writing components was as follows: vocabulary, organization and grammar. With these findings, students were aware of their capabilities of sequencing the writing components (vocabulary, organization and the least is grammar).

Finally, the last question focused on the effect of individual CMs under three writing task conditions. Indeed, to the best of the researcher's knowledge, this study is the first to look at the effect of CM on English Language Learner's writing performance under these three writing task conditions: in-class writing tasks, exams and home assignments conditions. To answer the last question, the study utilized the One Way ANOVA test. Tables (10 &11) display a significant difference between the post-tests scores of the Control and the Experimental Groups (i.e. $p=.000< .05$). The results indicate that the CMs training of the Experimental Group was effective and has improved the writing ability of the eleventh grade Palestinian foreign language learners. The findings revealed that the Experimental Group got the highest scores on in-class writing tasks and that there was a significant difference between the in-class written essays scores and the essays written under an exam atmosphere and that is for the sake of in-class writing tasks' scores. This could be justified with the following two reasons.

First, an oral brainstorming for the main ideas took place since brainstorming was believed by Al Nakbi (2011) to create a nonthreatening atmosphere. This, in turn, might aid in the development of the EFL students' writing skills. The other reason is that embedded in in-class written essays instruction was a number of questions that activated the student's ideas and prompted them to add thoughts and to expand what they had already generated. In addition to this finding was that the Experimental Group did better in home-assignments than in under exam conditions. Yet, the difference was small and insignificant as shown in table (11).

The findings of this research question are in line with the participants' responses to Q. (22) and Q.(23) of the Perceived Usefulness of Concept Mapping questionnaire. These responses indicated that the subjects would like to continue using CMs with the guidance of their teacher. The average score on this item was 93.3 indicating a very positive perception. By contrast, they were not sure that they could continue using CMs without the guidance of their teacher as the average score was 79.3. Perceptions can have a strong effect on whether students engage actively and positively in tasks they find challenging. Thus, it seems that the subjects' perceptions towards their capability to perform the pervious tasks with the help of CMs either at home, under exam conditions, or in- class affected these scores. This conclusion could also be augmented by the findings of the Control Group performance under the three writing task-conditions. This is because the results showed that whatever is written inside the classroom, either under exam conditions or normal in-class conditions had better scores than the essays written at home as homework assignments. The support, encouragement, as well as the guidance provided by the teacher motivated students to write better under these conditions.

In fact, it was important to judge the effectiveness of creating CMs as a prewriting planning technique under real exam conditions, especially under strict time limitations and in an atmosphere of stress and anxiety. These daily exams offered controls to allow for a comparison between essays which were written under identical conditions. It is worth mentioning that the topics participants wrote about were familiar since they had some knowledge about them from

previous written assignments. In reviewing their scores, one can easily see that the Experimental Group students did better than the Control Group. Students had to brainstorm silently. Exam conditions meant time restrictions. Students thus had to plan and organize their thoughts in about forty minutes. The positive finding of the Experimental Group under exam conditions was in contrast to the claims that when students have less time to write, then students won't show what they know or think about a specific topic (Al Naqbi, 2011).

To summarize, the study examined seven research questions relevant to the use of CMs as a pre-writing planning strategy in English as a foreign language in writing classes. The statistical findings indicated that the Experimental Group who used CMs in the process of learning writing surpassed the Control Group participants on all measures of the analytical rubric. In addition, this study surveyed the experimental group's perceptions on the use of CM strategies in their writing process. Generally speaking, students showed positive perceptions towards CM strategies and understood the advantages of these strategies for their writing.

Implications and Recommendations

This study proved that the application of CM strategy, through explicit instruction, can assist Palestinian students in improving their writing performance. Through CM strategy, students can easily understand and organize their thoughts in graphic representations. In other words, graphical representation of thoughts increases the students' conceptual understanding which in turn helps them organize their thoughts. The findings of this study reveal that CM as a cognitive tool can enhance learners' thinking. It can also help them improve their writing skills in terms of thesis statement, organization, vocabulary, mechanics of writing and language use. The results of the present study are in line with findings of some previous studies (Talebinezhad & Mousapor Negari, 2001; Ojima, 2006; Pishgadam & Ghanizadeh, 2006; &Ahangari &Behzady, 2011).

The study addressed seven research questions. The seven research questions were investigated quantitatively. For this study, two eleventh grade classes were randomly assigned. One of these classes was experimental because their teacher used CMs in helping them write compositions. The same teacher in the control class, the Control Group, used no instructional strategy in presenting the prompts for students to write. Students in the two eleventh grade classes wrote seventeen compositions between the months of late September to mid May. Two experienced teachers assessed the seventeen compositions using an analytical rubric. These scores yielded means, and t-tests were performed to compare the two classrooms. The quantitative data showed that CMs had a significant effect on students' writing. As for the sixth question, questionnaires were filled by the students and later analyzed by the SPSS software program. After analyzing the data, it was found that they had very positive perceptions towards using this strategy. These results support the finding that the Experimental Group writing scores were better than the Control Group scores because they used CMs. Finally, to answer the seventh research question, a quantitative data was needed. One Way Analysis of Variance followed by Least Square Differences (LSD) test was discussed. In addition, some of the students' responses to the questionnaire data were analyzed as well.

Several conclusions can be drawn from the study's results. One is how Concept Maps are used. Due to the long period of the implementation of the CMs and the heavy practice done in this period, students gained experience in using them as a way of understanding concepts and as a writing strategy. Also, they developed facility with English when they went through the concrete experience of creating CMs that linked various concepts. Further, they were able to develop their language skills by crafting well-written sentences that clarified the relationship between concepts. This ongoing exposure and training in drawing CMs led students to feel confident about using these CMs with and without their teacher's assistance. This experience also led them to write well enough that their essays from the first writing prompt outperformed the writing of the Control Group. After completing the implementation of CMs with the students, they

stated that they would use this strategy next year, even if their teacher did not use it.

Secondly, the researcher believes that the CM strategy has the potential for improving student writing as it was proven statistically in this study. From the first writing prompt and under all exam conditions, the Experimental Group had mean scores higher than the pass score and higher than the Control Group' mean scores. Under the exam conditions, the students were able to create their own CMs without teacher guidance. They were empowered in taking control of organizing their writing. Thus, CMs may be able to help these students demonstrate their knowledge by assisting them to organize their ideas so that they can use different effective modes of writing. In addition, because CM is a student-directed strategy that does not depend on teacher participation, it is easily adopted by writers. Furthermore, Concept Mapping is flexible enough to be useful in a variety of educational settings. Educators may enhance the achievement as well as the self-efficacy of their students by familiarizing them with the CM strategy.

Finally, the researcher learned from the students' responses to the perception questionnaire items and from the rubric scores how important it is for students to address the prompt when they are composing. It was important to deconstruct the writing prompt with the students. In other words, it was important to clarify the prompt, review it, ask several questions about the prompt and remind the students to reread the prompt while they were writing to ensure they were on topic. After students understand what the prompts require, teachers should guide the students in the drawing and the ordering of their ideas. The ability to effectively address a writing prompt is an important gateway skill for students to have. When they apply for college, they will often have to write several essays in response to prompts within a certain time limit. If students are able to effectively address the prompt, they will have a better chance of producing their best written work. Besides, the researcher believes in the necessity of explicit instruction on essay writing. This conclusion comes as a result of showing

examples of well-structured paragraphs and the characteristic features of English essays to both groups, Control and Experimental, which helped in the improvement of writing quality.

The researcher hopes that this study will provide some benefits to the English teaching- learning process, especially in teaching writing composition. There are two kinds of benefit from this research; theoretical benefits and practical benefit. The results of this research will enrich the theory of teaching writing through CM. The study can be used as a reference for those who want to conduct research in improving English writing. As for the practical benefit, teaching writing through CMs is expected to be able to motivate the students to be interested in learning writing composition. The findings of this study also have some major pedagogical implications. As for English language teachers, it would be beneficial to integrate the CM strategy in their classes on a regular basis as a Pre-writing planning tool for writing. In doing so, teachers are in a better position to not only enhance learners' creativity but also monitor their weaknesses in reasoning and logic. To implement CM as a pre-writing planning strategy, teachers can encourage learners to concentrate on the main ideas or concepts. They should be then instructed to discover the possible relationships among ideas and then connect them to the main idea. To better familiarize students with the CM construction, teachers may create a Master CM of a corresponding passage (similar to the ones taught in literature classes) with some circles and arrows unlabelled and ask the students to fill in the empty spaces of the incomplete teacher-constructed CM (See Appendix D). Another major implication of this study for English language instructors and learners derives from the fact that CM can be appropriately attributed to higher levels of learning. Indeed, experienced knowledge is gained through developing rich and connected sets of organized knowledge.

Besides, the study has some implications for language teaching and learning. The students can become better learners if they become more aware of their learning processes and then decide to act on that awareness (Negari, 2011). Teachers may augment their students’ confidence in writing by familiarizing them

with the CM strategy. Similarly, the study has some implications for syllabus design. Concept-based teaching can teach students to classify and to support the students' creativity and self-awareness. Not only is this way of teaching helpful for writing but it also improves students' sense of retention, understanding and classroom performance. Hence, it will be very helpful for teaching other skills as well. Future research should compare hierarchical and relational CMs with different kinds of graphic organizers for the same activity. The layout and structure of the graphic organizer may influence the effects on student's writing abilities. Also, it would be helpful if more studies explore the relationship between CM scores and essay writing scores and the possibility of implementation of computer-based concept mapping tool for English language classes.

Furthermore, additional research is needed to better understand how this strategy can support students with writing difficulties and how its effectiveness varies with different modes of writing. Besides, further research is needed to examine the effects of using hierarchical and relational CMs in English writing with varied levels of participants. Research across a range of contexts and different modes of writing is needed to understand several issues concerning the inherited traits of CMs and the traits of writing compositions more completely. Such research would ideally enlarge the approach to include a thorough analysis of the content of students' essays and their errors. Moreover, introspective think-aloud studies examining CM strategy can aid researchers to find what happens in students' cognition and meta-cognition when creating their CMs.

References

Abu Nada, M. (2008). The Effect Of Using Concept Maps on Achieving English Grammar Among Ninth Graders in Gaza Governorate. Unpublished Master's Thesis. The Islamic University, Gaza.

Ahangari, S. & Behzad, L. (2011). The Effect of Explicit Teaching of Concept Maps on Iranian EFL Learners' Writing Performance. *American Journal of Scientific Research*, Iran, (61) 2, 100-112.

Åhlberg, M. (2004). Varieties of concept mapping. Poster presented at the First International Conference on Concept Mapping, Public University of Navarra, Spain. September 14-17.

Alamargot, D. & Chanquoy, L. (2001). Nature and Control of Processing. In G. *Rijlaarsdam* (Series Ed.) & D. Alamargot & L. Chanquoy (Vol. Eds.), *Studies in writing: Vol. 9. Through the models of writing.* (pp. 125-154). Dordrecht: Kluwer, Academic Publishers, Iran.

Alarcon, J. & Morales, K. (2012). Grammatical Cohesion in Students' Argumentative Essay. *Journal of English and Literatue,* Manila, Philippines, 2(5), 114-127.

Al Naqbi, S. (2011). The use of mind mapping to develop writing skills in UAE Schools, Education, Business and Society: *Contemporary Middle Eastern Issues*, UAE. 4 (2). 120–133.

Alvermann, D. E. (1988). Effects of spontaneous and induced lookbacks on self-perceived high and low-ability comprehenders. *Journal of Educational Research, 81*(6), 325-331.

Anderson, T, & Huang, Ch. (1989). On Using Concept Maps to Assess the Comprehension Effects of Reading Expository Text. Technical Report. University of Illinois at Urbana-Champaign. Illinois, USA.

Andrews, R., Torgerson C., Beverton S., Freeman A., Locke T, Low G, Robinson A & Zhu D (2004). The effect of grammar teaching (sentence combining) in English on 5 to 16 year olds' accuracy and quality in written composition: Review summary. University of York, UK.

Antoniazzi, M. (2005). Prewriting in E F L. Revista Enfoques Educationales. Universidad de Chile, Iran, 7 (1): 35 – 49.

Arni, L. & Outcomes, N. (2008). learning *Theories- Cognitive Learning Theories*- (chapter 5).Miscellaneous Papers in Computer and Information Science. Aisiaeuniversity (AEU), 1(1). *EBSCO*. 104-141.

Ausubel, D. (1963). *The Psychology Of Meaningful Verbal Learning: An Introduction to School Learning.* New York, Grune & Stration, Inc.

Ausubel D. (1968). *Educational psychology: A cognitive view*. New York: Holt, Rinehart and Winston

Avery, P, Baker, J & Gross, S. (1996). Mapping Learning at the Secondary Level. *Social Studies*. 87 (5), 217-.222

Bandura, A. (1989). Human Agency in Social Cognitive Theory. *American Psychologist*, 44 (9), 1175–1184

Bardos, E. & Maybury, S. (2012). Overcoming Writing Difficulties. Information Sheet 17. Peakhurst NSW.

Badrova, E & Leong, D. (1998). Scaffolding Emergent Writing in the Zone of Proximal development. *Literary Teaching and Learning*, 3(2), pp. 1-18

Berkenkotter, C. (1982). Writing and problem solving. In T. Fulwiler & A. Young (Eds.), Language connections: writing and reading across the curriculum.(p.33-44). Urbana: National Council of Teachers of English.

Bowen, K & Cali, K. (2003). The five features of effective writing, The University of North Carolina at Chapel Hill School of Education. Retrieved on 11th Sep, 2011 from www.learning.org/lp/editions/few.

Brynildssen, S. (2000). Vocabulary's Influenced on Successful Writing, *ERIC*, Clearinghouse on Reading English and Communication, Bloomington IN

Buckely, M. H & Boyle, M. (1981). Mapping the Writing Journey: Curriculum Publication. No. 15, Tolman Hall, University of California: Berkely, school of education Business Office.

Buzan, T. (1974). *Use your head*. London: BBC Books.

Cañas, A., Coffey J. & Carnot, M. Feltovich, P. Hoffman, R. Feltovich, J. & Novak, J. (2003). A Summary of literature pertaining to the use of concept mapping techniques and technologies for education and performance support. Prepared for the Chief of Naval Education and Training. Pensacola FL 32500.

Carnot, M. J. (2006). Using Concept Maps to Organize Information for Large Scale Literature Reviews and Technical Reports: Two Case Studies. Concept Maps: Theory, Methodology, Technology: The Second International Conference on Concept Mapping. San José,

Carter, M. Miller, C. R & Penrose. A. M.(1998). Effective Composition Instruction: What does the Research Show. Center for Communication in Science, Technology, and Management. Publication Series, Nº 3. North Carolina State University.

Cassata-Widera, A, E. (2008). Concept Mapping and Early Literacy: A Promising Crossroads. In A. J. Cañas, P. Reiska, M. Åhlberg & J. D. Novak (Eds.), *Proc. of the Third Int. Conference on Concept Mapping*. Tallinn, Estonia & Helsinki, Finland.

