

A STUDY ON STRATEGY INSTRUCTION FOR UNDERGRADUATE ENGINEERS' WRITING SKILL

SHABANA THAYNIATH

Assistant Professor, Department of English, Muffakham Jah College of Engineering & Technology , Hyderabad,
Telangana India

ABSTRACT

Writing in a foreign language is a difficult skill for language learners to acquire and more in academic context. The use of strategy instruction is not common in classrooms but it could be helpful for Language learners .The present study aims at investigating the effect of Concept Mapping strategy on EFL learners. Thirty students of Engineering participated in this study .The students were assigned to control and experiment group .They were at the intermediate level of English proficiency and studying English as part of their prescribed syllabus. Their Language proficiency was determined by Michigan Test of English Language Proficiency.(MTELP) (Corrigan,1979). The study revealed that the instruction of concept mapping strategy has a positive result on the language learners' writing achievements. The study showed that designing strategy based syllabuses helps for successful Language performance.

KEYWORDS: Strategy, Writing Skill

INTRODUCTION

Becoming a writer is a complex and ongoing process, and becoming a writing teacher is no less complex Barbara Kroll (Second Language Writing).

Writing is one of the skills along listening, speaking and reading .Writing helps the person to put his thoughts into words in a meaningful form writers need writing motions and knowledge of letter shapes, they need to recognize the need for space between words. Byrne (1979:6) states that writing is transforming out thoughts into language .It require physical and mental activity on the part of the writer. It is a complicated process which involves a number of cognitive and met cognitive activities for instance; brainstorming, planning, outlining, organizing, drafting and revising.Cognitive aspects of writing have received particular attention as investigators have tried to understand the thought process underlying the composition of students .Learning to write is difficult specially for those writing in Second or foreign language in academic contexts.

According to Bereiter and Scardamalia (1987) putting together concepts and solving problems, the writer engages in "a two way interaction between continuously developing text".The process of drawing a concept map not only demands active involvement of the learner in the learning process but also throws light on their understanding in a particular area. Writing is a flexible, goal directed work; it requires extensive self regulation and attention control. The study tries to find whether English Language Teachers can help students to improve their writing skills by the explicit instruction of learning strategies like concept mapping.

The main purpose of this study is to investigate the effectiveness of explicit instruction of strategies namely concept mapping on EFL learners' writing improvement.

REVIEW OF LITERATURE

White (1987) state that "writing is challenging for ESL/EFL learners, it involves discovering, ideas and discovering how to organize them and discovering what it is that one wants to put across the reader". Teaching writing in a second or foreign language has passed different trends, each of which has benefits and shortcomings. Process writing arose in the late 1960s and the early 1970 in reaction to the product centered pedagogy.

Flower and Hayes (1980) suggested that writers employ different strategies while composing the work .They stated that composing strategies are decisions to cope with the linguistic and rhetorical problems posed by the writing task as seen by the writers .Flower and Hayes (1980) presented a model of skilled writers in which cognitive process formed a major component .These included planning, translating and review process.

- **Planning** - plan what to say and how to say. Plan with setting goals, generating ideas and organizing ideas into writing.
- Translate plans into ideas.
- Review by reading and editing the written text.

Concept mapping is a learning strategy; it is a graphical tool for organizing and representing knowledge. They include concept, usually enclosed in circles or boxes of some type, and relationships between concepts indicated by a connecting line linking two concepts. It is tool used by students in learning .With the visual representation of the key words; the learners can organize these key issues in a meaningful way. Research reports that concept mapping strategy helps learners and has positive effects on the academic writing of the learners.

Freeman (2002) gave an explanation for the effect of concept mapping on the writing process .She stated that human minds have the ability to create conceptual projections from the concrete to abstract by the process of mapping from one to another .The ability to create maps helps learners to improve their writing. According to Schunk (1998) students who believed they were learning a useful strategy were more successful in improving their writing .Concept mapping is a strategy which emphasizes organization which may help the students to improve their writing .According to Zimmerman (1986), a student's ability to control their learning or "self regulation", refers to the degree to which individual become Meta cognitively, motivationally and behaviorally active participants in their own learning process. Self regulation in writing was defined as the strategy that writers adopt to preplan what they are going to write, to review and edit output.

Many teachers have attempted to influence the course of this development by using models of skilled writers and the strategies used by them or they tried to establish predictable routines when writing processes such as planning and revising were expected and reinforced.

