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A STUDY ON THE EFFECTIVENESS OF GRAPHIC ORGANIZERS IN COLLEGE STUDENTS' ENGLISH VOCABULARY BUILDING

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ABSTRACT

In language learning, strategies play a prime role. Well adopted materials without effective method of teaching are particularly useless. But with proper tools and instructional materials, a good teacher encourages each member of the class to participate directly in the learning experience. This study explored the efficacy of graphic organizers as a strategy to facilitate vocabulary building. The present study aimed at investigating the effectiveness of graphic organizers on developing college students' English vocabulary building and incremental growth of vocabulary among college students. . The sample of the study consisted of 64 first semester degree students. The study was conducted by adopting quasi-experimental design. The experimental group was taught by using graphic organizer strategy of vocabulary instruction and control group with the traditional method vocabulary instruction. A pre-test was administered at the very beginning of the treatment and post-test was administered after the completion of the treatment. The data were analyzed using the test of significance of difference between means. This study proves that graphic organizer strategy of vocabulary instruction had a positive effect on enhancing English vocabulary building of degree students. The results suggest that graphic organizers can be an effective tool for the incremental growth of English vocabulary in degree students.

Keywords: Effectiveness, Graphic Organizer, College students

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INTRODUCTION

One of the greatest and inevitable challenges educators face is determining the most effective teaching strategies for their students. Understanding and assessing student involvement in learning can help teachers design the most effective curriculum and determine how students' best learn. The objective of teaching English is to make the learner an effective user of the English language. Recently researchers and teachers within the language teaching field has been paying considerable attention to the language learning

strategies which are tools for active self-directed involvement needed for developing language skills. Research has repeatedly shown that the conscious tailored use of such strategies is related to language competence and proficiency in the use of language.

Teachers are constantly faced with introducing new vocabulary to students in all subject areas (Norfleet, 2002). Words that seem common to teachers can be a puzzle to students. Thus, the teacher is faced with the dilemma of how to make new subject matter and vocabulary meaningful to his/her students. Because vocabulary acquisition is

crucial to academic development, the teaching situation becomes more difficult when the subject matter is English. And many native or non-native English speakers will want to improve and enlarge their English vocabulary whether at the school, college or the university level (Grieser, 2009). What makes the situation even more difficult is teaching new vocabulary of English as a foreign language. As an instructor of English, the researchers noticed that students' knowledge of English vocabulary was very limited, no matter how much teachers emphasized the importance of vocabulary for their academic achievement. They used to show little attention and effort to studying vocabulary items that they encounter in their English textbooks. In an attempt to encourage them to gain more vocabulary knowledge, teachers used to employ different separate classroom activities such as giving the meaning of the word in the first language, locating the word in a text and making use of the context clues. Yet, only some students gained vocabulary building which was very limited in size and quality.

Pittman (2003) considers vocabulary building as the most important aspect of language learning, and Martin (1991) asserts that building a good vocabulary is a lifetime project for most educated people. In addition, confidence with vocabulary goes a long way in the four language skills of reading, writing, listening and speaking and with standardized test-taking (Pittman, 2003). Therefore, a student's existing language proficiency in vocabulary, grammar and idioms plays an essential role in text comprehension. Moreover, understanding new vocabulary should be meaningful to students by connecting these words to something they already know (Iwai, 2007). English vocabulary building, then, becomes a need and a challenge, at the same time, for a large number of students who study English only at schools and universities with few chances to use it outside the academic context. So this notion is most important.

Students with poor vocabulary items need strong and systematic educational support to become successful independent word learners. Thus, teachers should improve vocabulary instruction and provide strategies to help students

deal with the increase in new and difficult words (Hall & Sabey, 2007). In order to achieve a deeper understanding of newly taught words, Stirling (2003) and Templeton and Pikulski (1999) argue that teachers should encourage students to record and memorize vocabulary items by following several steps and principles such as employing a strategy that ensures organizing the vocabulary items to be taught; learning the vocabulary item accompanied with its meaning in the mother language, its spelling, pronunciation, synonym, antonym, grammatical behaviour, associations etc.

