# The Effectiveness of Using "Semantic Mapping strategy" on Reading Comprehension of Jordanian University Students Kholoud Hussein Amoush

# Abstract

This paper focus on The Effectiveness of Using "Semantic Mapping strategy" on Reading Comprehension of Jordanian University Students. Literature review is done to support the data. Data collection and analysis is done and on the basis of that recommendations are given.

Keywords: Effectiveness ; Semantic Mapping strategy; Reading Comprehension ; Jordanian University Students

# Introduction

Reading is very important for study purposes, careers, or simply for pleasure. Only by reading, we can get much information and pleasure. According to (Harris,1980)

"Reading is a form of communication. Information and ideas are exchanged between writer and reader in the act of communicating. The writer expresses his thoughts on paper with language, using whatever skills and styles he has developed personally".(p 53)

It means that when we read something, we interact with a piece of written material that the writer has written in order to give some information or ideas. Reading is a necessary skill that any learner needs. There is no doubt that reading occupies a distinguished position among the other skills of the language and its importance in teaching/learning is unquestionable. Because of that, learning to read is a fundamental goal of schooling and a major part of curricula and for EFL students , efficient reading is the most important skill in language learning. Cross and James (1995,p 255) have stated that:

INTERDISCIPLINARY JOURNAL OF CONTEMPORARY RESEARCH IN BUSINESS VOL 4, NO 6

Clearly, reading in the foreign language deserves attention and reading passages should not be viewed merely as a springboard for speaking or writing activities. An aim of most language teaching programs should be to develop the students' reading competence''.

Teaching reading has not been given much care in our schools and universities. In the past time, according to the traditional strategy, reading begins with the child's mastering the names of the letters, then mastering the letter-sound relationships, then learning some easy words in isolation, and finally reading samples of simple stories with highly controlled vocabularies (Harp, B and Brewer, J 1996). Researchers and teachers as well complain that most learners are not able to understand what they read. It is widely agreed on, however, that teaching reading is more difficult than teaching other language skills as speaking, listening ...etc.

All English teachers want their students to be good readers, but not all agree on the best way to teach reading skill. Effective reading requires not only accurate reading skills, but also to be able to comprehend easily and automatically (Lyon, 2001).

So the researchers and teachers started looking for ways and strategies that enhance students reading comprehension. Researchers found that one of the ways that may have a significant effect on the teaching reading process is the semantic mapping strategy. Antonnaci (1991:174) states that, "semantic mapping is a visual representation of knowledge, a picture of conceptual relationship. It means that semantic mapping can be as a visual representation of knowledge. Zaid (1995:6) said that, "the students who use semantic mapping manifest considerable improvement reading comprehension, written expression and vocabulary development.

Steps in the creation of semantic mapping strategy particularly the concept and word mapping strategies are: Analyze the concepts and vocabulary in the text. Arrange the words in a map that depicts the interrelationships between the concepts .Add to the diagram the words or

**INTERDISCIPLINARY JOURNAL OF CONTEMPORARY RESEARCH IN BUSINESS** Vol 4, No 6 concepts that are already understood by the students in order to depict the relationships between what they know and the information in the text (Chall, J. 1996).

The semantic mapping strategy is a schematic diagram of the major concepts in a portion of text. The researcher of this study uses the semantic mapping strategy because this strategy can be easily taught and implemented by the students ,in addition to its noticeable role in developing students' thinking skills and reading comprehension . The objective of this study is to apply the semantic mapping strategy in transferring two reading comprehension texts taken from the Connection Series –Intermediate Level and teaching students the maps created by the researcher to measure the effect of using semantic mapping strategy on the students' reading comprehension.