Castillo,E, P, Mosquera. B., D Palacios, D, L.(2008). Concept Maps: A Tool To Improve Readig Comprehension Skills Of Children With Hearing Impairments. In A. J. Cañas, P. Reiska, M. Åhlberg & J. D. Novak,(Eds). *Proceedings of the Third Int. Conference on Concept Mapping*. Tallinn, Estonia & Helsinki, Finland.

Chularut, P & DeBacker, T.K. (2003). The Influence of Concept Mapping on Achievement, Self-Regulation, and Self-Efficacy in Students of English as a Second language. *Contemporary Educational Psychology*. 29. 248–263.

Cicognani, A. (2000). Concept Mapping as a Collaborative Tool for Enhanced Online Learning. *Educational Technology & Society*. 3(3). 150-158

Coutinho, C. P., & Bottentuit Junior, J. B. (2008). Using concept maps with postgraduate teachers in a web-based environment: na exploratory study. In Proceedings of the Workshop on Cognition and the Web: Information Processing. Comprehension and Learning. Granada (Spain), pp. 139-145.

Crane, M. (1998). Writing away! Out of chaos: Using concepts maps to re-envision students writing. The University of Louisville's writing across the Curriculum Newsletter, 3(4).

Cronin, H, Meadows, D. & Sinatra, R. (1990). Integrating Computers, Reading, and Writing Across the Curriculum. *Educational Leadership*. 48. New York: Columbia University Teachers College. 57-62.

Culham, R. (2003). *6 + 1 Traits of writing: The complete guide (grades 3 and up).* New York: Scholastic Professional Books.

Dawkins, J. (1995), Teaching Punctuation as a Rhetorical Tool, *College Composition and Communication.* 46 (4). 533-548.

Delrose, L.N. (2011). Investigating the Use of Graphic Organizers For Writing. Unpublished Master's Thesis. Louisiana State University, Louisana.

Deqi, Z. (2005). The Process Oriented- Approach To ESL/EFL: Writing Instruction and Research.(2005). *Clea Journal*. Southeast Missouri State University. 28 (5).

Draheim, M. E. (December, 1983). Facilitating comprehension and written recall of exposition through DRTA instruction and conceptual mapping. *Paper presented at the annual meeting of the National Reading Conference, Austin, TX*.

Driscoll, M. (1999). Meaningful learning and schema theory. In M.P. Driscoll (Ed.), *Psychology of* learning for instruction (2nd Edition, pp. 113-151), Needham Heights, MA: Allyn & Bacon.

Duffy, G. (2009). Using Semantic Maps to develop Word Meaning. Excerpt from *Explaining Reading, Second Edition: A Resource for Teaching Concepts, Skills, and Strategies*. Gulford Press.

Duffy, T. M. & Jonassen, D. H. (1992). Constructivism: New implications for instructional technology. In T. M. Duffy & D. H. Jonassen (Eds.), *Constructivism and the technology of instruction: A conversation* (pp. 1-16). Hillsdale, NJ: Lawrence Erlbaum Associates.

Fisher, M., K., Wandersee, H. & Wideman, G. (2000). Enhancing cognitive Skills for Meaningful Understanding of domain Specific Knowledge.

Flores, E, R,(2007). Thinking Skills Reflected in the Argumentative Essays of Freshman College Students: A Descriptive Analysis._*The Asia-Pacific Education Researcher.* 16 (1). De La Salle University-Manila, Philippines. 33-44

Flower, L. (1987). Interpretive acts: Cognition and the Construction of Discourse. Occasional Paper. No. 1. *Poetics* 16(2), 109-130.

Flower, L& Hayes, J.R. (1981). A Cognitive Process Theory of Writing. College Composition and Composition and Communication. 32(4). National Council of Teachers of English. 365-387

Fregeau, L. A.(1999). Preparing ESL Students for College Writing: Two Case Studies. *The Internet TESL Journal* [On-line], 10 (5). University of South Alabama.

Fry, E., Kress, J., and Fountoukidis, D. (2004) *The Reading Teacher's Book of Lists.* Paramus, New Jersey: Prentice Hall.

Ganer, P. (2011). The Reluctant Writer in the Primary Classroom: An Investigation of Mind Mapping and Other Pre-Writing Strategies to

Overcome Reluctance. Final Report of the Queens Park Lower School – University of Bedfordshire Partnership.

Goltry.S.(2011). Ausubel, Piaget and Vygotsky. Article Directory. Retrieved Nov11, 2011, from http://www.centrorisorse.org/ausubel-piaget-and-vygotsky.html

Graham,S. (1999). Handwriting and spelling instruction for students with learning disabilities: A review. *Learning Disability Quarterly*, 22(2), 78-98.

Graham, S., & Perin, D. (2007). *Writing next: Effective strategies to improve the writing of adolescents in middle and high schools – A report to Carnegie Corporation of New york.* Washington, DC: Alliance for Excellent Education

Haneda, M., & Wells, G. (2000). Writing in the Knowledge Building Communities. *Research in the Teaching for English*, 43, 430-457.

Harrell, M. (2008). Argument Diagramming and Critical Thinking in Introductory Philosophy. *Department of Philosophy.* Paper 357.

Hill, R. (1994). Concept Mapping, Graphic Organizing and Structuring: Visual Techniques for Functional Concept-Centered Reading Comprehension. *Education*, 115 (1), 26-30.

Hillocks, G., Jr. (1986). *Research on Written Composition: New directions for teaching.* Urbana, IL: ERIC Clearinghouse on Reading and Communication Skills and National Conference on Research in English.

Hogue, A.1996. *First Steps in Academic Writing*. Addison-Wesley Longman Publishing Company.

Hopkins, C. (2002). Improving Tenth- Grade Students 'Five Paragraph Essay Writing Skills Using Various Writing Strategies, Guided Assignments , and Portfolios For Growth., *ERIC*. 1-36.

Huitt, W., & Hummel, J. (2003). Piaget's Theory of Cognitive Development. *Educational Psychology Interactive*. Valdosta, GA: Valdosta State University.

Instruction at FSU Handbook: A Guide to Teaching and Learning Practices. (2011). 6th ed. Florida State University: Centre for Teaching and Learning. Pp.75-102.

Isaacson, S. (1996). Simple Ways to Assess the Writing Skills of Students with Learning Disabilities. The World's Leading Website on Learning Disabilities and ADHD.

Isaacson, S., & Gleason, M.M. (1997). Mechanical obstacles to writing: What can teachers do to help students with learning problems? *Learning Disabilities Research & Practice, 12(3),* 188-194.

Ivie, S. D.(1998). Ausubel's Learning Theory: An Approach To Teaching Higher Order Thinking Skills. *High School Journal*, 82(1), 35-43.

Jonsson, A., & Svingby, G. (2007). The use of scoring rubrics: Reliability, validity and educational consequences. *Educational Research Review*, 2 (2), 130-144.

Kaminski, R, Lazer, M & Bean, R.(1993). Students' Ability to Apply and Reflect on Organizational Structures Used in Composing. *Eric*. 1-15.

Katherine C. & Cody J. (2009). Cognitive and Social Constructivism: Developing Tools for an I Effective Classroom. 130(2). 241-250.

Kinchin, l. (1998). Constructivism in the classroom: mapping your way through. School of Educational Studies, University of Surrey, Guildford, Surrey GU2 5XH, UK. Paper presented at the British Council Research Associations. Annual Research Student Conference. The Queeen's University of Belfast.

Laflamme, J. (1997). The Effect of the Multiple Exposure Vocabulary Method And The Target Reading/ Writing Strategies On Test scores. *Journal of Adolescent & Adult Literacy*. 40 (5), 372-381.

Langer, J. and S. Flihan. 2000. Writing and Reading Relationships: Constructive Tasks. In *Writing: Research/Theory/Practice.* Roselmina Indrisano and James R. Squire (Eds.), Newark, DE: International Reading Association.

Lanzing, J. (1997). The Concept Mapping Homepage. Retrieved Oct 23, 2011, from http://users.edte.utwente.nl/lanzing/cm_home.htm=4&sid=47699091696147

Leahy, R. (1989). Concept Mapping: Developing Guides to Literature. College Teaching.2 (37). 62-69.

Lee, Y. (2010). *Concept mapping strategy to facilitate foreign language writing: A Korean application*. A Dissertation. Doctor of Philosophy Syracuse University Library. 229.

Lin, Shu-Yuan. (2003). *The Effect of Computer-based Concept Mapping as a Prewriting Strategy on the Persuasive Writing of Eight-Grades at Middle School in Southern Idaho*. Doctor of Education in Educational Leadership Emphasis: Educational Technology in the College of Education Idaho State University (UMI Microform 3099996). Pro Quest Dissertations and Theses. Pg n/a.

Mancinelli, Cesarina; Gentili, Marina; Priori, Giuseppina; & Valitutti, Giuseppe. (2004). Concept maps in kindergarten. In Alberto J. Cañas, Joseph D. Novak, & Fermín M. Gonzalez (Eds.), *Proceedings of the 1st International Conference on Concept Mapping.* Pamplona, Spain: Universidad Pública de Navarra.

Manning, M. (1999). Teaching Reading and Writing: Helping Words Grow. Teaching Pre K-8; 29 (4), 103-106.

Mayor, R. (1996). Learners as Information Processors: Legacies and Limitations of Education Psychology's Second Metaphor. *Educational Psychologist.* Lawrence Elbaum Associates, 31(3/4), 151-161.

McAndrew, D. (1990). Handwriting Rate and Syntactic Fluency. *Journal of Basic Writing*. 9(1): 31-39.

McMillan, J.H. (2000). *Educational research: Fundamentals for the consumer*

(3rd ed.). New York: Addison Wesley Longman.

Medwell, J. & Wray, D. (2008). Handwriting - a forgotten language skill? *Language and Education, 22* (1), 34 – 47

Meng S. Wong, J., & Dras, M. (2009). Contrastive Analysis and Native Language Identification. In *Proceedings of the Australasian Language Technology Association Workshop*, Sydney, Australia, 53–61.

Meyer, D. (1995). The Effects of Graphic Organizers on the Creative Writing of Third Grade Students. A Master's Thesis. Union, NJ: Master of Art Project, Kean College of New Jersey. 46 pp.

Miles, J.(1979). Working Out Ideas: Predication and Other Uses of Language. Curriculum Publication (5). Berkley: University of California.

Mintez, J, Wandersee, J & Novak, D. (Eds.). (2005). Teaching Science for Understanding: A Human Constructivist View. Reform and Innovation in Science Teaching: A Human Constructivist View. Academic Press Educational Psychology (Series). 29- 58.

Mintzes, J. & J. Wandersee (1998). Reform and Innovation in science teaching: A Human Constructivist View. In: Mintzes, J.J., J.H. Wandersee and J.D. Novak (Eds.) *Teaching Science for Understanding: A Human Constructivist View.* San Diego, Academic Press. 29 – 58

Mourtaga, K. (2010). Poor Writing in English: A Case of the Palestinian EFL learners in Gaza Strip. Islamic University of Gaza (IUG).Gaza, Palestine.

Mueller, J. (2011). Authentic Assessment Toolbox. North Central College. Retrieved June 14, 2012 from http://jfmueller.faculty.noctrl.edu/toolbox/whatisit.htm

Muncie, J. (2002). Finding a Place for Grammar in EFL Composition Classes. *English Language Teachers Journal*, 56 (2), 180-186.

National Council of Teachers of English (NCTE). (2008). A Policy Research Brief 1: Writing Now. University of Michigan. Urbana, Illinois.

Negari, G.M. (2011). A Study on Strategy Instruction and EFL Learners' Skill. *International Journal of English Linguistics*. 1(2).

Neman, B. (1980). *Teaching Students to Write.* A Bell &Howell Company: Columbus, Ohio.

Nierenberg, J. (2009). How to Become a Writer: Beginners Improve By Learning and Practicing the Writing Process.

Novak. J. D. (1990). Helping Students How to Learn: A View From A Teacher-Researcher [1]. Ithaca, NY: Cornell University.

Novak, J. (2002). Meaningful learning: The essential factor for conceptual change in limited or Inappropriate propositional hierarchies (lIPHs) leading to empowerment of learners. *ScienceEducation*, *86*(4), 548-571.

Novak, J. D. (2010). Learning, Creating, and Using Knowledge: Concept maps as facilitative tools in schools and corporations. *Journal of e-Learning and Knowledge Society*, 6 (3), 21 –30.

Novak, J.D. & Gowin, D.B. (1984). Learning How to Learn. New York, Cambridge University Press

Novak, J. & Canas. (2006). The Origins of the Concept Mapping Tool and the Continuing Evolution of the Tool. *Information Visualization Journal*, 5 (3). 175-184.

Novak J. D. & Cañas A. J. (2006). *The Theory Underlying Concept Maps and How to Construct them (Technical Report No. IHMC CmapTools 2006-01)*. Pensacola, FL: Institute for Human and Machine Cognition.

Novak ,J. D, & Canas, A. J. (2008). Psychological Foundations of Human Learning. Institute for Human and Machine Cognition.

Novak, J. & Musonda, D. (1991). A Twelve Year-Longitudinal Study of Science Concept Learning. *American Educational Research Journal*. 28. 117-153

NSW State Literacy and Numeracy Plan.(2007). *'Writing and Spelling Strategies: Assisting Students who have additional learning support needs'* Schools NSW.

Ojima, M., (2006). Concept mapping as pre-task planning: A case study of three Japanese ESL writers, System. 34(4), 566-585.

Olive, T. (2004). Working memory in writing: Empirical evidence from the dual-task technique. *European Psychologist, 9,* 32–42.

Ministry of Education and Training. (2003). *A Guide to Effective Instruction in Reading, Kindergarten to Grade 3, Ontario Early Reading Strategy*. Toronto: Queens Printer for Ontario.

Pajares, F., Hartley, J., & Valiante, G. (2000, April). Response format in writing self-efficacy assessment: Greater discrimination increases prediction. *Paper presented at the meeting of the American Educational Research Association, New Orleans.*

Pishghadam, R. & Ghanizadeh, A. (2006). On the Impact of Concept Mapping as a Prewriting Activity on EFL Learners' Writing Ability. IJAL. 9 (2). 34-45

Prater, D. L., & Terry, C. A. (1988). Effects of mapping strategies on reading comprehension and writing performance. *Reading Psychology, 9*(2), 101-120.

Rao, Z. (2007). Training in brainstorming and developing writing skills. *English Language Teaching Journal*. 61(2). 100-106.

Reutzel, D.R. (1986). Investigating a synthesized Comprehension Instructional Strategy: The Cloze Story Map. *Journal of Educational Research*. 79(6), 343-349.

Rice, M. (2009). Making Connections: Reading Comprehension Skills and Strategies. Educators Publishing Service.

Robinson, D. & Kiewra, K.A. (1995). Visual Argument: Graphic Organizers Are Superior to Outlines in Improving Learning From Text. *Journal Of Educational Psychology*. 87(3).455-467.