Using Graphic Organizers in Vocabulary Instruction

Graphic organizer is the theoretical construct that the visual and verbal organizational structure of the diagram consolidates information into a meaningful whole (Horton, Lovitt & Bergerud, 1990). Hence, students do not have the impression that they are being taught a series of unrelated terms, facts, or concepts. Furthermore, visuals seem to enhance retention and recall of vocabulary (Sigueza, 2005; Stirling, 2003). This notion is important because the world is moving into an era in which visual literacy is as important as language/textual literacy (Kang, 2004). Thus, Kang adds that English Language teachers should explore and exploit spatial instructional strategies to enhance learning and instruction. The graphic organizer strategy can be utilized in teaching vocabulary, among other courses, to English language students (Kang, 2004; London, 1999). Kang (2004) defines a graphic organizer as a creative technique used to present complex information and convert it into a simple and meaningful graphic display of the relationships between concepts. Graphic organizers can be used by students, on the one hand, as a study tool to better understand vocabulary meanings and then assess or review for a test, any new vocabulary items learned in a subject area. Teachers, on the other hand, can use the graphic organizer prior, during or following teaching a topic to organize the concepts taught. Suitable graphic organizers can be created or chosen by teachers alone, students alone, or both, to teach a certain set of vocabulary. Graphic organizers need to be as simple, clear, direct and teachable as possible (Jiang & Grabe, 2007). Mercuri (2010) confirms that

graphic organizers are powerful; they can be part of a supportive classroom environment and integrative instruction; and they can be easy to implement tools that allow teachers to examine students' learning on a particular topic, assess ongoing learning, and design and modify instruction to meet students' needs.

OBJECTIVES OF THE STUDY

The present study has the following objectives.

Major objective

1. To study the effectiveness of Graphic Organizers on the English vocabulary building of degree students.

Minor objectives

1. To find out whether there is any significant difference between the mean pre-test scores of experimental and control group.
2. To find out whether there is any significant difference between the mean post-test scores of experimental and control group.
3. To find out whether there is any significant difference between the mean gain scores of experimental and control group.

HYPOTHESES OF THE STUDY

1. There will be significant difference between mean pre-test scores of experimental group and control group.
2. There will be significant difference between mean post-test scores of experimental group and control group.
3. There will be significant difference between mean gain scores of experimental group and control group.

METHOD OF THE STUDY

The present study adopted a Quasi-experimental pre-test, post-test Non equivalent group design. The experimental group was taught using Graphic organizer strategy of vocabulary instruction and the control group was taught by traditional method of vocabulary instruction.

SAMPLE OF THE STUDY

The present study was conducted on the purposive sample of 64 degree students. Two intact classes of 64 first semester degree students (32 in experimental group and 32 in control group) from one college was selected as samples, one for the experimental and other for the control group where,

two different teaching methods were experimented. The college selected was Mar Dionysius College belongs to Thrissur district in Kerala (India).

TOOL USED

1. Graphic organizer strategy of vocabulary instruction with vocabulary items in English based on the prescribed English lessons. (Meera and Aiswarya 2014)
2. Traditional existing method of vocabulary instruction with vocabulary items in English based on the prescribed English lessons. (Meera and Aiswarya 2014)
3. Standardized test of vocabulary in English. (Meera and Aiswarya 2014)

Vocabulary instruction through Graphic organizer strategy

In the present study the graphic organizers are used for vocabulary instruction in the experimental group. The investigators prepared Graphic organizer strategy for teaching vocabulary items in the lessons of prescribed first semester English text book named Modern prose and Drama. The investigator implemented various graphic organizers in the teaching sessions to orient and train them on English vocabulary building through the use of graphic organizer strategy in various phases. The students were instructed on how to learn each of the vocabulary items as they appear in different lessons and wordlist of textbook in terms of eight of its features; namely, spelling, pronunciation, parts of speech, meaning in the first language, meaning in the foreign language, synonym, antonym and using it in an example by using graphic organizers. Graphic organizers selected for the study are Concept development graphic organizers, Compare and contrast organizers and vocabulary graphic organizers. In concept developmental organizers investigator used webbing strategies and word pyramids (word web / word map, / bubble map, brainstorm graphic organizer, vocabulary word cluster, describing word chart, and spider map). In compare and contrast organizers investigators used venn diagrams. In vocabulary graphic organizers investigators used vocabulary organizer, vocabulary organizer mini dictionary, Frayer diagram, word wheel, vocabulary tree diagram and network trees.