#### **Statement of the Problem**

Our Jordanain students, in particular, at the university level, face problems while trying to understand texts written in English in the reading lessons. Dyreson (1995) has clearly diagnosed the problem of such students:

Many students have great difficulty finding main ideas in informative speech or text, and using these main ideas to organize the information to be learned so that a useful memory is constructed – one that guides flexible recall for answering questions or explaining ideas. (p1)

Our students are not taught how to learn; rather the burden of learning is dependent upon the student's own ability in organizing and structuring information into memory. They only read the textbook required to be able to perform well in the achievement tests .They are not interested in what they are reading . Our students are reluctant to read English texts other than their school textbooks . Our students do not interact with the text they read, nor they build relationships between the terms in the text to build up the meaning, and then to lead themselves toward reading comprehension. Students are not aware of the strategies that may help them in reading,

Through her long experience in teaching English, the researcher believes that there is a general dissatisfaction among parents, school teachers, and university instructors from the poor level of reading comprehension achievement of Jordanian students in reading English texts. As a result to what is mentioned previously, the researcher believes that it is important to use semantic mapping strategy for teaching reading comprehension in the Jordanian universities and schools as well. Our students need to read about what they are interested in and to interact so as they can communicate effectively.

#### **Purposes of the Study**

The present study attempts to investigate the effectiveness of using semantic mapping strategy for teaching reading comprehension to students at Al- Balqa Applied University in Jordan, as compared to the traditional method. And the researcher tries to explore the effectiveness of the use of an innovative teaching method in enhancing reading comprehension. The findings of these purposes will hopefully empower the teachers and students with a strategy to overcome reading comprehension difficulty or to facilitate the reading process, at least .

#### **Questions of the Study**

The study aims at answering the following questions:

1- Are there any significant differences between the mean scores achieved by the experimental group on the pre-test and the post- test that can be attributed to the effect of using the semantic mapping strategy?

INTERDISCIPLINARY JOURNAL OF CONTEMPORARY RESEARCH IN BUSINESS VOL 4, NO 6

2- Are there any significant differences between the mean scores achieved by the experimental group and the those achieved by the control group on reading comprehension on the post-test that can be due to the semantic mapping strategy?

#### Significance of the Study

In view of this simple review of related literature and to the best knowledge of the researcher, it is quite noticeable that the studies on Jordanain EFL students at the university level to explore the effectiveness of an innovative strategy for teaching reading comprehension as semantic mapping strategy are few. So the study aims at measuring the effectiveness of the semantic mapping strategy on the students' reading comprehension,

## **Review of Related Literature**

As a matter of organization, the researcher divided the content of this section into two major parts: theoretically and practically. Theoretically, the researcher attempts to shed light on reading comprehension process, semantic mapping strategy and how can students' reading comprehension be enhanced by implementing such strategy. At the practical level, the study summaries the findings of related research studies. So, the study tries to pay the English language teachers` attention to the important role of the semantic mapping strategy in teaching reading skill in the English textbooks in the schools and universities as well.

## **Theoretical Section :**

Heimlich, J. E., & Pittelman, S. V. (1986) explained that a semantic Map is one type of graphic organizer. It helps students visually organize and graphically show the relationship between one piece of information and another. This strategy has been identified by researchers as an excellent technique for increasing vocabulary and improving reading comprehension.

Barr, Sadow, and Blachwicz (1990) emphasized that reading is an active process in which readers interact with the text to reconstruct the message of the author or writer. They cite from recent research that states the extent to which reading depends on the background knowledge of readers. And printed symbols during the process of constructing knowledge.

Mcknight (2000) believed that reading comprehension, or the construction of

meaning while reading, is the goal of reading and is not a solitary and simple process. It is a complex and dynamic process in which the reader decodes the writer's words and draws on his own background knowledge to construct understanding of the text that is similar to the writer's intent. Comprehension relies on the reader's experiences, knowledge about language, knowledge of the text structures and genres, metacognitions, basic reasoning abilities and active engagement.

(Harvey, et al 2000) mentioned that semantic mapping strategies are valuable instructional tools. Unlike many tools that just have one purpose, semantic mapping is flexible and endless in application. One common trait found among semantic mapping strategy is that they show the order and completeness of a student's thought process - strengths and weaknesses of understanding become clearly evident. Many semantic maps show different aspects of an issue in close and also the big picture, since many semantic maps use short words or phrases, they are ideal for many types of learners, including English Language readers with intermediate proficiency. Tree maps can be used to show classifications, analysis, structures, attributes, examples, and brainstorming.