Roca de Larios, J. R., Murphy, L., & Manchon, R. (1999). The use of restructuring strategies in EFL writing: A study of Spanish learners of English as a foreign language. *Journal of Second Language Writing, 8,* 13–44.

Saadati, Z. (2011). The impact of fill-in-the-map and construct-a-map techniques on EFL learners' use of tenses in oral accuracy. *European Journal of Social Sciences, 22*(2), 299-308.

Schultz, J. (1991). Mapping and Cognitive Development in the Teaching of Foreign Language Writing. *The French Review.* American Association of Teachers of French. 64(6) .978-988.

Schunk, D.H. (2012). Learning *Theories: An Educational Perspective* (6th ed.). Boston, Pearson Education Inc.

Sharrock, T. (2008). The Effect of Graphic Organizers on Students' Writing. Action Research. Kennesaw State University, US. 1-22.

Shin, S. (2003). The Reflective L2 Writing teacher. *ELT Journal*. Oxford University Press.57 (1). 3-10.

Shin, Y. (2008). The Effects of Planning on L2 Writing: a Study of Korean Learners of English as a Foreign Language. Unpublished Ph. D. dissertation, University of Iowa.

Silva, T. (1993). Toward an understanding of the distinct nature of L2 writing; The ESL research and its implications. *TESOL Quarterly, 27*, 657-677.

Smith, Theodore R., Ed.(1982). Handbook for Planning an Effective Writing Program Kindergarten through Grade Twelve. *California state Dept. of Education, Sacramento. ERIC.*

Staley, J.W.(2001). Ways of Knowing: Concept Mapping. George Mason University Educ 800: Professor Norton.

Stoica, I. Moraru ,S & Miron, C. (2011). Concept Maps, A Must for The Modern Teaching-Learning Process. *Romanian Reports in Physics*, 63(2), 567–576.

Sturm, J.M., & Rankin-Erickson, J.L. (2002). Effects of Hand-drawn and computer – generated CM on the Expository writing of middle school

students with Learning Disabilities. *Learning Disabilities Research &Practice*, 17(2). 124-139

Sunseri, A. B. (2011). *The Impact of Thinking Maps On Elementary Students: Expository Texts.* (Doctoral dissertation, San Francisco State University. San Francisco, California. (UMI No.3461366).

Talebinezhad, M. & Negari, G. (2009). The Effect of Explicit Teaching of Concept Mapping in Expository Writing on EFL Students' Self-regulation. 49. *Special Issue English*, English Pazhuhesh-e Zabanha-ye Khareji. Iran. 85-108. *The Bumper Guide to Writing.* (2006). The University of Hull. (Pp.1-36).

The Writing Process: An Overview of Research on Teaching Writing as a Process. (2007). The Research & Evaluation department of Kamehameha Schools, Honolulu, Hawai'i.

Tobin, K., & Tippins, D. (1993). Constructivism as a Referent for Teaching and Learning. Tobin, K. (ed.). *The Practice of Constructivism in Science Education.* Lawrence Erlbaum Associates Inc. Hillsdsale NJ, Lawrence Erlbaum Associates, Inc.

Trowbridge, J. E. & Wandersee, J. H. (1998). Theory-driven graphic organizers in J. J. Mintzes, J. H. Wandersee, and J. D. Novak (Eds.), *Teaching science for understanding.* Academic Press

Tümen, S. & Taspinar, M. (2007). *The effects of concept mapping on students´ achievements in language teaching*. Salim Hazardaglt Primary School, Elazz/, Gazi Universitl., Turkey.

Vaughan S, Bos C, Schumm J. (2010). Semantic Maps. (2003). Excerpt from *Teaching Exceptional, Diverse, and At-Risk Students in the General Education Classroom.* 5th, USA. Hillsdale, ed.p. 440-1.

Villalon, J. & Calvo, R. A. (2011). Concept maps as cognitive visualizations of writing assignments. *Journal of Educational Technology & Society*, 14 (3), 16-27.

Walker, R & Rı´u C. (2008). Coherence in the Assessment of Writing Skills. *ELT Journal*. 62(1). Uk, Oxford University Press. 18-21.

Wan_Mohamed, W. A. & Omar, B.(2008). Using Concept Map to Facilitate Writing Assignment. Batu Pahat, Johor, Malaysia. Universiti Tun Hussein Onn Malaysia. *Proceedings. of the Third Int. Conference on Concept Mapping.*

Wong, S. & Dras, M. (2009). Contrastive Analysis and Native Language Identification. In Proceedings of the Australasian Language Technology Association Workshop, Sydney, Australia, 53–61.

Wright, Jim. (1992). Curriculum-Based Measurement: Directions for Administering and Scoring CBM Probes in…Oral Reading Fluency, Excerpt fro *Curriculum Based Measurement Manual for Teachers, Jim Wright, School Psychologist.* New York: Syracuse City Schools.

Xiao, Y. (2008). Building Formal Schemata with ESL Student Writers: Linking Schema Theory to Contrastive Rethoric. *ASIAN EFL JOURNAL*. 233-274.

Zinsser, W. (1985). *On Writing Well. An Informal Guide To Writing Nonfiction.* Revised and enlarged 3rd Ed. New York, Harper & Row

Zipprich, M.A.(1995). Teaching Web Making As a Guided Planning Tool to Improve Student Narrative Writing. Remedial and Special education,16 (1). 3-15

Appendices

Appendix A

Writing Prompts

(1) Write a short essay about any subject you like or interested in.

(2) Write a five- paragraph argumentative essay about "Health in Palestine". For every paragraph, you should draw a CM with a focus question and a topic sentence. Watch out for cohesion, coherence, and the use of synonyms. Please, avoid repetition. Remember that your essays will be corrected according to the distributed analytical rubric.

(3) Write a five-paragraph argumentative essay titled "Volunteering". Your thesis statement should include three argumentative elements. Five CMs with their focus questions and topic sentences are required. Your papers will be corrected according to the eight-scale analytical rubric.

(4) Write a two-paragraph expository essay about "Malaria". No thesis statement is required. You have only to watch out for the other seven criteria in the rubric you have. You have 20 minutes to finish your essay. Your CMs are read from left to right.

(5) Write e reply informal letter of four paragraphs. Try to benefit from the questions written on the board. These expressions may benefit you: "I'd better explain a bit more about the enclosed photo" or "I would like to explain about the enclosed photo." Please, keep consulting your CMs. Your finished letters will be corrected according to our classroom writing rubric.

(6) Write a four-paragraph argumentative essay titled "Education in Palestine". Try to think of three suitable adjectives to describe education in your country. This will help you reflect your opinion. Try to benefit from the questions as well. They will help you in leading your ideas and supporting your opinions. For every paragraph, you should draw a CM with a focus question and a topic sentence. Watch out for cohesion, coherence, and the use of synonyms. Please, avoid repetition. Remember that your essays will be corrected according to the distributed analytical rubric.

(7) Write a formal letter comprised of three paragraphs. First, you are going to listen to a phone conversation. Based on what you are going to listen to, you have to write the layout of the letter and the three paragraphs. Your letters will be corrected according to the analytical rubric.

(8) Write a four-paragraph argumentative essay about "Globalization: Good or Bad?" Try to think of two elements of argument. Your essays will be corrected according to the classroom rubric.

(9) Write a five- paragraph argumentative essay titled "Human Beings in Groups". Please, think of three groups that are most important to you and explain the reasons behind choosing them. Please end your essay appropriately. Try to benefit from the questions provided to you.

(10) Write a four-paragraph argumentative essay titled "Road Accidents: Problems and Solutions". Please, try to think of two main reasons of causing car accidents on roads. Support your opinions with some examples. Try to benefit from the questions written on the board.

(11) Write a short expository essay about "The Importance of Schools". No questions are provided. You have 40 minutes to finish your essays. Draw your CMs carefully. Your essays will be corrected according to the distributed rubric.

(12) Write an expository paragraph in which you describe "How did Mr. Marner take care of Eppie?" You have two days to finish these descriptive essays with their CMs.

(13) Write an expository descriptive short essay in which you try to answer " In what ways Eppie was naughty?". You have two days to finish your essays. Don't try to copy your sentence from the novel. All should be your own. Draw your CMs carefully.

(14) Based on the discussion raised about the main ideas in this chapter, the difficult diction used and the tense you are supposed to employ, write an expository paragraph in which you describe Eppie's Garden. You have two days to return your essays with their CMs.

(15) You are going to write a four-paragraph argumentative essay titled "The Bermuda Triangle". Use concept mapping to help you map, generate and organize your ideas. Remember that for each paragraph, you will need to draw a concept map. It should be read from the top to the bottom. Besides, most of the arrows should come out of the central concept. You can number them as well. Also, it should have a good Focus Question. Your essay will need a thesis and four topic sentences followed by supportive sentences

and end with the examples. Remember that you have to watch out for spelling, punctuation, sentences structure and grammar. Try to make your sentences short and sweet. This is the rubric that your papers will be corrected according to and these are the correction symbols which you will see some of them on your papers when corrected. I believe that the rubric will supply you with a good feedback so that you can know your level and help you not to repeat the same mistakes next time.

(16) Write a formal letter comprised of three paragraphs to the newspaper in which you state your opinion about "Hosting the next Olympic Games in an Arab city". Decide on your topic sentences, and choose two or three points from the other letters which you read in your textbooks. Besides, you have to add further reasons or examples. Try to benefit from the questions written on the board as well.

(17) Write a compare and contrast short three-paragraph essay titled "The Olympic Games: Ancient and Modern". You have only 40 minutes to finish your essays. Draw your bi-directional CMs carefully. Your essays will be scored according to the rubric you know.

(18) You are going to write a descriptive paragraph. Describe the process of making a salad dish using the passive voice. No thesis statement is needed. Watch out for other criteria you have in your rubric. Remember to use connectors such as first, second and finally. You may also use other connectors as well.

Appendix B. Assessment Rubric

	Analytical Classroom Rubric for Writing				
Please use this rubric to assess your writing tasks. It provides you with feedback on your strengths and areas that need improvement in eight areas of your writing.					
Criteria	Excellent 5 pts	Good 4 points	Almost 3 pts	Needs Work 1-2 pts	Needs Very Hard Work 0 pt
Thesis statement	Easily identifiable, crystal clear connects well with paper title. At the end of the introduction.	Slightly unclear, paper title does not connect as well with thesis or is not located clearly.	May be unclear, paper title and thesis do not connect well. It is in the wrong place.	Difficult to identify at all, has no identifiable thesis or completely incomplete thesis.	Has no thesis.
Organization and form	For each paragraph: There is a topic sentence (which is stated in a complete opening sentence with correct sentence structure), detail sentences in a logical order and a concluding sentence. The ideas are strongly related to the paper title and there is no redundancy. Many appropriate transition signals at appropriate place. As a whole essay: it has interesting and well-developed introduction, body and a conclusion paragraph in the end, related thesis, the order of ideas make sense. It has a correct form.	Paragraph is missing either the topic sentence or concluding sentence. The main topic is stated in an opening sentence, but sentence structure is not clear). One topic sentence is missing. Few ideas are not related to the main topic. Some ideas are repeated .Some appropriate transition at appropriate place. Details are in a logical order. As an essay: the paper has a beginning, middle, and end. Sequencing is logical. Few mistakes in the final form.	Paragraph is missing. Main topic is not clearly stated, but sentence structure is correct. Not all topic sentences are there. Details are in a logical order. Several irrelevant ideas. Many ideas are repeated. Few appropriate transition signals. As an essay: The paper attempts at an introduction&/ or conclusion. Some ideas seem out of order. Many mistakes in form.	Paragraph is missing. Main topic is not clearly stated .Sentences structure is not correct. Most of the topic sentences are not there. The details are not in a logical order. 1-2 appropriate transition signals. Most of the ides are irrelevant to the main topic. There is a lot of repetition. As an essay: There is no real introduction or conclusion. Ideas are put together in a loose fashion a lot of mistakes in form.	No paragraphs. Has no topic sentence. Almost no ideas or the ideas are completely irrelevant to the title of the paper. Transition signals are missing. Almost completely wrong form.

Analytical Classroom Rubric for Writing Continued					
Criteria	Excellent 5 pts	Good 4 points	Almost 3 pts	Needs Work 1-2 pts	Needs Very Hard Work 0 pt
Vocabulary and essays Length	Use new key related words, suitable choice of words for the topic and lively verbs. No repeated words. . It has an excellent length	Use adequate key related words, varies language. Minor repetition of some words. The number of sentences is almost enough.	Attempts to use new key words, goes beyond basic vocab. Few repletion of some words. Many sentences are missing.	Related words/ limited vocabulary. A lot of repetition. . A lot of sentences are missing.	Not related words to the topic. Almost no sentences.
Spelling	There are 0-3 spelling errors.	There are 4- 6 spelling errors.	There are 7-8 spelling errors.	There are more than 8 errors.	Too many spelling errors.
Grammar and Sentence Structure	No errors in agreement and tense. No errors in sentence structure. Many kinds of sentences. No run on sentences,, no comma, splice & fragments.	Few errors in agreement and tense. Some kinds of sentences. Few errors as a result of run on, no comma splice & fragments.	Some errors in agreement and tense. Mostly simple sentences and wrong compound sentences. Some errors as a result of run on, no comma splice & fragments.	Many errors in agreement and tense. All are attempts of writing correct simple sentences. Many errors as a result of run on, no comma splice & fragments.	Too many errors. Hard to identify a single correct sentence
Punctuation	Correct punctuation.	Few errors in punctuation.	Some punctuation errors.	Many punctuation errors.	Almost no punctuation.
Writing process	Students completed all steps in writing process	Students completed most of the steps.	Students completed some steps of writing	Students hardly completed the first step	Students failed to produce the first step.
Handwriting	Neat, easy to read, well formed	Well-formed letters	Mostly legible	Hard to read; not well formed	Impossible to read.

Appendix C

Perceived Usefulness of Concept Mapping Questionnaire

Student's Name: _____ (Optional) Date: _____

Dear student,

This questionnaire aims at finding out your perceptions of learning writing composition by using Concept Mapping. Please read the following statements carefully and assign each item a score that represents your opinion the best. It will take you 15 minutes to complete the questionnaire.

Directions: On a scale from 0 (impossible) to 100 (completely sure), please show how Concept Mapping helped you perform each of the writing tasks below on all the essays that you had to do. You may use any number between 0 and 100.

