THE USE OF MIND MAPPING TECHNIQUE IN INCREASING STUDENTS' VOCABULARY LIST

Azura Binti Abdul Aziz
Faculty of Education
National University of Malaysia,
43000 Bangi, Malaysia
Email : teacherzura@gmail.com

Hamidah Bt Yamat @ Ahmad
National University of Malaysia,
43000 Bangi, Malaysia
Email : hamidah_yamat@ukm.edu.my

ABSTRACT

Vocabulary is central to English language teaching and learning because without sufficient vocabulary students cannot really understand others or express their own ideas, opinions and creativity. It is very beneficial to learn vocabulary since vocabulary is an important thing in communication. Everybody who learns English or a certain language should know the words and the meaning of it. If the students do not know and understand the meaning of words, they will not be able to speak, write and translate anything in English. Thus, without good vocabulary skills the students could not come out with a good writing and excellent result in English Language Examination. This vocabulary component is equally important to enable students to do well in the examinations and in their job situation later in their real daily life. For that, a strong effort should be made to enable students to be better in their vocabulary skills. Without good vocabulary skills students could not perform better in class. The aim of this study are to identify whether or not the use of mind mapping technique increase the vocabulary list of the students and to know the difference in vocabulary list increment among the students. The quasi experimental research study employed pre and post test for both control and experimental group to collect data from 38 samples of Year 6 UKM students of SK Telok Kemang, Port Dickson, Negeri Sembilan. This intervention programme held for 4 hour training programme which is stretched for four weeks. The study found that mind mapping technique helped to improve students' vocabulary list. Therefore the study implies that the intervention programme of using mind-mapping to improve students' ability in increasing students' vocabulary list and get the better band mark for that section has a tremendous positive impact on the samples as compared to chalk and talk method.

Key words: Mind mapping, increasing, vocabulary list

Introduction

Learning vocabulary is very important since vocabulary is an important thing in communication. Vocabulary is central to English language teaching because without sufficient vocabulary students cannot understand others or express their own ideas. Particulary as students develop greater fluency and expression in English, it is significant for them to acquire more productive vocabulary knowledge and to develop their own personal vocabulary learning strategies. Therefore, this article presents and discusses a part of the study on "The Use Of Mind Mapping Technique In Increasing Students' Vocabulary List".

Research Background

One of the key indicators of students' success in school, on standardized tests, and indeed, in life, is their vocabulary. The reason for this is simply that the knowledge anyone has about a topic is based on the vocabulary of that information (Marzano & Pickering, 2005). Until now vocabulary is still the main contributing factor for students to do well in their English paper. Neill (1982) conducted a survey of 425 school districts and found that 90 percent of the respondents considered student vocabulary to be a problem either a serious problem (40 percent) or a minor problem (50 percent).

Students should have certain knowledge on vocabulary. Students occasionally have a qualification in speaking but they have less vocabulary competence. Therefore, those students are not able to express their idea in writing essay because they are not good in vocabularies. The aesthetic of the students' vocabulary is influenced by teaching method or technique. Teaching technique of vocabulary is needed in order to encourage students' ability and enhance their interest in writing or reading class. Interesting technique is able to create the good atmosphere in classroom learning process. So, the students can improve the way of learning smartly without any difficulties they may face.

For the reason mentioned above, some linguists state that the success of the teacher is often measured by the accuracy of method and technique they apply. The use of mind maps to aid vocabulary building is an effective way to help students learn vocabulary. It gives them an alternative way to memorize new words instead of rote memorization. Students gain more confidence in using English after the introduction of mind maps. They will be interested in exploring how to adopt mind-mapping in regular lessons.

To enhance the skills for the development of word banks, follow-up exercises may be given to students for reinforce what they have learnt through their mind maps.

Research Problem

Vocabulary is one of the most comprehensive and difficult aspects of English for second language learners to master thoroughly. Students can have various difficulties and problems in learning English. The greatest problem among them all was their ability to remember key vocabulary words in English. Most of the students had a firm grasp on the English language and could speak it fairly fluently, but they struggled when they were assigned to respond to an article, read a novel, or write their own essay. According to the report from the Malaysian Examination Syndicate (2002) on UPSR English Paper, students were not doing well in their writing because of the weaknesses in their vocabulary list. Some of them are able to construct simple sentences, but when it comes to compound and complex sentences or the terms they have to use they failed to write a good one because they do not remember the vocabulary words. This will affect their marks and as a result they will get lower mark and they also can fail their paper.