**INTERDISCIPLINARY JOURNAL OF CONTEMPORARY RESEARCH IN BUSINESS** Vol 4, No 6 Oxford's study (as cited in Svenconis & Kerst, 2002) noted the implication of semantic mapping in classroom instruction requires a variety of basic memory and

comprehension techniques (such as marking associations, grouping, and using visual memory of the semantic map) that associate relevant previous knowledge to the new . This technique mainly , will help students comprehend the text that they are reading .

Raymond C. Jones, (2006) added that semantic mapping can be a helpful reference for students to use in clarifying confusing points as they are reading. Once students are familiar with the nature of the semantic maps, they can create their own as a during-reading or post-reading activity.

We can conclude from what is mentioned above, reading is an active process between the reader, writer and the text. Most scholars agree that in order to attain comprehension readers should bring the background knowledge and experience to construct the meaning besides linguistic knowledge and this could be possible by using a strategy as semantic mapping.

#### **Practical Section**

Several studies have investigated semantic mapping strategy on students, and reported that teaching this strategy is important for enhancing reading comprehension .

A study by Malendez (1991) was conducted to investigate the effect of semantic mapping, reading level on culturally diverse students, particularly Filipino – Americans. The results of this investigation indicated a strong relationship between semantic mapping and reading comprehension. This study also indicated a strong correlation between semantic mapping and reading level.

Zaid , M. (1995) applied the semantic mapping technique in teaching reading to his students at Abha college of Education. He explained that semantic mapping has been shown to be a beneficial learning and teaching strategy for all grade levels in regular and remedial classrooms as well as for those who are learning-disabled. He added that students who use semantic mapping manifest considerable improvement in reading comprehension, written expression, and vocabulary development.

INTERDISCIPLINARY JOURNAL OF CONTEMPORARY RESEARCH IN BUSINESS VOL 4, NO 6

Al Koumy (1999) compared the effectiveness of three classroom methods for teaching semantic mapping to college-level learners of English as a foreign language . Subjects were 187 freshmen at an Egyptian university; they were randomly assigned to three treatment groups: teacher-initiated semantic mapping; student-mediated semantic mapping; and teacher-student interactive semantic mapping. Treatment was administered over 5 months in one session per week. Subjects were pre- and post tested in reading comprehension. While the pretest indicated no significant differences in the groups, post test results revealed students in the teacher-student interactive semantic mapping group scored significantly higher than the other two groups .

Kuo and et al (2002) investigated the effect of concept mapping to enhance reading comprehension and summarization. They designed three concept mapping approaches: Map correction, Scaffold fading and Map generalization to determine their effects on the readers' comprehension and summarization ability. The experimental results of 126 fifth grader showed that the map correction method enhances reading comprehension and summarization abilities and that the scaffold fading method facilitates summarization ability.

Darayseh (2003) explored the effect of a proposed program based on semantic mapping and brainstorming strategies on developing the first scientific secondary students' English writing and

**INTERDISCIPLINARY JOURNAL OF CONTEMPORARY RESEARCH IN BUSINESS** Vol. 4, No 6 reading ability . The findings of the study indicated that there were significant differences between the mean scores of the students in the experimental groups which can be attributed to the use of the semantic mapping teaching strategy. The researcher recommended that teachers should activate the prewriting phase and reading by using appropriate teaching strategies such as brainstorming and semantic mapping in particular.

Canas, J.D et al (2004) conducted a study about text concept mapping, the contribution of mapping characteristics to learning from texts. The effects of text concept mapping were tested during one school year (4 classes, 112 eighth graders: two classes were taught using concept mapping with practicing .The other two classes were taught through regular learning skills). The classes were tested on language mapping comprehension after the teaching process . The findings indicated an advantage of using text concept mapping on reading comprehension .

In conclusion, many studies showed almost the same findings; they showed that the effects of using semantic mapping strategy improve the learner's reading comprehension.