(Impossible) (Medium) (Sure) (Completely sure)

0 10 20 30 40 50 60 70 80 90 100

_____ 1. Using Concept Mapping helped me write a focused essay.

_____ 2. Using Concept Mapping helped me use details to support my ideas.

___ 3. Using Concept Mapping activated my vocabulary.

_____ 4. Using Concept Mapping helped me correctly spell all words in the essay.

_____ 5. Using Concept Mapping helped me write well-constructed sentences in the essay.

_____ 6. Using Concept Mapping helped me correctly use punctuation in the essay.

_____ 7. Concept Mapping helped me remember my thoughts.

_____ 8. Concept Mapping helped me relate what I already know with the new knowledge that I learned.

_____ 9. Using Concept Mapping is better than brainstorming alone.

_____ 10. I liked using Concept Mapping as a pre – writing technique.

_____ 11. I would like my teacher to continue using this technique.

_____ 12. I hope that other teachers will use Concept Mapping.

_____ 13. I found this technique useful.

_____ 14. Concept Mapping made the writing process enjoyable.

_____ 15. I found Concept Mapping boring.

_____ 16. I wish that our teacher will not use Concept Mapping anymore.

_____ 17. I feel that Concept Mapping did not improve my writing ability.

_____ 18. I feel that Concept Mapping helped me like responding to the writing prompt.

_____ 19. Concept Mapping helped me feel confident in my ability to express my thoughts in writing.

_____ 20. Concept Mapping helped me like writing classes.

_____ 21. Concept Mapping helped me not to feel nervous about writing.

_____ 22. I would like to continue using Concept Mapping with the guidance of my teacher.

_____ 23. I could continue using Concept Mapping without the guidance of my teacher.

Appendix D

Samples from the Teacher's Manual

"Teacher-constructed CMs"

Health in Palestine

Many countries have declared war against disease since the last century. Many diseases, such as Malaria, Aids, Polio and TB were common and caused epidemics. However, many health organizations guided large immunization campaigns against these diseases. Fortunately, a lot of these killer diseases if not eradicated, were reduced or under control. Moreover, the new drugs and treatment have helped the situation of health, especially in poor countries to improve. During this century, many countries, such as Palestine, though has some success stories in their medical health care and most Palestinians are fairly healthy, still has some problems that needed to be overcome.

There are some major problems, which we have to look at. These include access to safe, clean drinking water and access to medical help. The quality of drinking water is often dangerously bad. For example, large numbers of tests show that a high percentage of drinking water contains dangerous viruses, and this percentage increased between 2002 and 2003 from 15.8% to 20.4 of tested water. In addition, it is often difficult to get to hospitals quickly, especially in country areas away from cities. For example, it is difficult for country people who live in Beit Reema or the countries near to them to receive quick treatment since they don't have any hospital. Besides, the distance to the nearest city(Ramallah) is far, and they meet an Israeli check point on their way to Ramallah which may delay the arrival of many ambulances and cause the death of a lot of urgent cases.

On the other hand, there are also some big success stories that we should remember. These include disease control and good hospital services. Child immunization levels are high, and Palestine has eradicated Polio. Other major infectious diseases are either known in Palestine or under control. For example, the number of TB cases is approximately 12 per 1000 people per year. Although there are many difficulties, hospital services are good. Moreover, they are growing fast. Between 1999 and 2003, the number of hospitals increased from 54 to 78, the number of doctors went up by more than 40%, and there were 28% more nurses and paramedics.

To conclude, the war against disease led to the death of a lot of diseases in many poor countries including Palestine and led also to population rise and increase of life expectancy as well. Thanks to the improvement of health care, moral education, teaching about hygiene and the invention of many vaccines. Palestinians, who enjoy religious strength of culture, are now on the front who advocate and follow the motto "prevention is better than cure".

Tips for the teacher to lead her/his writing class.

Health in Palestine

We are going to talk about "Health in Palestine". Let's start with the word (health) and put it here in the centre. Then let's fill in these circles around whatever word comes to our minds in relation to this word. We call this brainstorming. Let's also try the word "infectious diseases" and write all words related to it. After that we are going to find the relations between these words. As we know we are going to write a five- paragraph essay. So we will have five main concepts that will follow them more ideas which will be supportive. All will be put in squares, except for the examples will be written below, and the straight arrows will indicate them. We will have a look now at these concept maps, and try to find all the relations and associations between these ideas. Moreover, we will choose suitable verbs to put between the main ideas and the supportive ones. Each map will help us write a well-organized paragraph. These maps will teach us organization since all information is hierarchical. It helps a lot since they function in the same way the brain does. From now on we will use them. They will help you remember well all the vocabulary and information you learnt. Hopefully, afterwards you will become independent learners.

Questions to be asked:

1. What has been the enemy of many countries? And what have these countries done to these enemies?
2. Name some of the common diseases?
3. What did they cause?
4. What have many organizations done?
5. What happened to the fatal diseases?
6. How can we describe the health situation in Palestine?
7. What do some health problems include?
8. What is the first problem?
9. What are the forms of the existing Palestinian water?
10. What does high percentages of viruses in drinking water show?
11. What is the other health problem?
12. Give some examples that explain the lack of access to medical help.
13. Why is it difficult to get easily to hospitals in country areas?
14. What is the result?
15. How can we describe the available doctors?
16. On the other hand, what do success stories in Palestine include?
17. How can we describe child immunization in Palestine?
18. What have the Palestinians eradicated?
19. What has happened to infectious diseases in Palestine?
20. Give examples that show that hospital services in Palestine are good?
21. How can we describe "war against disease" in most poor countries including Palestine?
22. What is a great victory?
23. What are the reasons behind this victory?

Figure2: **The Parking Lot of "Health in Palestine"**

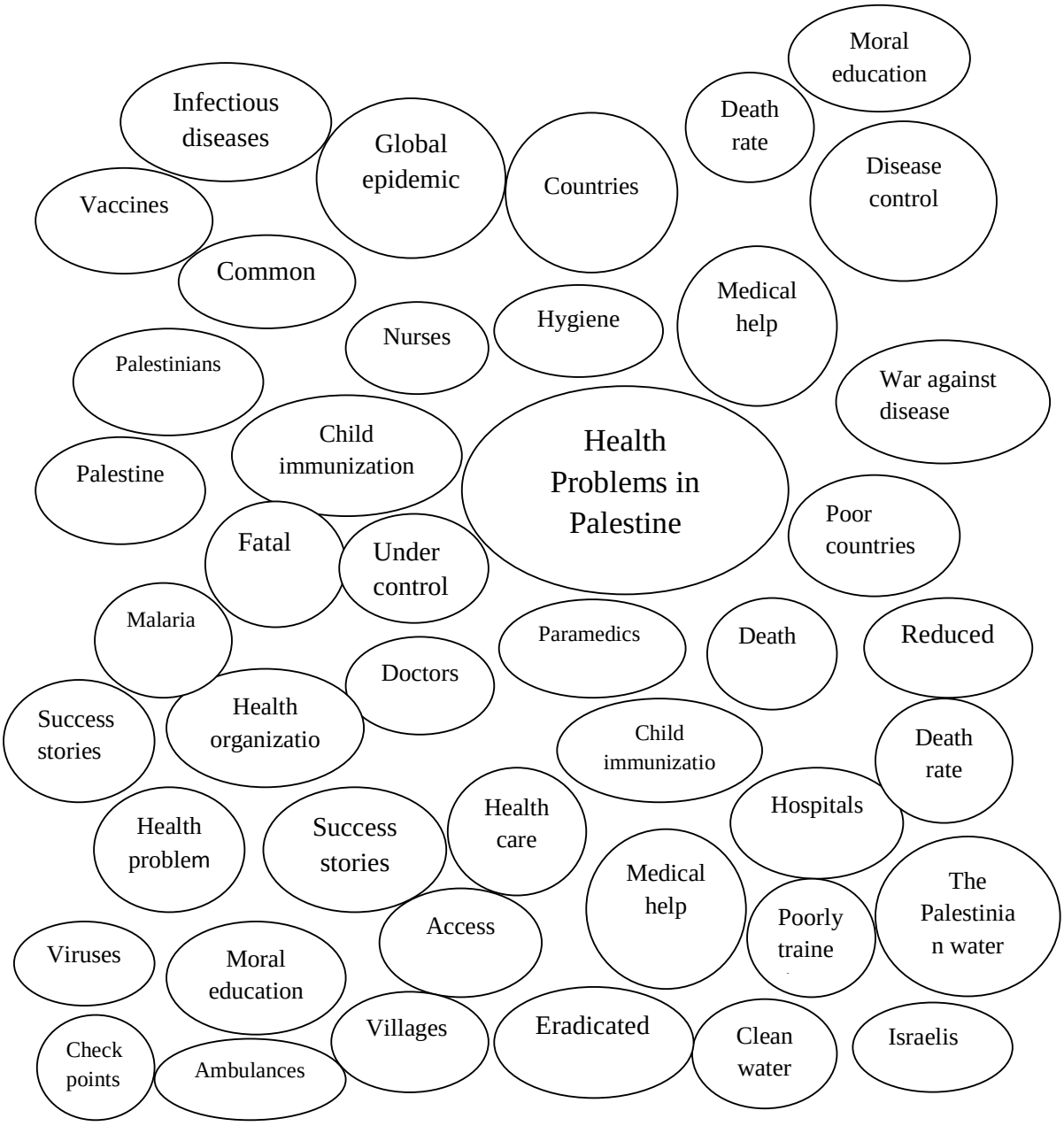


Figure 3: Paragraph #1

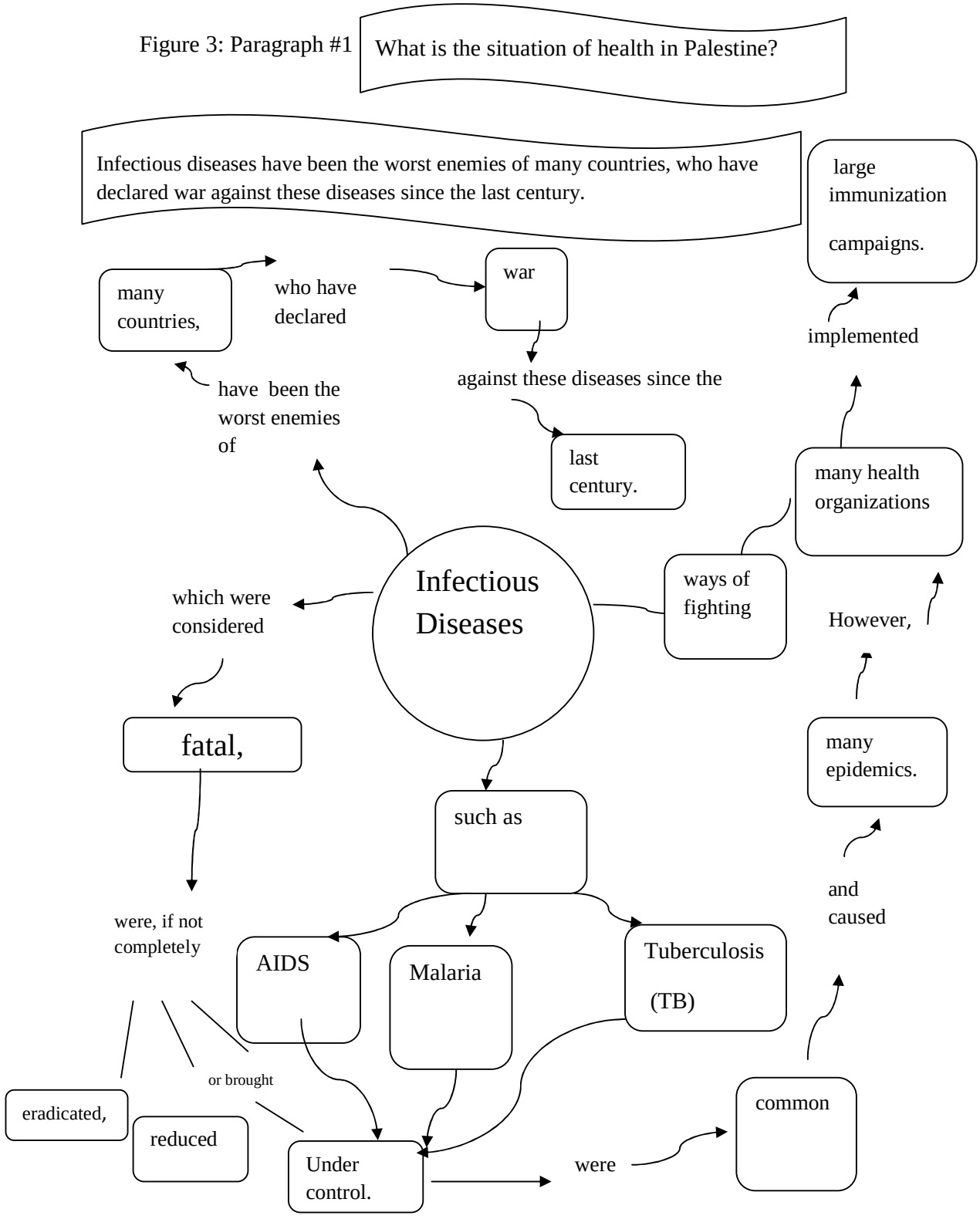


Figure 4:

A Concept Map for the Thesis Statement.