The study of literature shows that a wide range of terminology associated with learner training ,which also reinforced to as a strategy teaching (Richards etal;1992) or strategy teaching instruction (Brown,2000).

A number of language learning strategies were suggested to help language learners. Richards, Platt, and Platt (1992) presented a specific definition of strategy training and outlined three different approaches it is training in the use of

learning strategies in order to improve the learner's effectiveness. A number of approaches to strategy training are used including 1) Explicit or direct training: learner's are given information about the value and purpose of a particular strategy, taught how to use them and how to monitor their own use of the strategies. 2) Embedded strategy training: the strategies to be taught are not taught explicitly but are embedded in the regular content of an academic subject area, such as reading math or science 3) combination strategy training: explicit strategy training is followed by embedded training (p.355).

Techniques used in the language classroom encourage, build and sustain effective language learning strategies in students. Learner training can be summed up as teaching learner how to learn, with a view to become independent and autonomous learner.

The study of literature has revealed that a lot of research in the student's self regulation may vary under the effect of learning strategies. The area of interest is to find out whether explicit instruction of learning strategies like concept mapping can lead to an increase in student's self regulation.

METHODOLOGY

Restatement of the Problem

Strategy instruction has helped to improve in vocabulary learning, reading comprehension and writing it is likely that it would help the foreign language learners in different tasks. This study tries to answer the following questions:

To what extent does concept mapping strategy improve learners writing performance in an EFL setting?

Design

The participants were divided into two groups one control group and other experimental group. In the first stage both groups participated in posttest and only the experimental group was exposed to concept mapping.

Participants

Thirty students from the college of Engineering participated in the study. They have passed intermediate and were in the age group of 17-18 years. To test the level of English proficiency Michigan Test of English Language Proficiency (METELP) was used. According to the mean and standard deviation of the test, the students whose scores fell one standard deviation below and above the mean were assigned as the intermediate group. Fifteen students were assigned for control group and fifteen students were assigned for experimental group out of which eight number were female and seven were male. In the control group ten were female and five were male.

Instruction Material

The treatment of the experimental group was instruction and practice in concept mapping strategy. Students in the experimental group were given handouts on concept mapping, instruction and practice. They practiced writing from easy and familiar topics (school, friends, and internet). The control group wrote on the same topics without the use of concept mapping strategy.

Instruments

Michigan Test of English Language Proficiency (METELP) (Corrigan, 1979); was the instrument used to determine the level of English proficiency of the students. An essay writing task were applied to measure the student's writing ability

.First the students were asked to participate in the test of English Language proficiency and from among sixty students thirty students were selected. The students whose scores fell one standard deviation below and above mean were assigned as the intermediate group then the students in the two groups were asked to write expository essays on Internet and Technology for pretest and posttest .The topics for pretest and posttest were same .The essay was scored out of 20.The students paper was scored by two raters (one the researcher and another teacher who taught writing at the undergraduate level for many years .) Interrater reliability for the pretest and posttest were .67 and .65 respectively.

Procedure

Each class of 50 min and eight classes were used for this purpose.

Pre Testing

All the thirty students were asked to write two essays on the given topic .The allotted time for each topic was fifty minutes. The papers were collected and each student score was measured on the average score for the two raters.

Strategy Instruction

The strategy instruction phase started after the students participated in the pretest. The students in the experimental group received the instruction for concept mapping strategy .The strategy was taught following Harris and Graham (1996):

- **Strategy Description:** At the beginning of the class ,students were told about the strategy of concept mapping .Concept mapping was described as a strategy that could be used to categorize information in a graphic form through drawing .The sequence of steps of creating the concept map was explained .This strategy can be also used for vocabulary development, reading comprehension, study skill and prewriting activities .
- **Discussion of Goals and Purposes:** The teacher explained the learners about the significance and advantages of using concept mapping strategy in writing compositions .Students were asked two questions.
 - How do you think this strategy might help you to write?
 - How could this strategy help you with different types of writing?
- **Modeling the Strategy:** A map was created on the board using concept strategy mapping by the teacher .A common topic was decided with the student's consensus. This topic was labeled as the "main idea" of the concept map .Next possible subtopics were generated and added to the main idea .Students were taught how to write subtopic information in telegraphic form .The teacher modeled the use of telegraphic language forms and explained that this involves choosing important information. After completion of the map the information was transferred into written form, paragraphs starting with top level structures i.e. ., topics and subtopics. The teacher reviewed the information on the map and showed how to the rewrite the information on the map into complete sentences .At the end the concluding paragraph was written.
- **Students Mastery of Strategy Steps:** During this stage students memorized, rehearsed the sequence of activities for concept map construction.
- **Guided Practice and Feedback:** During these sessions, feedback was provided for students' performance

.Students chose a topic and created maps .Then they used the concept maps to write essays.