#### **Methods and Procedures**

#### Population and Sample

The population of the study consists of 600 students enrolled in the English 99 course at Al-Balqa Applied University .The sample of the study consists of two classes of English Course , Level one with twenty-five students each in Al-Balqa Applied University. The two classes were selected randomly. One class was assigned as an experimental group whereas the second class was assigned to represent the control group. The control group will be taught the reading comprehension lesson taken from the Connection Series-level one in a traditional way while the

mapping strategy.

In order to achieve the study objectives, the researcher used the following:

1- An achievement reading comprehension test which is to be used as a pre-test to both: the experimental and the control group. A multiple-choice reading comprehension test of twenty questions is constructed to assess the students` comprehension of the reading text

INTERDISCIPLINARY JOURNAL OF CONTEMPORARY RESEARCH IN BUSINESS VOL 4, NO 6

experimental group will be taught the same reading comprehension lesson by using the semantic

2- An achievement reading comprehension test which is to be used as a post-test to both: the experimental and the control group with some modification related to the ways each group is taught accordingly. A multiple-choice reading comprehension test of twenty questions is constructed to assess the students` comprehension of the reading text.

# Validity and Reliability of the Instruments

To guarantee the validity of the reading text tests, a number of TEFL specialists in Jordanian universities will assess the test. To check the reliability, the researcher will conduct a pilot study and modify the test accordingly.

# **Definitions of Terms:**

# Semantic Mapping Strategy:

It is a graphic representation that encourages the learner to search for meaning by displaying words in categories to show how they are related to each other.

**OCTOBER 2012** 

Interdisciplinary Journal Of Contemporary Research In Business Vol 4, No 6

#### **Reading Comprehension:**

It is an interactive process between the text and the reader in order to obtain meaning from print (text).

# Limitations of the Study

The generalization of the findings of this study will be limited by the following factors:

- 1. This study will be restricted to the university students at Al-Balqa Applied University in the second semester in the scholastic year 2012-2013.
- 2. Evaluating students` reading comprehension will be restricted to the chosen strategy that is adopted by the researcher .
- 3. The researcher will develop the reading comprehension tests.
- 4. The duration of the study and its effect on the findings .

# **Findings of the study**

The main objective of the study is to investigate the effectiveness of using the semantic mapping strategy on the reading comprehension for the university level- students .To achieve this objective, the researcher selects randomly two classes from Al-Balqa Applied University with thirty students each . One class is considered as an experimental group which is taught by the semantic mapping strategies and the other one is treated as a control group which is taught by the traditional way.

The first question of this study is: Are there any significant differences between the mean scores achieved by the experimental group on the pre-test and the post- test that can be attributed to the effect of using the semantic mapping strategy?

The researcher administrated the reading achievement pre-test in the first semester of the academic year 2010/2011 at Al-Balqa Applied University two weeks before the beginning of the experiment. Both the experimental and control group sat for the same format of the pre-test.

# Table (1)

Means and standard deviations obtained by the experimental group and the control group on the pre-test

				Std. Deviatio
	GROUP	Ν	Mean	n
PRE TEST	experimental group	30	80.70	18.04
	Control	30	78.49	20.26

It is clear from table 1 that there were significant differences between mean scores of the students in the experimental and control groups.

The second question of this study is: Are there any significant differences between the mean scores achieved by the experimental group and the those achieved by the control group on reading comprehension on the post-test that can be attributed to the semantic mapping strategy?

# Table (2)

Means and standard deviations obtained by the control and the experimental groups on post-test.

	GROUP	N	Mean	Std. Deviatio n
POST	Experimental Semantic mapping	30	78.32	22.010
	Control	30	72.81	24.450

Table 2 indicates that there were differences between the mean scores of the students in both groups; experimental and control in the post-test.

**Data Analysis** 

iicrb.webs.com

The purpose of the study is to examine the effectiveness of using semantic mapping strategy on reading comprehension by Jordanian University students.

The findings of the study show that semantic mapping strategy group performed better than the control group in the pre-test(comprehension test ) and in the post test .