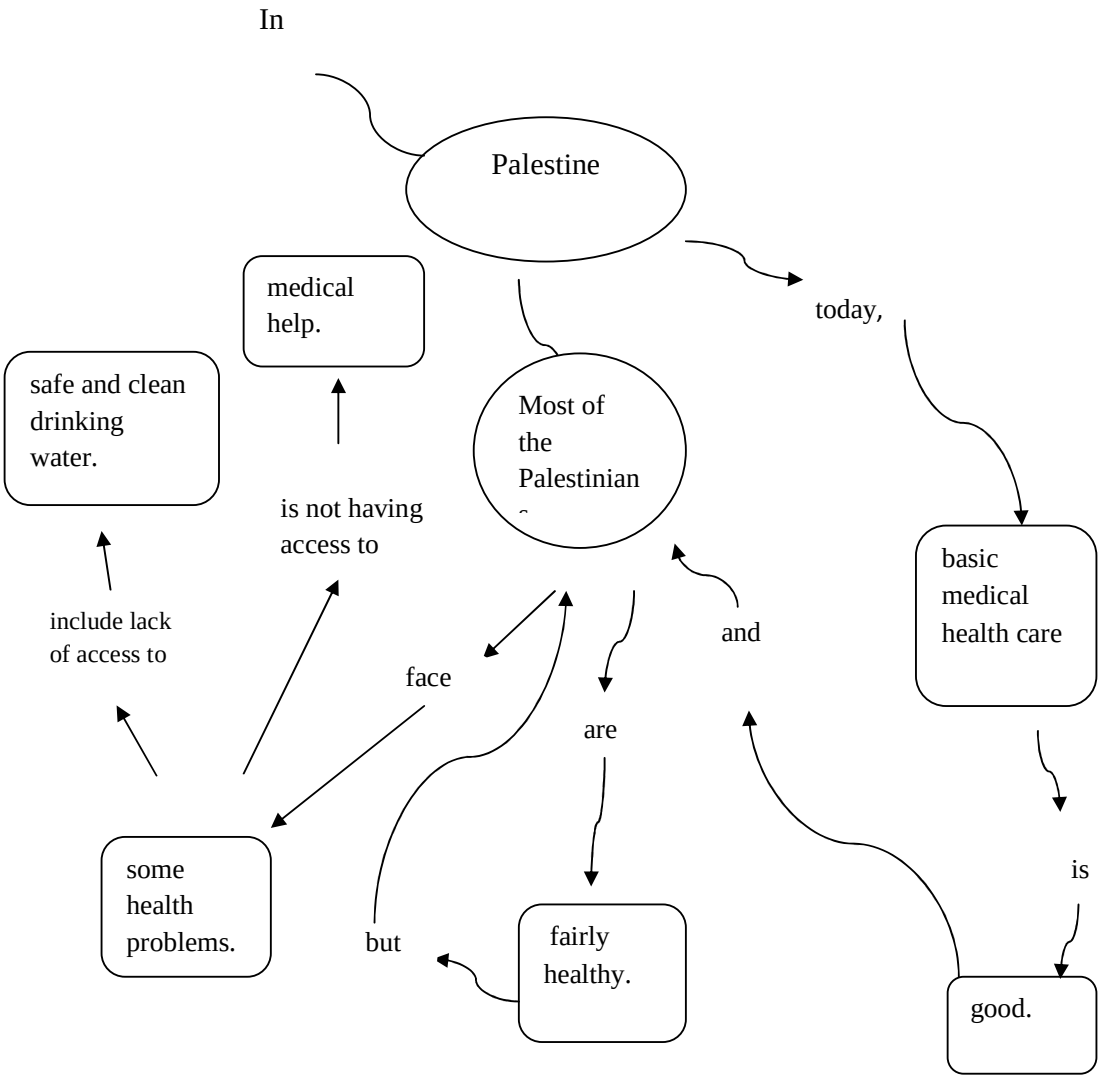


Figure 5: Paragraph #2

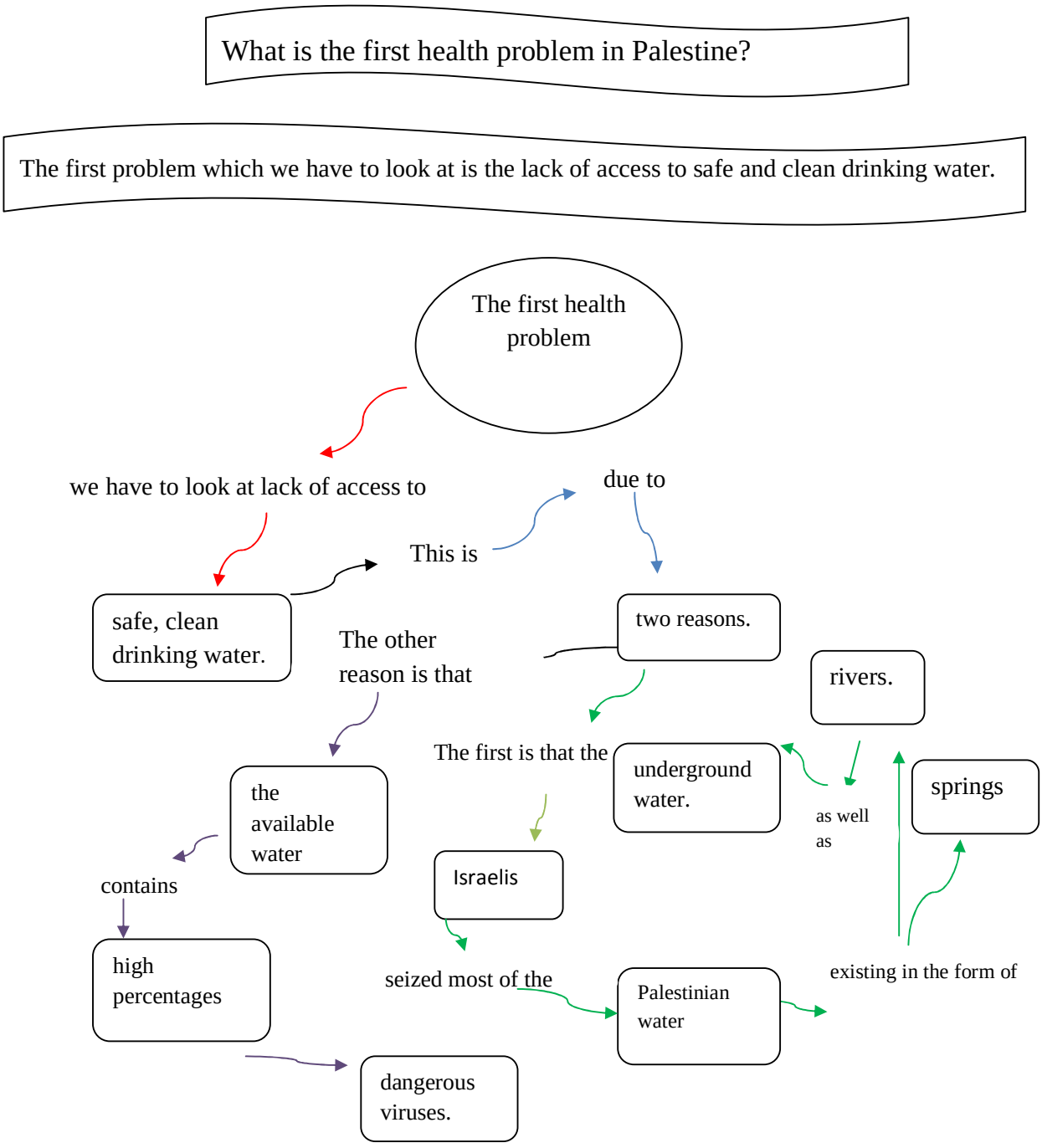


Figure 6: Paragraph #3

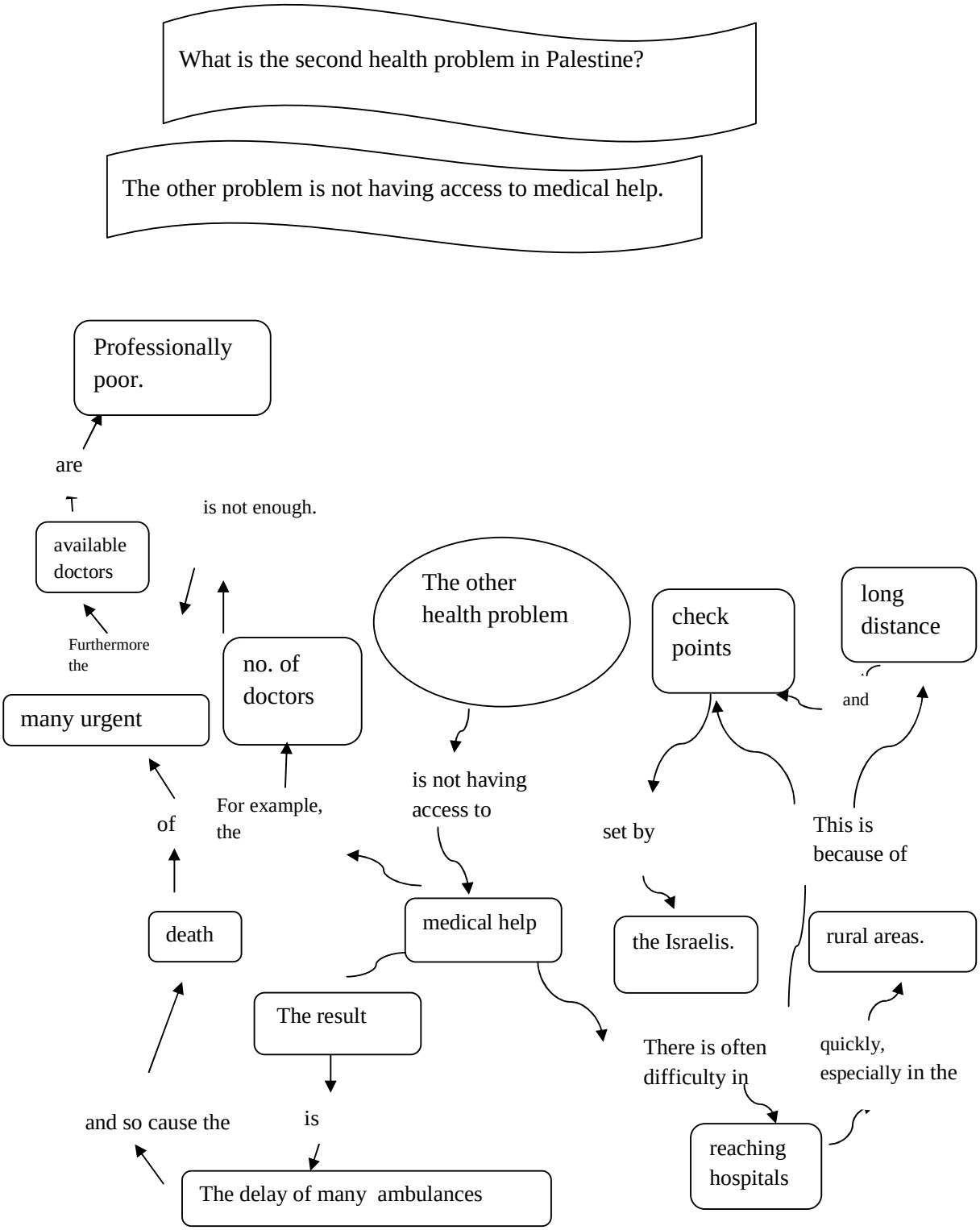


Figure #7: Paragraph #4

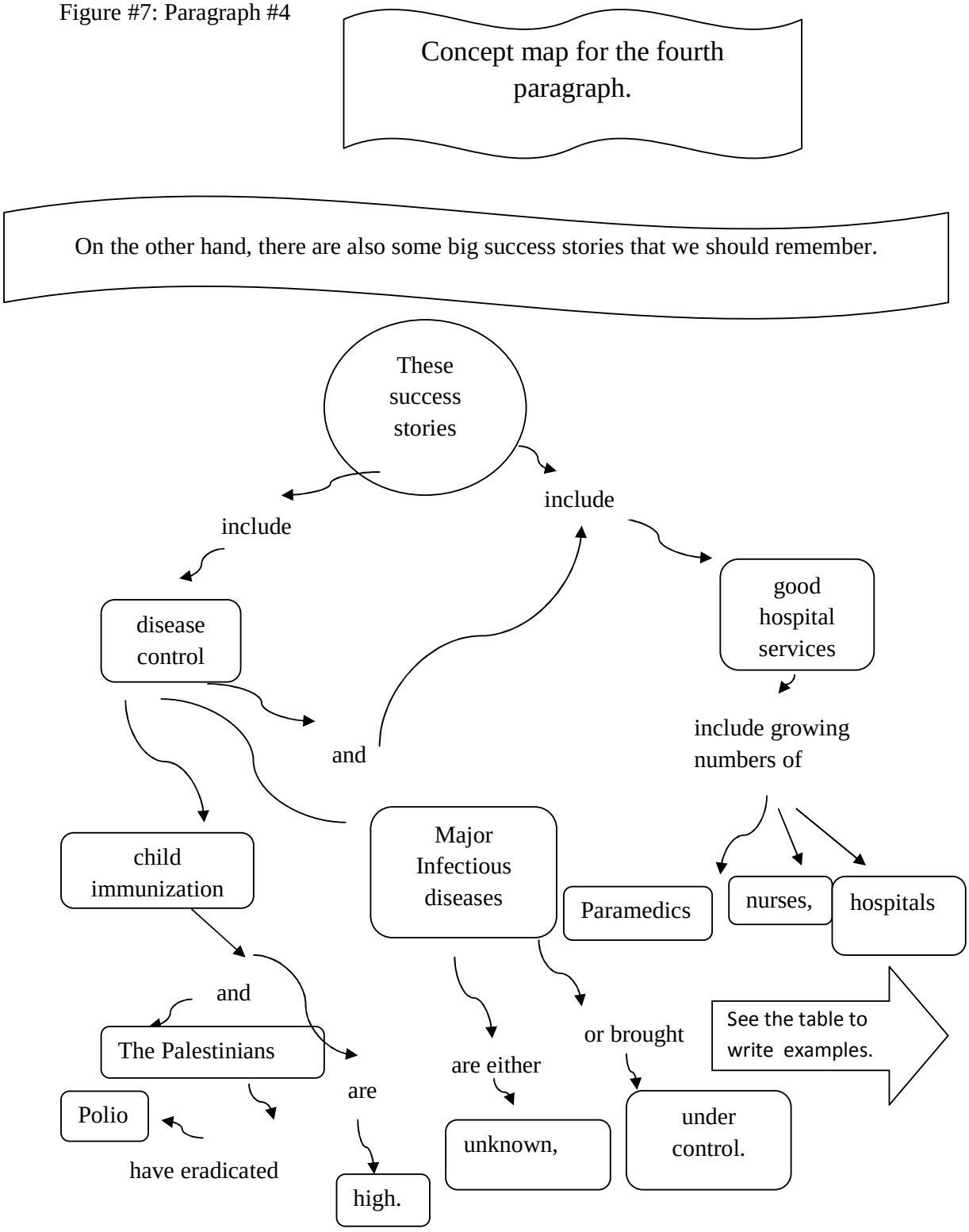


Figure #8: Paragraph 5

Concept map for the fifth “last” paragraph

To conclude, the war against infectious disease is successful in many poor countries including Palestine.