The first two classes were devoted to training the technique .The other two classes were spent on Practicing the strategy in order that the students master the fundamental skills .When the essays were composed with concept mind mapping strategy other teaching techniques was not employed in the classroom .

Post Testing

After the instruction period of strategy concept mapping all the thirty students in the two groups wrote on the given topic .Again the score was measured based on the average score for the two raters.

Scoring

Students were asked to write essays to measure their writing ability .The written essays were then scored based on Jacobs et al.(1981,as cited in Weigle,2002). In Jacobs et al .scale the essays were rated on five aspects writing, content, organization, vocabulary, language use and mechanics. The five aspects have different weights according to their emphasis:

Content -30 points

Language use -25 points

Organization and vocabulary -20 points

Mechanics -5 points

Spelling and handwriting was not taken into consideration. The essays were scored by the researcher and the scores combined .Each essay was scored out of 20. Inter rater reliability for the pretest and post test compositions were .67 and .65 respectively .The final score for each student was the average score for the two raters.

RESULTS AND DISCUSSIONS

The major question addressed in this study was whether the use of concept strategy would improve EFL students' writing performance at the undergraduate level of language proficiency. In the beginning, descriptive statistics for the subject's performance on writing testes were computed. The table gives basic descriptive statistics including means and standard deviation of pretest and posttest on writing achievements tests of the two groups.

The scores of the experimental group and the control group on the posttest shows that's the students who participated in the experimental group performed better than the control group .The students' in the control group performances was lower than the experimental group .

The findings of the study showed that explicit instruction of concept mapping strategy affected the learners 'writing performance .The findings also support Schunk's (1998) claim holding that students believe they are learning a useful strategy that will successfully improve their writing .

Another explanation of the positive effect of concept mapping strategy on the learners writing achievement is provided by Cicognani (2000), that the visual representation of keywords on a map, a learner is able to refine language and vocabulary ,identify key issues and present in a meaningful chart .The learners do not get lost ;they have a reviewing map

to which they can come back to review the previous steps and to organize the new information .

CONCLUSIONS AND IMPLICATIONS

The paper has shown that the application of concept mapping strategy by the learners ,helps them to improve their writing performance .Graphical representation helps the students to organize their ideas and present them in a better manner .The paper shows the effectiveness of concept mapping for the students writing task which supports what Atkinson (2003) stated ,'.by advocating a post process approach to L2writing I do not suggest that process pedagogy should necessarily be replaced in any wholesale way in the L2 writing (p.10) Atkinson further stated in the post-process “we seek to highlight the rich multifocal nature of the field” and “go beyond now traditional views of L2 witting research and teaching”(p.12)

The findings of the paper shows that concept mapping strategy can help students to understand problems, make students make more creative .The teachers can also use concept mapping strategy to make learners better writers.

The present paper only saw the use of concept mapping in the undergraduate learners, there are other areas that can be studied further .It can also be used in schools and the classrooms with different educational background.

Concept mapping is one way of improving the students composing skills and there are many other ways with which the writing skills of the learners can be improved.

Table 1: Means and Standard Deviation for Pretest and Posttest Scores on Writing Achievement Test

	M	SD	N
pretest			
Experimental group	11.13	4.6	15
Control group	12.83	2.96	15
Post test			
Experimental group	14.76	1.99	15
Control group	12.96	2.595	15

REFERENCES

1. Atkinson.(2003)L2 writing in the post era .*Journal of Second Language Writing*,12(1),3-15
2. Badger, R. & White, G(2000) .A Process Genre Approach to Teaching *ELT Journal*,54(2),153-160 .
3. Brown, H.D. (2000).*Principles of Language Learning and Teaching. (Fourth Edition)*. NewYork: Longman.
4. Cicognani, A. (2000).Concept Mapping as a Collaborative Tool for Enhanced Online learning .*Educational Technology & Society* ,3(3),150-158.
5. Corrigan, A (1979).*The Michigan Test of English language Proficiency* .Ann Arbor: English Language Institute, University of Michigan.
6. Flower. L. & Hayes, J.R. (1981) Plans that guide the composing process .In C.H. Frederiksen, & J.F Dominic (eds).*Writing: the nature ,development ,and teaching of written communication* ,vol 2 :Writing process development and communication (pp39-58),Mahwah, NJ: Lawrence Erlbaum Associates