# **Recommendations of the Study**

In light of the findings of this study, the researcher puts forward the following recommendations:

- 1- Students should be fully engaged in the reading process: Pre-reading activities, drawing semantic maps...etc.
- 2- Students need an environment that promotes reading and provides opportunities for individuals to work together in creating such maps. Teachers can to some degrees provide students with some technical ways of how to organize the reading process.
- 3- Training students to use the innovative reading strategies and techniques in their classroom such as the semantic strategy.
- 4- Inclusion of semantic mapping activities in the technical repertoire of CLT as Zaid (1995) once recommended.

# References

Antonacci, P. A. (1991). Students search for meaning in the text through semantic mapping. Social Education, 55, 174-175.

Barr,R.,Sadow,M,. and Blachwicz.(1990). Reading diagnosis for teachers:An instructional Approach.

Cañas, A. J., Hill, G., Carff, R., Suri, N., Lott, J., Eskridge, T., et al. (2004b). CmapTools: A knowledge modeling and sharing environment. In A. J. Cañas, J. D. Novak & F. M. González (Eds.),

Concept maps: Theory, methodology, technology. Proceedings of the first international conference on concept mapping (Vol. I, pp. 125- 133). Pamplona, Spain: Universidad Pública de Navarra.

Chall, J. (1996). Learning to Read: The Great Debate (3rd Edition). New York: McGraw-Hill. Pamplona, Spain.

Cross, J.(1995). Semanic Theory. New York: Pearson.

Darayesh, Al-Mutassim Ahmad.(2003). The Effect of a Proposed Program Based on Semantic Mapping and Brainstorming Strategies on Developing the English Writing Ability and Attitudes of the First Scientific Secondary Students. Unpublished Ph. D. Dissertation, Amman Arab University for Graduate Studies, Amman.

Dyreson, P. (1995). Effectiveness of Pre-reading Mapping on Comprehension. Unpublished Ph. D. Dissertation, Ohio University, Ohio.

**INTERDISCIPLINARY JOURNAL OF CONTEMPORARY RESEARCH IN BUSINESS** Vol. 4, No 6 El-Koumy, Abdel Salam.(1999). The Effects of Three Semantic Mapping Strategies on EFL Students' Reading Comprehension, College Freshmen; College Instruction.

Harp, B and Jo Ann Brewer, (1996) Reading and Writing: Teaching for the Connection, Harcourt Brace College Publishers, New York.

Harris,k.(1980). Reading in Content Areas .Strategies for Reading to Learn .Semantic Maps. University of Virginia.

Harvey, S. & Goudvis, A. (2000). Strategies that work teaching Comprehension to enhance understanding. York, ME: Stenhouse Publishers.(p.33-40)

Heimlich, J. E., & Pittelman, S. V. (1986). *Semantic Mapping: Classroom Applications*. Newark,DE: International Reading Association Embroke Publishers Limited.

Kuo et al. (2002). The Effect of Concept Mapping to Enhance Reading Comprehension and Summarization. The Journal of Experimental Education 71(1), 5-23.National Taiwan Normal University

Lyon, G.R. (2001). Towards a Definition of dyslexia. Annals of Dyslexia, 45:3-27 National Reading Panel (2000). Teaching Children to Read: An Evidence-Based Assessment of the Scientific Research Literature on Reading and its Implications for Reading Instruction. US Department of Health and Human Service National Institute of Child Health and Human Development NIH Pub. No. 00-4753.

Malendez, T(1991). The Effects of Semantic Mapping. Dissertation Abstract International vol.53, No.07, p.2311.

Mcknight, M. W. (2000). Overview of reading comprehension. Retrieved January 15,2007, from http://www.onlineacademy.org

Raymond C. Jones.( 2006). Strategies for Teaching Reading Comprehension. http://www.readingquest.org/start/graphic.html

Svenconis, D. J., & Kerst, S. (2002). Investigating the teaching of second language vocabulary through semantic mapping in a hypertext environment. CALICO Journal, 12, 33-57.

Zaid, M. A. (1995). Semantic mapping in communicative language teaching.FORUM, 33(3), 6-

16. Retrieved December 23, 2006, from http://exchanges.go.com