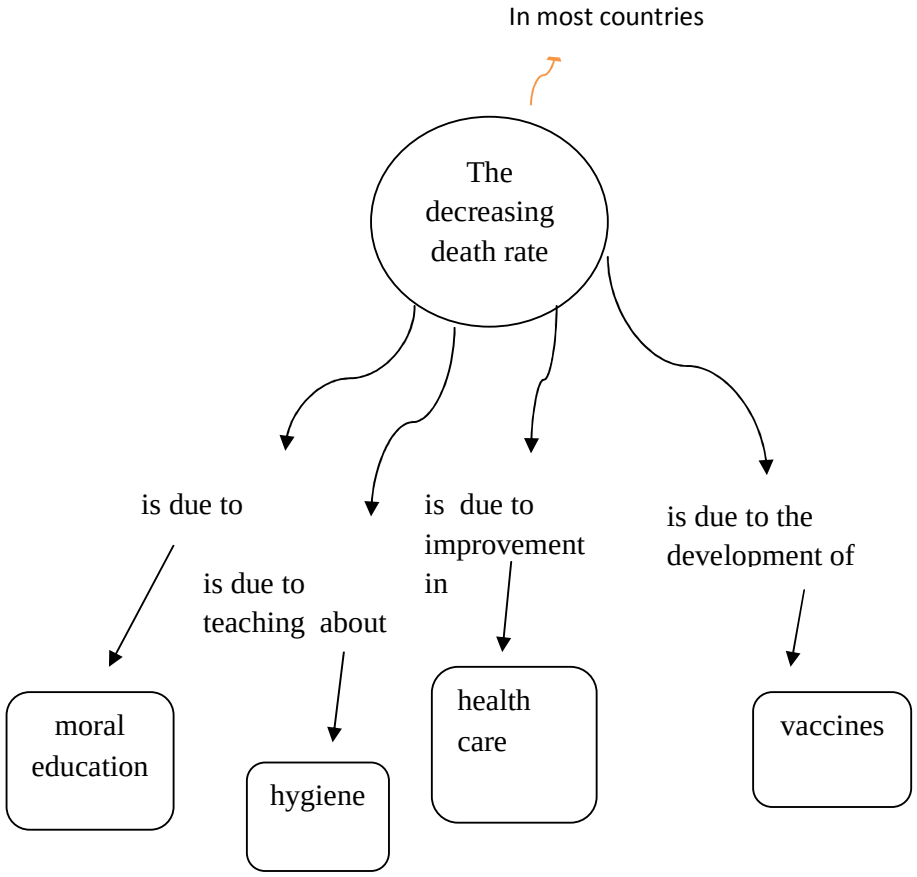
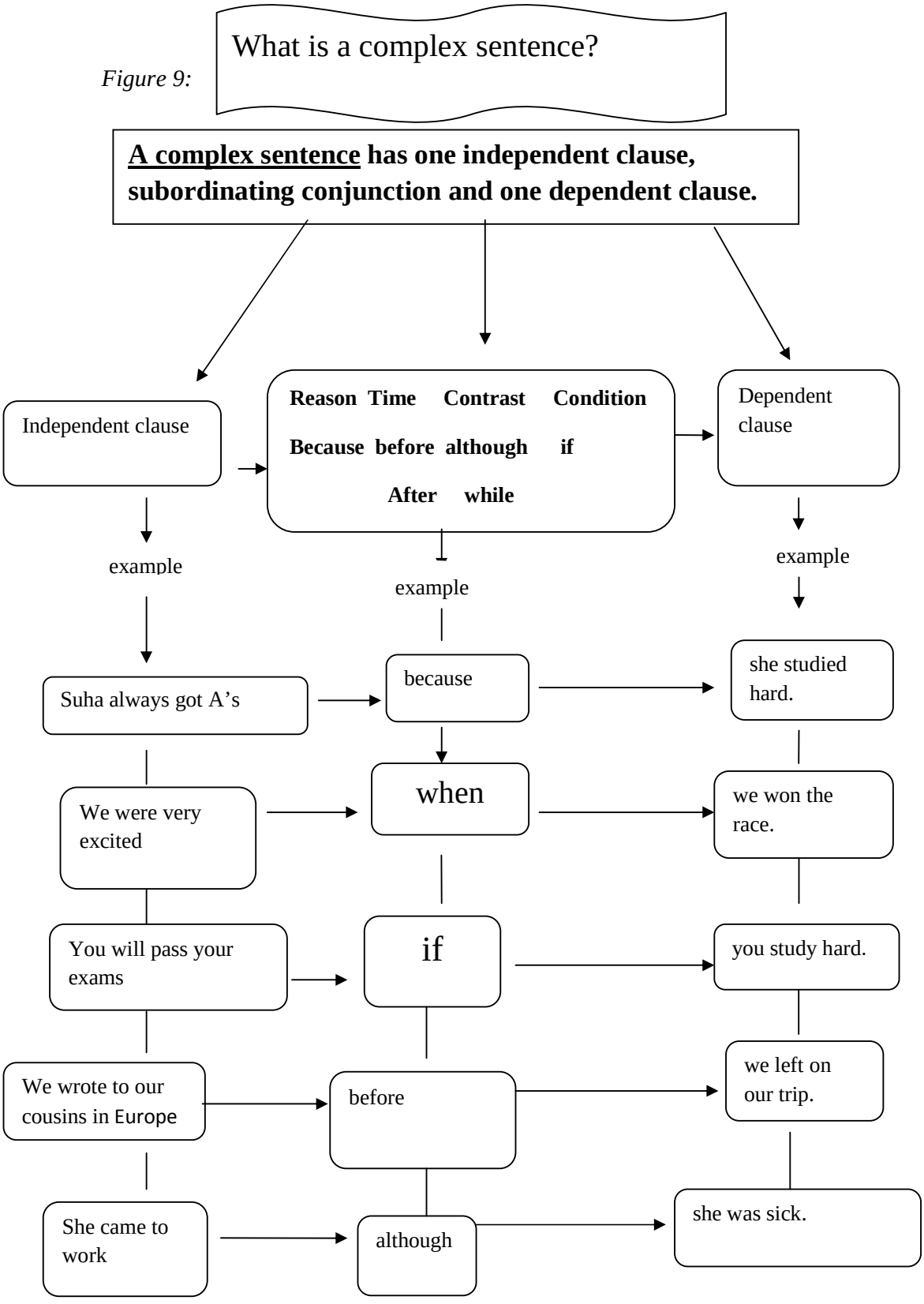


Figure 9:


What is a complex sentence?
A complex sentence has one independent clause, subordinating conjunction and one dependent clause.
Independent clause
Reason Time Contrast Condition
Because before although if
After while
Dependent clause
example
example
example
Suha always got A's
because
she studied hard.
We were very excited
when
we won the race.
You will pass your exams
if
you study hard.
We wrote to our cousins in Europe
before
we left on our trip.
She came to work
although
she was sick.

(Students' school address)

(Today's date)

Mr. Andrew Longman

Young Business International

13 Haywood Road

Oxford OX7 5BJ

UK

Dear Mr. Longman,

Re: New Member Inquiry

We are students at Al Majida Waseela Secondary Girls School in Beirzeit. We are interested in Young Business International (YBI), which we read about in the Daily News.

We would like to join YBI. Would you please send us an information leaflet and an application form?

We look forward to hearing from you.

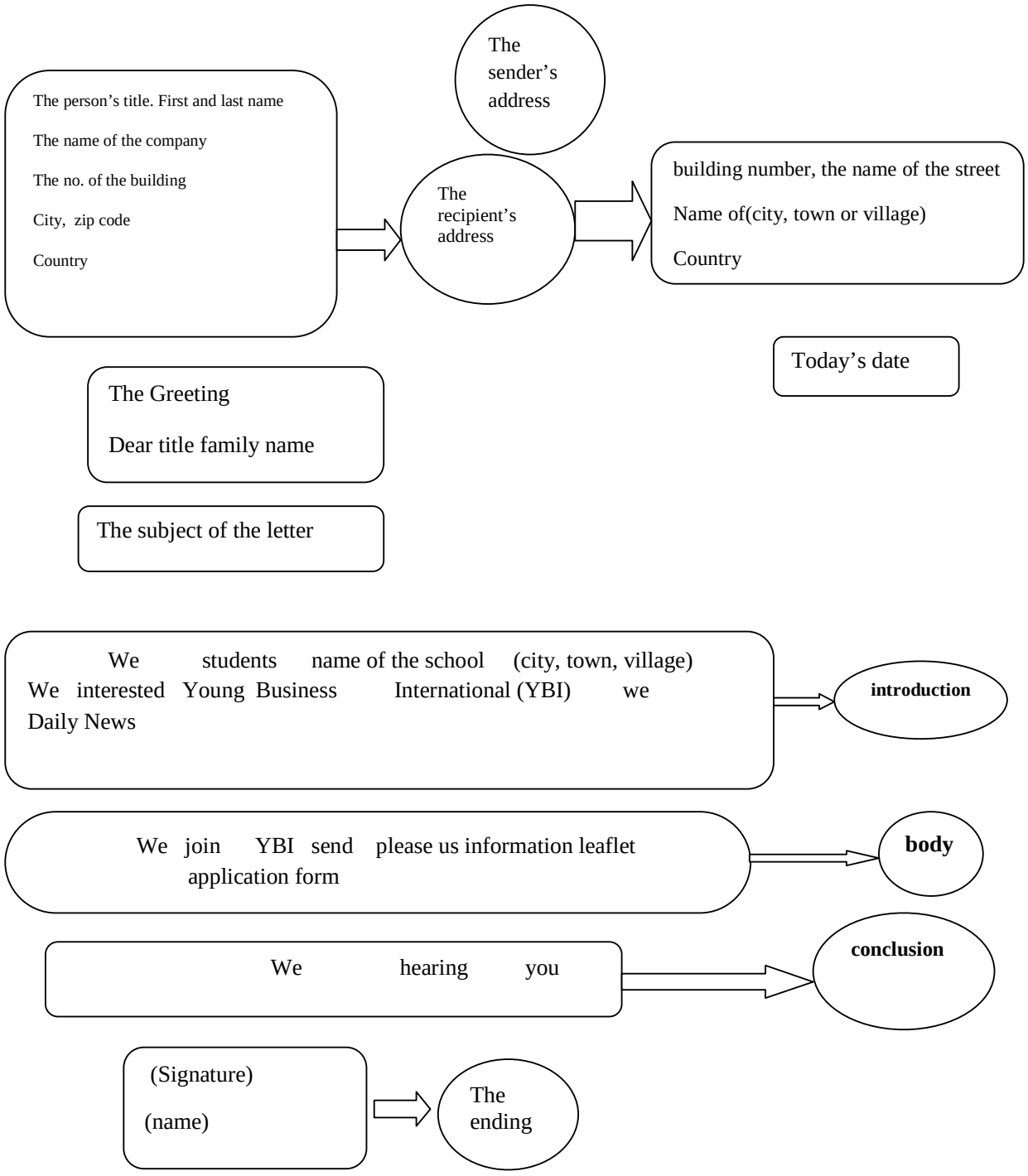
Yours Sincerely,

(signature)

(name)

Figure 10: The Layout for the Formal Letter

Follow the following layout for this business formal letter. Then, map your thoughts. This will be the draft. Please, in a separate sheet of paper write down your final copy. (Note: both sheets of paper are required.)



Writing Related to Literature Classes

Tips for the teacher to follow

1. Describe Godfrey?
2. Describe Dunstan?
3. Why was Godfrey angry?
4. What happened to the 100 pounds?
5. Why did Godfrey lend Dunstan the money?
6. What was Godfrey's secret?
7. What would happen if Mr. Cass knew that Godfrey married a serving girl?
8. Whom was supposed Godfrey to marry? Why couldn't he?
9. What did Dunstan want to do with Godfrey's best horse "Wild Fire"?

Godfrey and Dunstan were the Squire Cass two sons. Godfrey was tall, with fair hair and blue eyes. Dunstan was shorter and heavier. Godfrey was angry because he wanted the one hundred pounds. Yet, Dunstan carelessly spent all the money. Godfrey was forced to give the money to Dunstan in order not to tell his secret to anyone. Indeed. Godfrey was married to a serving girl named Molly Farren and he had a child from her. If his father (the Squire Casss) knew this, he wouldn't forgive him. Dunstan suggested to sell Godfrey's best horse to get the money. Unwillingly, Godfrey agreed. The two brothers, who always quarreled, agreed on this solution.

1- Where did Dunstan take Wildfire?
2- Who bought the horse?
3- What did Dunstan want to do with the horse before bringing it to the farmer's stable?
4- In the hunt, what happened to the horse? Why?
5- What was the only choice Dunstan has now?
6- How was the weather?
7- What did Dunstan find in the Cottage? Where?
8- Was Mr. Marner in his cottage?
9- What did Dunstan do with the two leather bags?
10- What did Mr. Marner do when he discovered that his money had been stolen?

The solution for the problem was to sell "Wildfire". Dunstan took the horse for hunting the next morning. There, a farmer bought the horse for about one hundred and twenty pounds. Yet, Dunstan wanted to ride Wilfire for the last time. Because of Dunstan's fast careless riding and

jumping over a hedge, the horse's neck was broken. Dunstan didn't care as Wildfire wasn't his horse. The only choice left for him was Mr. Marner's golden coins. It was raining and there was a mist. Thus, the ground was slippery. Dunstan found the door Of Mr. Marner's cottage open. Mr. Marner wasn't in his cottage. He stole the money, and he had to hurry up. When he returned to his cottage, Mr. Marner discovered that his money was stolen. He cried and asked for help. He ran to the Rainbow Inn and asked the landlord to call the Squire Cass to find out the thief. The rain had washed out the footsteps. Thus, everybody suggested a stranger came and stole the money. Neither Wildfire's death nor Mr. Marner's stolen money were discovered for 16 years to come.

Figure 11: Writing Related to Literature Classes (1)

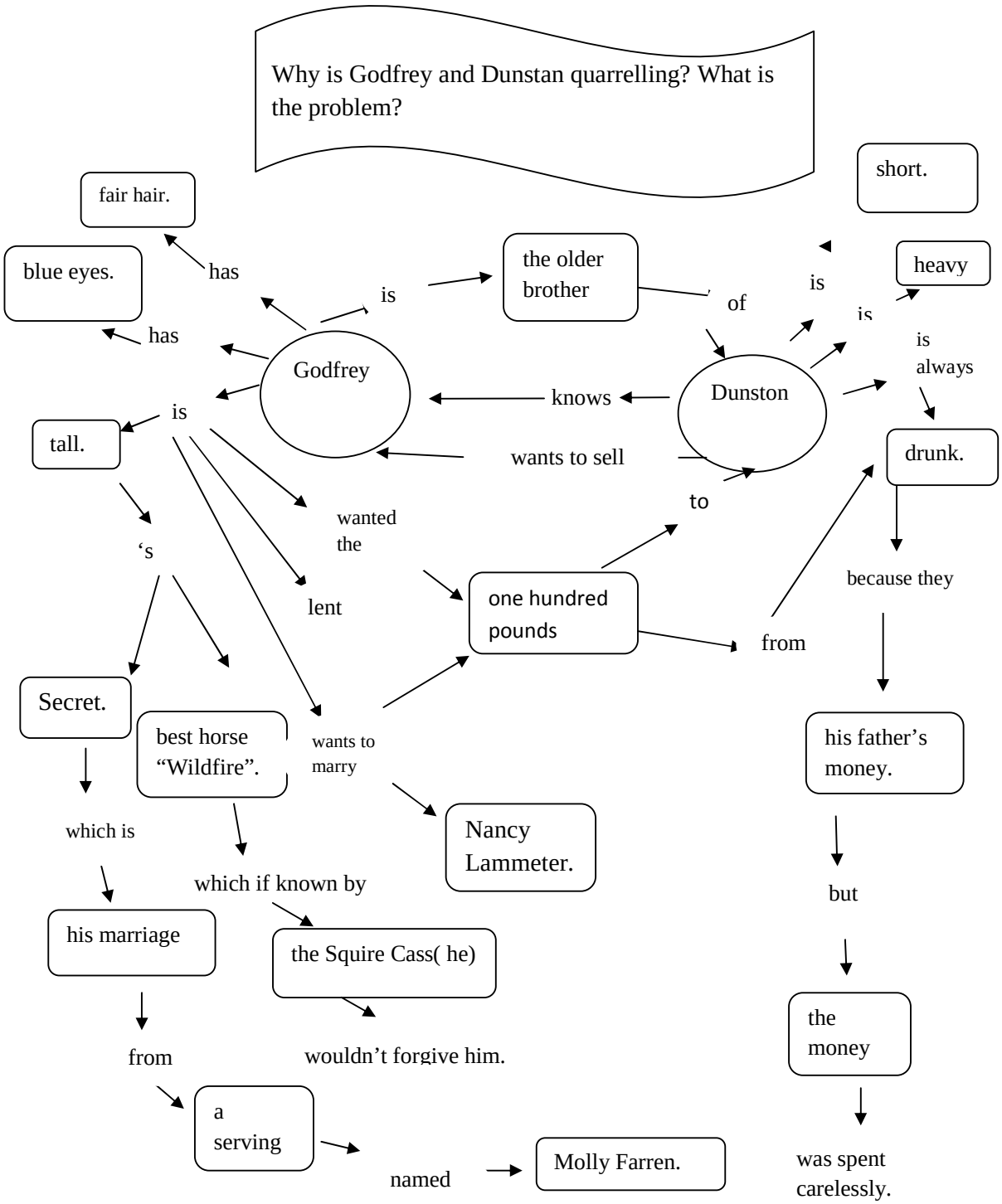


Figure 12: Writing Related to Literature classes (2)