7. Freeman, M.H.(2002).Cognitive mapping in literacy analysis .Los Angeles Valley College ,EBSCO Publishing .
8. Graham,S,& Harris ,K,(2000).Self regulation and strategy instruction for students who find writing and learning challenging .In M. Levy &S .Ransdell (Eds).*The science of writing theories ,methods, individual differences and applications*,(pp.347-360),Mahwah, , NJ: Lawrence Erlbaum.
9. Harris, K &,Graham,S (1996).*Making the writing process work: Strategies for composition and self regulation* .Cambridge :Cambridge University Press.
10. Hyland, K. (2003).*Second Language Writing* .Cambridge University Press.
11. Krashen, S.D.1981 .*Second language Acquisition and Learning*, Oxford: Pergamon
12. Krashen, S.D.1982 .*Principles and Practice in Second language Acquisition and Learning*, Oxford: Pergamon.
13. O Malley, J.M & Chamot, A.U (1990), *Teaching Language in Context*.Boston:Heinle& Heinle
14. Oxford, R.(1990) *Language Learning Strategies :What Every Teacher Should know*.New York, Newbury house.
15. Richards, J.C., and H.Platt. (1992) *Dictionary of Language Teaching and Applied Linguistic. (Second Edition)*, Harrow, Essex: Longman.
16. Schunk ,D .(1998)Teaching elementary students to self regulate practice of mathematical skill with modeling .In D.H. Schunk& B.J. Zimmerman,(eds) *Self Regulated Learning :from Teaching to self reflective practice* (pp.137-159). NewYork:The Guildford Press.
17. Weigle, S.C. (2002) CambridgeUniversity Press.
18. White, R. and Arndt, V 1991, *Processwriting* .London: Longman.
19. Zimmerman, B .J and A.S. Paulsen.(1995)*Self monitoring during collegiate studying :An invaluable tool for academic self regulation* .In P.R.Pintrich (ED). Understanding self regulated learning (pp13-28) San Francisco: Jossey Bass.

APPENDIX INSTRUCTIONAL MATERIAL

What is a Concept Map?

Concept map is a graphic representation of ideas and concepts. It consists of concepts or nodes linked by labeled lines to show relationships and interrelationships between terms. Concepts are arranged hierarchically so that the most inclusive, consumptive concepts appear at the top of the map, with less inclusive, subordinate concepts below (Jonassen & Grabowski, 1993: 439).

An example of concept map:

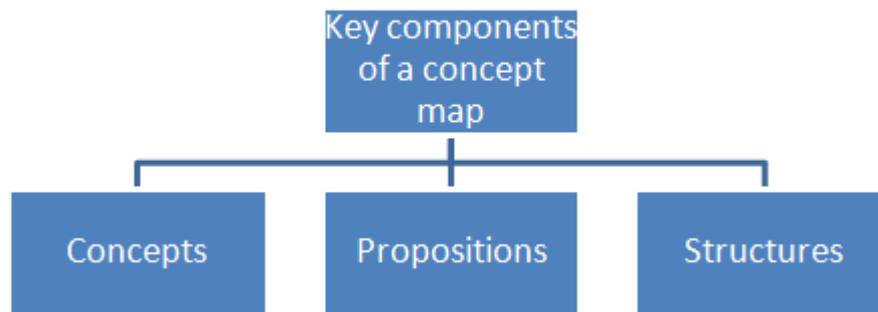


Figure 1

Concept Mapping As a Learning Tool

- To summarize reading materials
- To organize knowledge domains
- To organize ideas for writing and research
- To plan your research project and identify the variables in it
- To fix learned materials in long-term memory
- To revise effectively for examination

Uses of Concept Mapping

- Develop an understanding of a body of knowledge
- Explore new information and relationships
- Access prior knowledge
- Gather new knowledge and information
- Share knowledge and information generated

How to Organize Our Thoughts through Concept Mapping

A concept map is simply a way to visually display the concepts and relationships among ideas. This will help you to further organize your ideas and define your topic. It allows you to quickly write down your ideas and then see the organization of your topic. As you map, think about what issues you would like to focus on related to the main idea. Also think about the ways you will collect data and present the material. Later you can return to your concept map as you create your

Outline. You can turn each level of bubbles (main topic, subtopics, etc.) into a level on your outline. This is a way for you to gain exposure to multiple dimensions of a topic that you might not have considered. To create a concept map you have to follow steps given below.