Traditional method of vocabulary instruction

Investigators used traditional method of vocabulary instruction in the control group. To implement the traditional instruction, the students of the control group were taught all the vocabulary items and their meanings in the first language as they appear in the different lessons and in the wordlist of the text book. The students were instructed on how to learn each of the vocabulary items as they appear in different lessons and wordlist of textbook in terms of eight of its features; namely, spelling, pronunciation, parts of speech, meaning in the first language, meaning in the foreign language, synonym, antonym and using it in an example through oral traditional instruction. Students were also asked to study those items outside the class.

English vocabulary Test

The investigators constructed Standardized test of vocabulary in English for testing the vocabulary knowledge of first semester degree students with the help of supervising teacher. The questions of the test covered features of vocabulary items. This test consists of items to ensure the pronunciation, meaning, parts of speech, spelling, antonym, synonym etc. The investigator used test-re-test method to establish the reliability of the test. The content validity is ensured. The tool was

Table 1 Data and results of the test of significance of difference between mean pre-test scores of experimental group and control group.

Variable	Sample	Sample size	Mean	Standard deviation	t-value	Level of significance
Pre-test	Experimental group	32	14.62	8.42	0.307	N.S
	Control group	32	14	7.71		

N.S- not significant

As per the data given in the table, the obtained 't' value (0.307) is found to be not *significant* even at 0.05 level. So it can be noted that there is no significant difference in the mean pre-test scores of English vocabulary test between experimental and control group. This indicates that the two groups are almost identical with regard to

distributed to the experts for their criticism and in their opinion the test possesses face validity. Thus its face validity is also ensured.

PROCEDURE

This Quasi-experimental study followed a pre-test, post-test Non equivalent group design with a treatment phase. Prior to the experiment the two classes were tested using test of English vocabulary for assessing their level of English vocabulary knowledge. The experimental group was taught by using graphic organizer strategy of vocabulary instruction and the control group was taught by existing traditional method of vocabulary instruction. Immediately after the completion of treatment two classes were tested using the same tool. The data collection procedure consists of three phases: - administration of the pre-test, treatment and administration of the post-test.

RESULT

Comparison of mean performance of experimental group and control group on pretest.

The mean performance of the experimental group and control group on the pre-test was studied using the test of significance of difference between means of large independent sample. The comparison was done for the total sample in both the experimental group and control group.

vocabulary knowledge.

Comparison of mean performance of experimental and control group on post test

The mean performance of the experimental and control group on the post test was studied using the test of significance of difference between means of large independent sample.

Table 2 Data and result of test of significance of difference between the mean post-test scores of vocabulary

test in experimental group and control group

Variable	Sample	Sample size	Mean	Standard deviation	t-value	Level of significance
Post-test	Experimental group	32	30	6.48	7.980	Significant at 0.01 level
	Control group	32	16.06	7.46		

The table shows that the obtained 't' value is 7.980, which is above the limit set for 0.01 level of significance. So there is significant difference in the mean scores of test of vocabulary in experimental and control group. This indicates that the experimental group is superior in the English vocabulary skill than the control group as a result of

graphic organizer.

Comparison of mean performance of the experimental and control group on gain scores.

The mean gain scores between experimental and control group was studied using the test of significance of difference between means.

Table 3 Data and results of the test of significance of difference between mean gain scores of experimental group and control group

Variable	Sample	sample size	Mean	SD	t- value	Level of significance
Gain scores	Experimental gain	32	13.93	9.26	5.20	Significant at 0.01 level
	Control gain	32	0.62	11.12		

The analysis by the test of significance yielded a 't' value of 5.20 for the mean difference between the gain scores of the experimental and control group. This is above the value set for 0.01 level of significance. This indicates that the mean gain scores of experimental and control group shows significant difference. This vividly reveals that a true difference exists between English vocabulary skill of the experimental and control group. Thus it substantiates the fact that the treatment given to the experimental group has significant effect up on development of vocabulary in English.