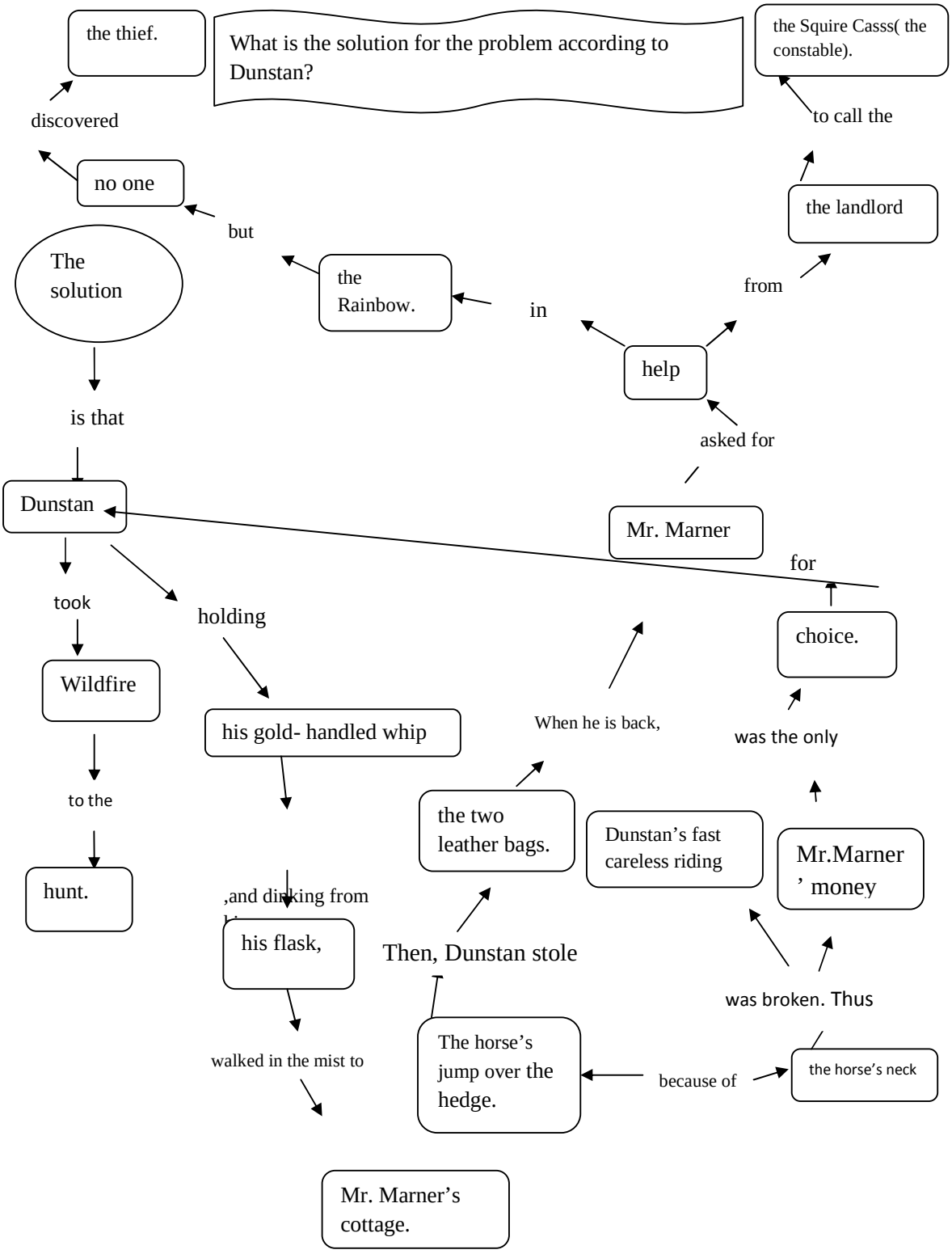


Figure 13: Fill in the Map (1)

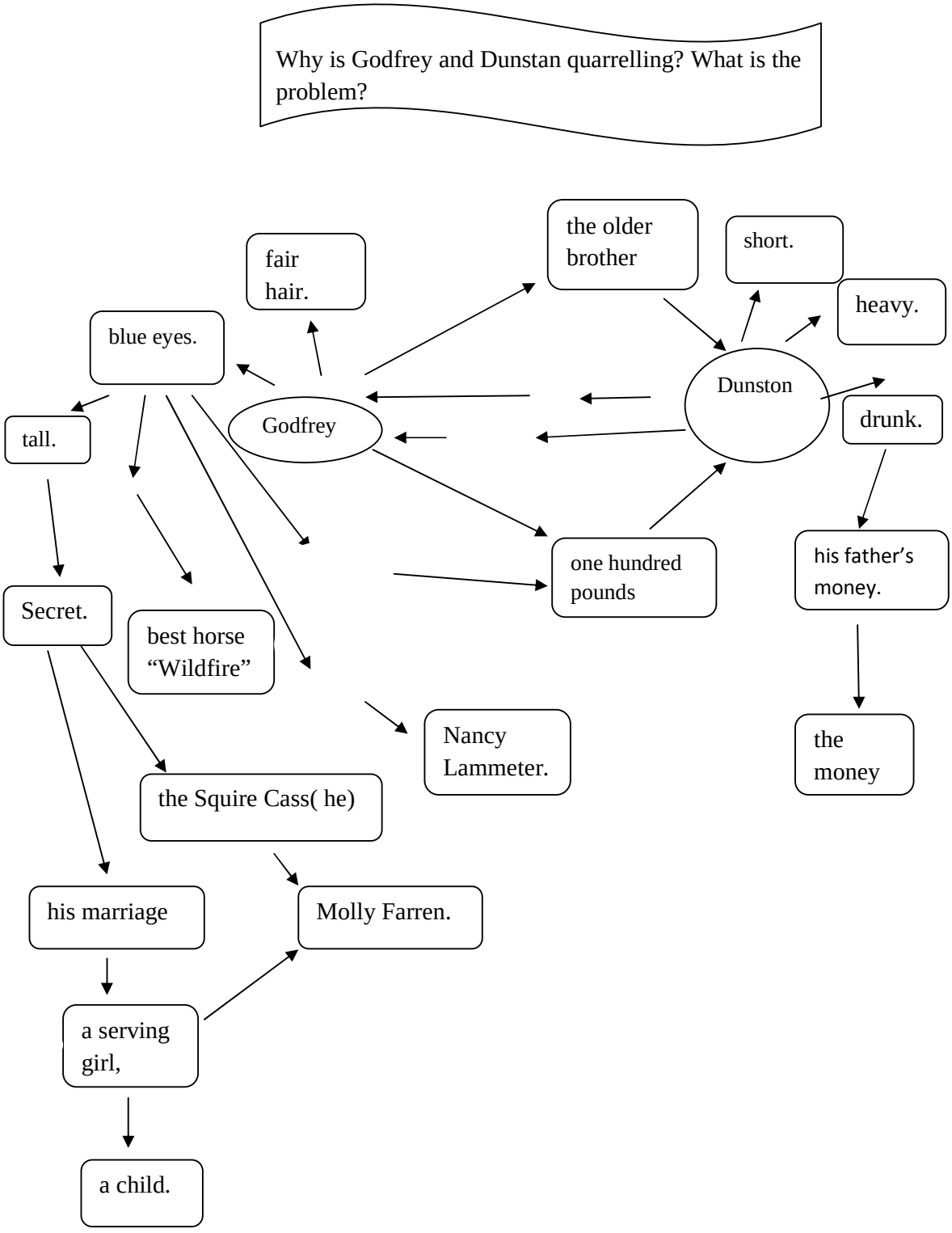
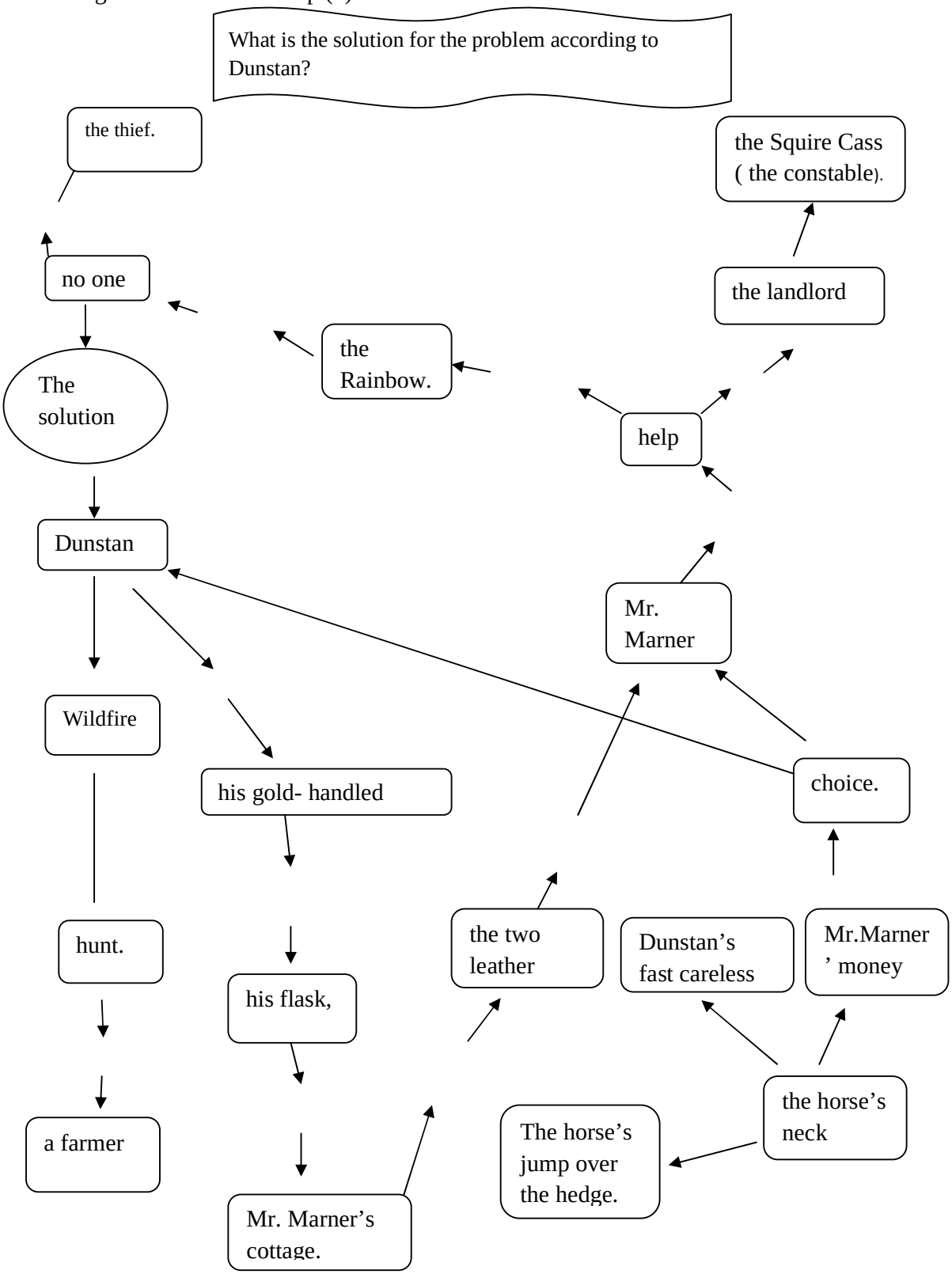


Figure 13: Fill in the map (2)



Appendix E

Tests of Reliability for the Two Raters

Table (12)

Reliability for Teacher # 1 Test-Retest

Reliability Statistics	
Cronbach's Alpha	**N of Items**
.784	8

Table (13)
Reliability Teacher # 2 Test-Retest

Reliability Statistics	
Cronbach's Alpha	**N of Items**
.779	8

Tables (20 & 21) reveal that the two raters' correction of the sample papers is correlated.

Table (14)
Reliability for Teacher # 1 pretest

Reliability Statistics	
Cronbach's Alpha	**N of Items**
.789	8

Table (15)
Reliability for Teacher # 1 post test

Reliability Statistics	
Cronbach's Alpha	**N of Items**
.782	8

Tables (22 & 23) show that the two corrections for the same rater are correlated.

Table (16)
Reliability for Teacher #2 pretest

Reliability Statistics	
Cronbach's Alpha	**N of Items**
.779	8

Table (17)
Reliability for Teacher # 2 post test

Reliability Statistics	
Cronbach's Alpha	**N of Items**
.782	8

Tables (24 & 25) reveal that the second rater's two corrections for the same sample of papers are correlated.

Table (18)
Univariate Analysis of Variance

Between-Subjects Factors			
		Value Label	**N**
teacher	**1**	First	112
	2	Second	112
TEST	**1**	Pre Test	112
	2	Post Test	112

Tests of Between-Subjects Effects Dependent Variable: Total					
Source	**Type III Sum of Squares**	**df**	**Mean Square**	**F**	**Sig.**
Corrected Model	5.786(a)	2	2.893	.322	.725
Intercept	8403.500	1	8403.500	934.796	.000
Teacher	.000	1	.000	.000	1.000
TEST	5.786	1	5.786	.644	.423
Error	1986.714	221	8.990		
Total	10396.000	224			
Corrected Total	1992.500	223			
a R Squared = .003 (Adjusted R Squared = -.006)					

This table shows that there was no significant difference between the two teachers' corrections. In addition, the tables reveal that the test is reliable since

this pretest after repeated after two weeks without any intervention revealed similar writing abilities of students.