- Identify the general/broad topic that you are interested in

Example: You are interested in the general topic of pollution.

- Brainstorm on the general topic and list all the concepts and themes that are
- Related to the topic on a large piece of paper. Keep the concepts as concise as possible
- Using unlined paper, write the main theme in the center of the page.
- Take the other concepts identified in the brainstorming and connect them to the Center concept. You can use other organizational patterns such as branches, arrows or groups. More important ideas should be put nearer to the center and less important ones closer to the edge. Identify the relationship between the concepts
- After the map has been created, look at the organizational patterns to see if the pieces fit together and make sense and if there is anything missing. After the map has been created, look at the organizational patterns to see if the pieces fit together and make sense and if there is anything missing.

Critical Questions

After you created the map, you may ask yourself the following questions:

- What is the central word, concept, research question or problem around which to build the map?
- What are the concepts, items, descriptive words or telling questions that you can associate with the concept, topic, research question or problem?
- What is said about the concepts? Record the quotes or paraphrase.

Practice Concept Mapping

Think about trees and their advantages. Then try to map out the general and Specific ideas on a diagram. Here is an example:

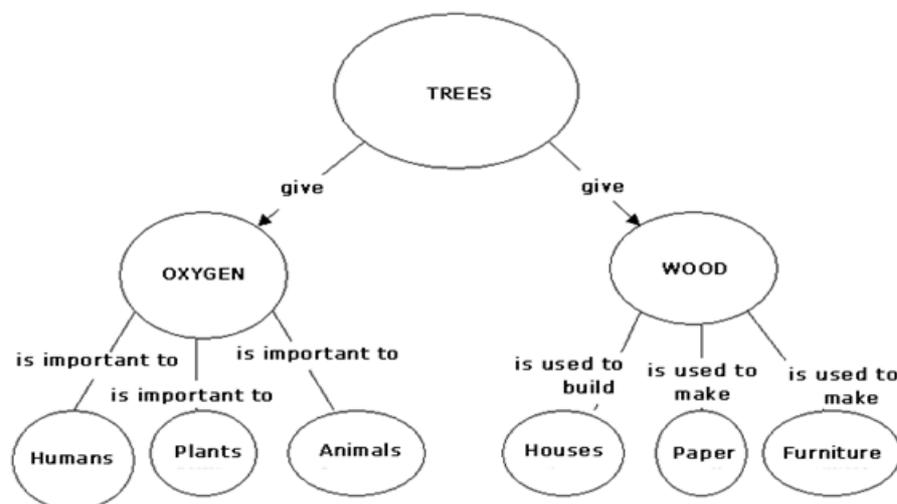


Figure 2

Some Tips on Making Concept Maps

- Use a top down approach, working from general to specific or use a free Association approach by brainstorming nodes and then develop links and Relationships. Use different colors and shapes for nodes and links to identify different types of information. Use different colored nodes to identify prior and new information. Use a cloud node to identify a question.
- Gather information to a question in the question node.

Final Words

Each student may have different way to represent what they think. Your Concept map should reflect your information of a topic. It is always advisable to Write down notes describing what you have mapped.

Appendix B. 1. Sample Tasks

Create concept maps according to the following topics and compare yours with other students.

Unemployment -Internet

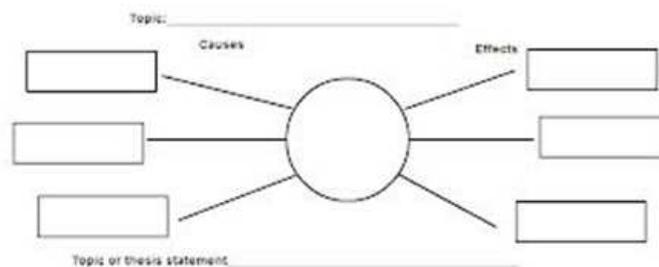


Figure 3



Figure 4



Figure 5