The result of the test of significance of difference between the mean gain scores of the experiment and control group clearly show that there is a significant increase in the mean scores of experimental group when compared to that of the control group. This is the result of the use of graphic organizer to the development of the vocabulary in English of college students employed by the investigators in the experimental group for the period of treatment phase.

Table 4 Summary of the t-value for the pre-test, post-test and gain scores

Serial no	Variables	t-value	Level of significance
1.	Pre-test	0.30	NS
2.	Post-test	7.98	0.01 level
3.	Gain score	5.20	0.01 level

NS-not significant

This section gives the result in more detail and outlines the effect of graphic organizers on the vocabulary building skill of college students. From the quantitative data analysis it is evident that the 't' value obtained for the pre-test is found to be not significant even at 0.05 level of significance. It indicates that there was no significant difference in pre-test scores of experimental and control group. From this we can conclude that English vocabulary skill of both groups were almost identical before the treatment. That means, the two groups were homogenous.

After the experimental treatment the 't' value obtained for the post-test is found to be significant at 0.01 level of significance. The post test showed higher score in the experimental group. That is, there is an indication that the post test scores differentiate the two groups. This result

DISCUSSION

further reveals the favorable influence of treatment variables in the experimental group. Thus this proves that, the graphic organizer has significant effect on the development of English vocabulary in comparison with existing traditional method of vocabulary instruction.

Again the 't' value obtained in the mean gain scores is found to be significant at 0.01 level of significance. It indicates the superiority of the experimental group over the control group in English vocabulary building and proves that the graphic organizers used for experimental group have its effectiveness on vocabulary building in English. Hence, the effectiveness of graphic organizer in the development of vocabulary in English is fully confirmed.

This positive result could be attributed to two reasons. First, using the graphic organizer strategy might have enabled those students to develop their vocabulary building through a visual representation, not by rote learning of separate abstract concepts. The second reason is that learning all the eight vocabulary features might have broadened those students's knowledge of the different vocabulary items they encountered and enhanced their skills of acquiring that knowledge when needed. This is most important because students in the traditional instruction memorized vocabulary items with their meanings in the first language only without considering any other features.

CONCLUSION

It can be concluded from the present study that the classes based on using graphic organizers in vocabulary instruction proved to be effective in developing the experimental group's vocabulary building skill. The results of the study suggested that graphic organizer strategy was more effective than the traditional instruction in developing vocabulary building of college students. It also revealed that the graphic organizer strategy achieved incremental growth in those students's vocabulary building over time. Majority of the experimental group indicated that they enjoyed working with graphic organizer charts. From the above it can be concluded that the study based on the graphic organizers was effective in helping them to develop their vocabulary building

skill. Thus study revealed that Graphic Organizers are more effective for developing vocabulary in English among college students. Yet these conclusions need further research where the graphic organizer strategy can be incorporated in to the different language courses at the university level. Another research area of interest may be replicating this study with increase in the sample size for an extended period of time, or replicating it with other sample types of students such as school students, struggling students and disabled students in addition to male students as opposed to female students, or children as opposed to adults.

EDUCATIONAL IMPLICATIONS

The results of the study suggested that the graphic organizer strategy was more effective than the traditional instruction in vocabulary developing skills of degree students. It also revealed that the graphic organizer strategy achieved incremental growth in those students' vocabulary building over time. After analyzing the results of this research, it can be concluded that students show more growth in writing new vocabulary when using a graphic organizer. The use of graphic organizers at the college level did have a significant influence on students' vocabulary learning. The tasks given at the English language classes promote higher level of thought processes when a graphic organizer is used. It is found to be very helpful them to use new vocabulary in their everyday speech with ease and understanding.

The findings of the study revealed some advantages of graphic organizers when they become a part of daily teaching.

1. Classes are more varied and dynamic.
2. Various forms of graphic organizers are useful for language teaching and learning.
3. Graphic organizers make the students more enthusiastic in learning process.
4. It makes the teaching learning process clearer and more communicative.

The findings of this study have indicated that the use of graphic organizer strategy results in students' motivation in English language classes. Thus the strategy should be incorporated into the teaching of English at college level. This in turn would develop students' motivation to learn English. Curriculum

developers in their efforts to improve the effectiveness of English language learning should encourage the use of graphic organizers. Teachers should also make use of graphic organizers as a part of their curriculum transaction.

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