Reliability Statistics		
Type	**Cronbach's Alpha**	**No. of Subjects**
1	.906	39
2	.886	39

Table (19)
Reliability for the questionnaire Distributed to the pilot study

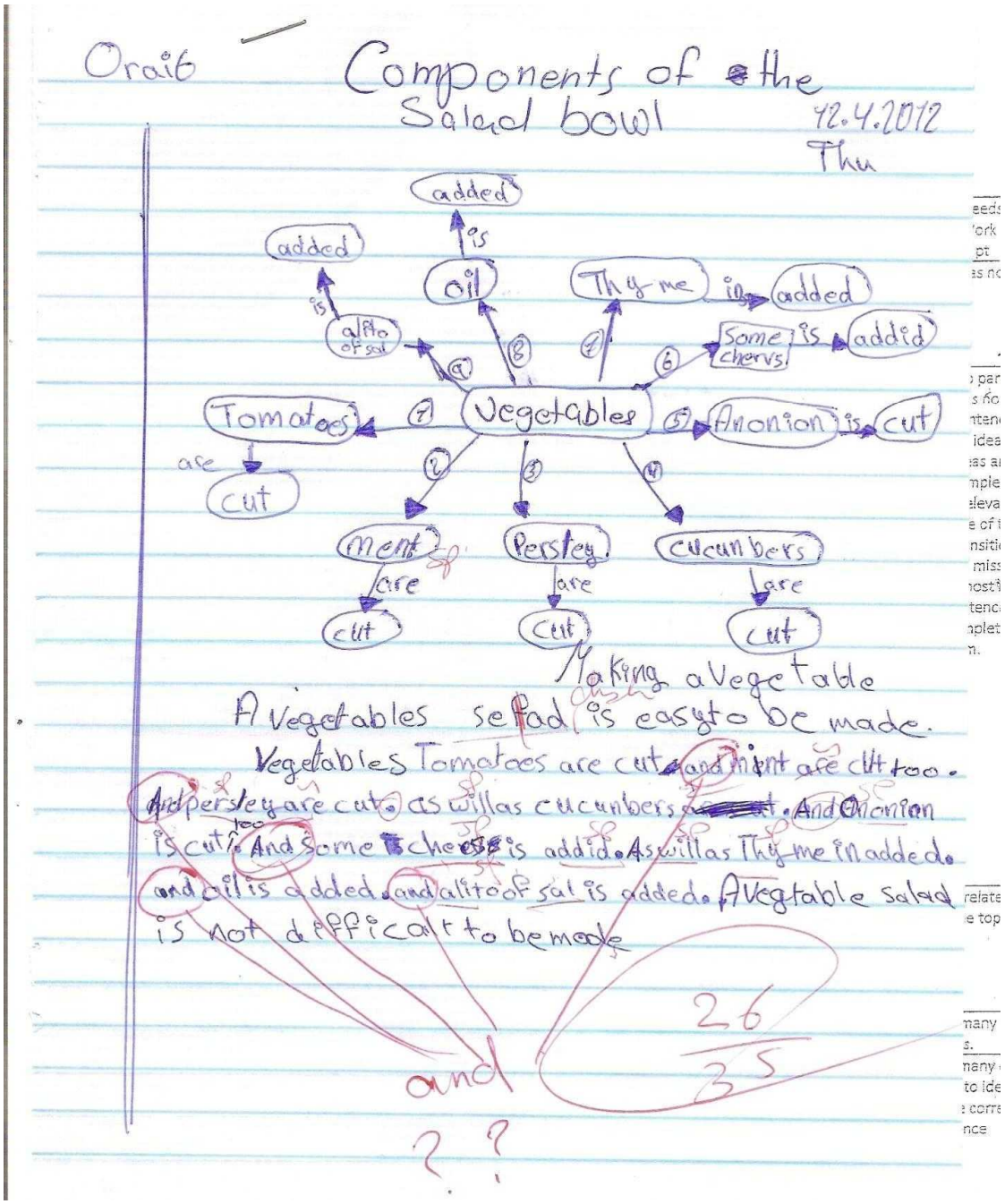
Case Processing Summary				
Type			**No.**	**%**
1	**Cases**	**Valid**	37	100.0
		Excluded(a)	0	.0
		Total	37	100.0
2	**Cases**	**Valid**	38	97.4
		Excluded(a)	1	2.6
		Total	39	100.0
a Listwise deletion based on all variables in the procedure.				

Table (8) shows the reliability for the Evaluation Questionnaire. It was given twice for the pilot study. The results of this table show that the questionnaire is reliable.

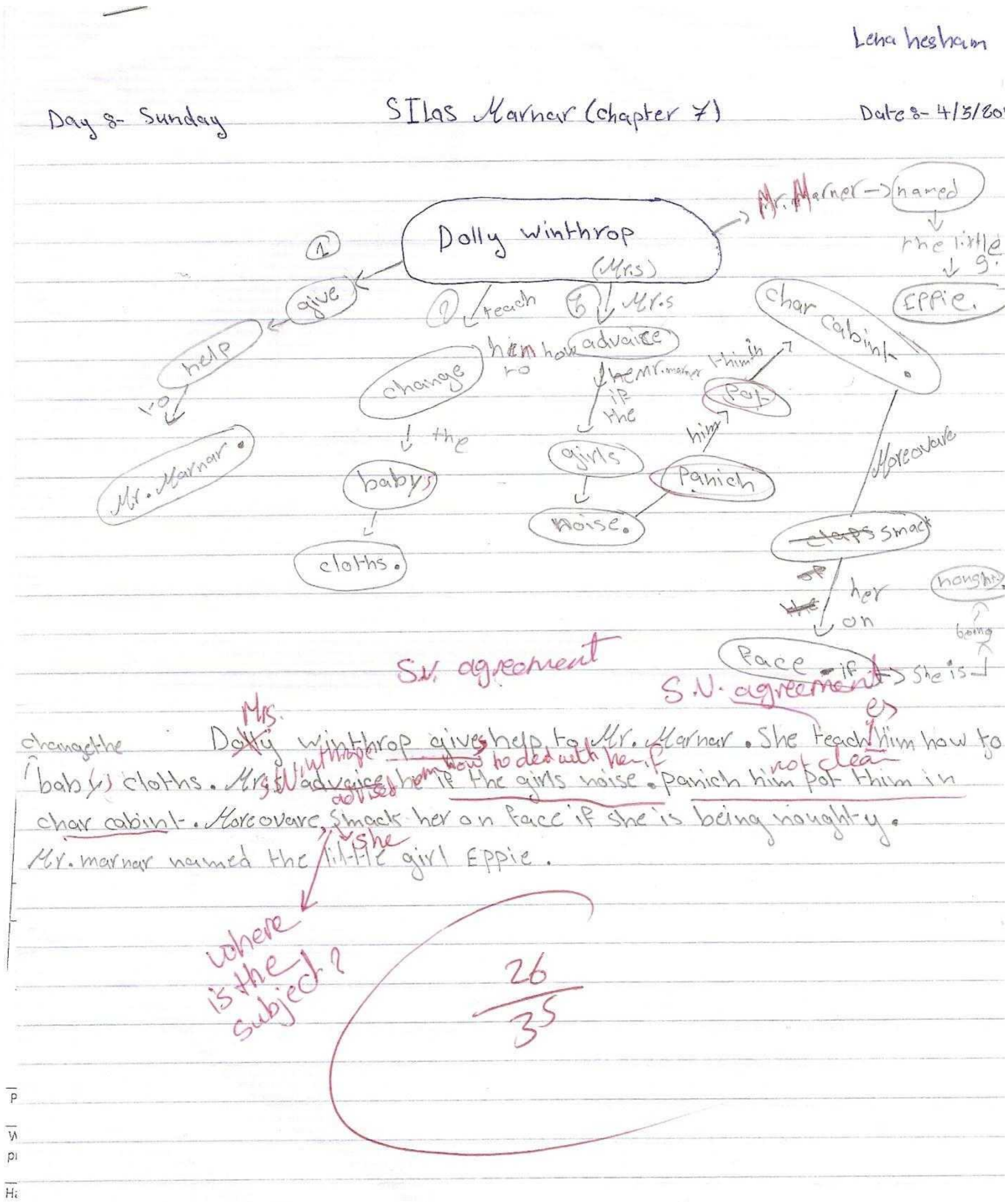
Appendix F

Two Samples of Errors Committed by the Experimental Group

Sample #1: the Overuse of "and"



Sample #2



Lena hesham

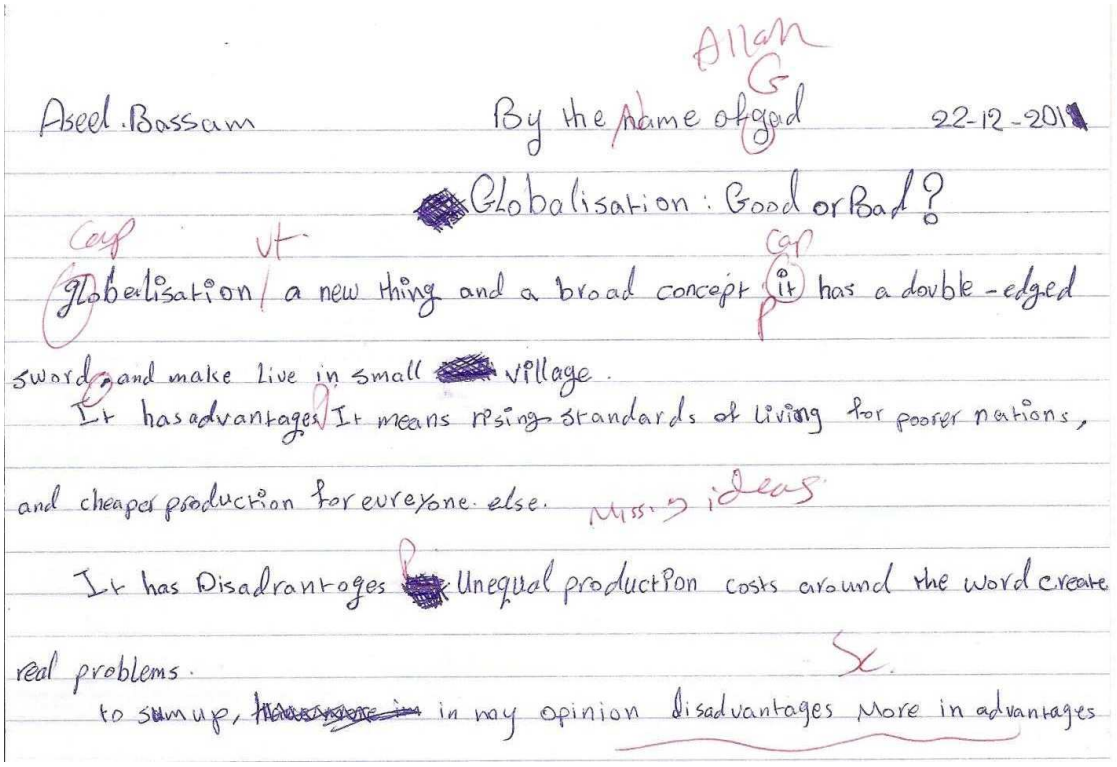
Day 8- Sunday SIlas Marnar (chapter 7) Date 8- 4/3/20

Dolly winthrop gives help to Mr. Marnar. She teach him how to change the baby's cloths. Mrs. Winthrop advaices him if the girls noise. panich him pot him in char cabint. Moreovare, smack her on face if she is being naughty. Mr. marnar named the little girl Eppie.

Appendix G

Samples of Writings from the Control Group

Sample #3: Errors Committed by the Control Group



Aseel. Bassam — By the name of God (Allah) — 22-12-201

Globalisation: Good or Bad?

Globalisation (cap) / a new thing (vt) and a broad concept (cap) it has a double-edged sword, and make live in small village.

It has advantages. It means rising standards of living for poorer nations, and cheaper production for everyone else. (Miss. ideas)

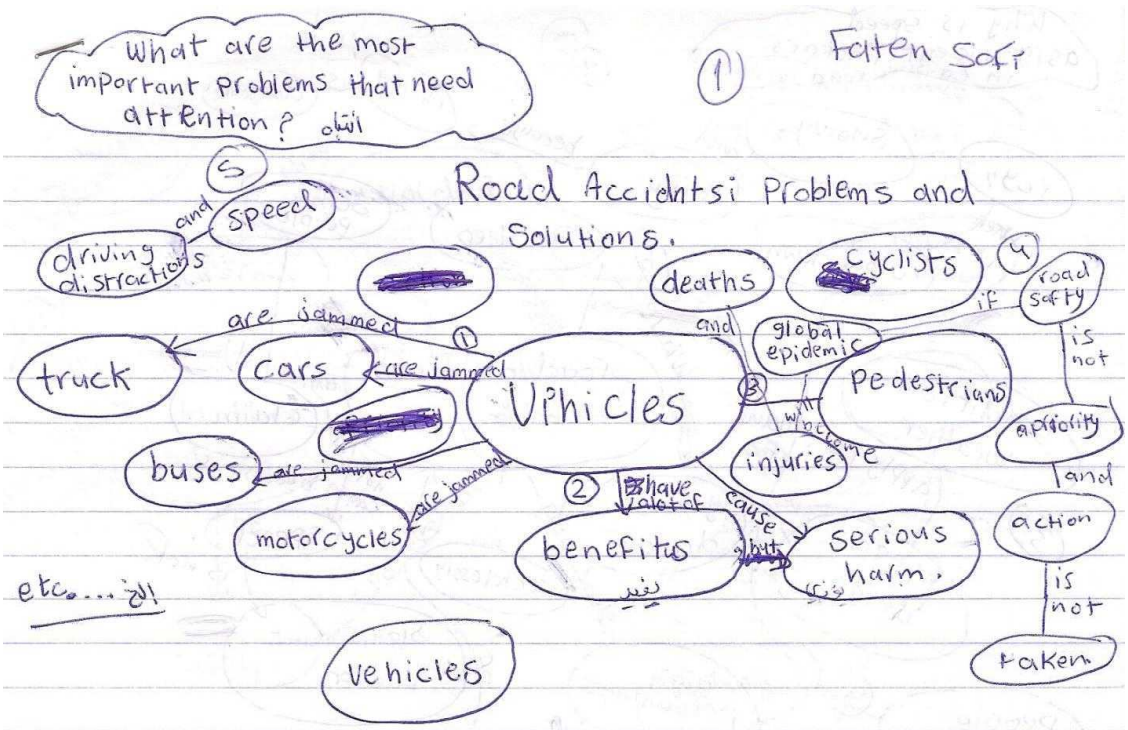
It has Disadvantages Unequal production costs around the word create real problems. (Sx.)

to sum up, ~~[illegible]~~ in my opinion disadvantages More in advantages

Appendix H

Samples from the Experimental Group CMs

Sample # 4: A CM for a paragraph from an argumentative essay Drawn by a Subject from the Experimental Group



Throughout the world, ~~Vihicles~~ roads are jammed with truck, cars, buses and motorcycles. Vihicles have alot of benefitus, but ~~vihicles~~ cars cause a serious harm. ~~[redacted]~~ Pedestrians ~~global epidemic will~~ roads will become injuries and deaths. Global epidemic if road safty is not apriority and action is not taken. Speed and driving distractions are the most important problems that ~~need attention~~.

Sample #5: A CM of an expository descriptive essay drawn by a subject from the Experiment