Table 1 : The Indicators band of English Vocabulary List

Marks	Band
1 - 3	Low achievement (LO)
4 - 8	Satisfactory (ST)
9 - 12	Good (GD)
12 - 15	Excellent (EX)

The same findings found in SK Telok Kemang, Port Dickson, Negeri Sembilan. The year 6 UKM students are very weak in their writing because of their vocabulary list. Based on Post Mortem of UPSR Result (2014) the students cannot give the reasons why they choose the items because they do not know what reasons to give due to the lack of terms and vocabularies that they have to use. They always get lower band marks in this part in every test that they sat for. They also cannot write well. They do not know what to write actually. They cannot do well in writing due to a few reasons. One of the reasons is their mother tongue is not English so, it is quite difficult to accept something that not familiar in their daily life. They never use English at home or other occasions. They do not master the writing skills as expected in the UPSR assessment because of the lack of vocabulary words. They just learned at school with limited of time. When they went home, they use their mother tongue to communicate. They have to acquire the vocabulary skills in order to get a good result in their UPSR examination. It is necessary for them to master these vocabulary skills.

 The research gaps for this study are there is no much research has been done for the use of mind mapping technique in increasing student's vocabulary list. Most of the studies and aspects have been done were just for the secondary and university level. The mind mapping technique in increasing students' vocabulary list in the studies are not explored yet are for the primary student. This research is going to find out and gathered how mind map can increase the vocabulary list by students. So, that is why I recommended doing this research. Therefore, the purpose of this study is to explore the use of mind mapping in increasing students' vocabulary list. This paper should shed some light and provide ground information for future research in the technique use in increasing vocabulary list for students.

The objectives of the research are:

1. To identify whether or not the use of mind mapping technique increase the vocabulary list of the students.

2. To know the difference in vocabulary list increment among the students.

Based on the statement problems, the researcher has formulated the following questions as guidelines of the study and they are as follows:

1. Does mind map increase students' vocabulary list?

2. What is the difference in vocabulary list increment between the four groups of students?

Literature Review

Vocabulary

Teachers use different strategies to facilitate vocabulary acquisition. For example, they may provide explicit explanations and synonyms of the words, or use role-plays or multi-media to increase exposure. Some articles and books have shown positive relationships between vocabulary learning strategies and learning outcomes, Gu (2010) and researchers have studied the nature

of the former in this connection. Students often use repetition as an important procedure for vocabulary acquisition, Ellis & Beaton (1993). However, learning vocabulary by reciting words is painful and ineffective, Li, Yang & Chen (2010). Memory strategies which were regarded as powerful mental tools have also been studied. As illustrated by Sozler (2012), to enhance the effectiveness of learning, students have to be trained about memory strategies and encouraged to apply them throughout the process.

Mind Mapping Strategy

The mind mapping strategy is one of the teachers' strategies in teaching. Not only Mind Maps show facts, but also show the overall structure of a subject and the relative importance of individual parts of it. It helps students to associate ideas, think creatively, and make connections that might not otherwise make, Tony Buzan (2010). As Alamsyah (2009) explained that Mind maps work well as their visual design enables students to see the relationship between ideas, and encourages them to group certain ideas together as they proceed. Mind maps work especially well when created in groups, since the discussion this engenders aids the production of ideas, and makes the task livelier and more enjoyable. Students can improve their ideas and lend themselves to discussing ideas in groups.

Mind Mapping In Vocabulary List

Mind mapping as a vocabulary technique or strategy goes by a variety of names: "Mind Mapping", "clustering", "bubbling", "clumping" or "webbing". They refer to the same concept. It was developed in the early 1970s by Tony Buzan as a tool to help people take notes more effectively, Wycoff (1986). Mind mapping is creative note-taking method, which eases us to remember much information cited by De Porter, Readon, and Nourie (1999: 175). The best mind mapping is colourful and used much pictures and symbols; usually like an art. Buzan (1993: 1) states that mind mapping is a powerful graphic technique, which provides a universal key to unlock the potential of brain. Recording the information through symbols, pictures, emotional meaning and colours, exactly the same like our brains process it. A pattern which at least consists of picture, symbol and color that will not just help the students to understand the vocabulary knowledge but also makes the students feel good, enjoyable and attract their brain which at last lead them to have interest in mastery vocabulary knowledge.

Vocabulary is an important part of language learning activities. It includes all the words that normally used when the other language skills are learned. Learning vocabulary does not mean learning word isolation. Word should be learned in context because a word may have different meaning in different context. In fact, word in isolation frequently does not match with the intended meaning, the meaning of the word will be depended on the context itself. This idea is supported by French (1983: 1) by saying that to know the English words and their meaning would be useless, unless someone know how the words put together meaningfully in a sentence. On the other hand, vocabulary growth is based on the students' experiences. Words must be associated with the meaning in order to be useful for communication.

Conceptual Framework

The independent variable in this study is the Year 6 UKM students and the teacher's knowledge would also be measured as the independent variables in this research. The intervening variable is the 4 weeks training programme as proposed in this study. The dependent variables are the students' scoring in both tests.

The framework is best described as follows:

Figure 1 : Input-Process-Output Theory : Adapted from Bartol & Martin (1994)

INPUT	PROCESS	OUTPUT
Teacher's Knowledge	Mind Mapping (characteristics) - The subject is crystallized in a central image - Branches hold a keyword - Colourful - simple	Vocabulary list (Increase or decrease)
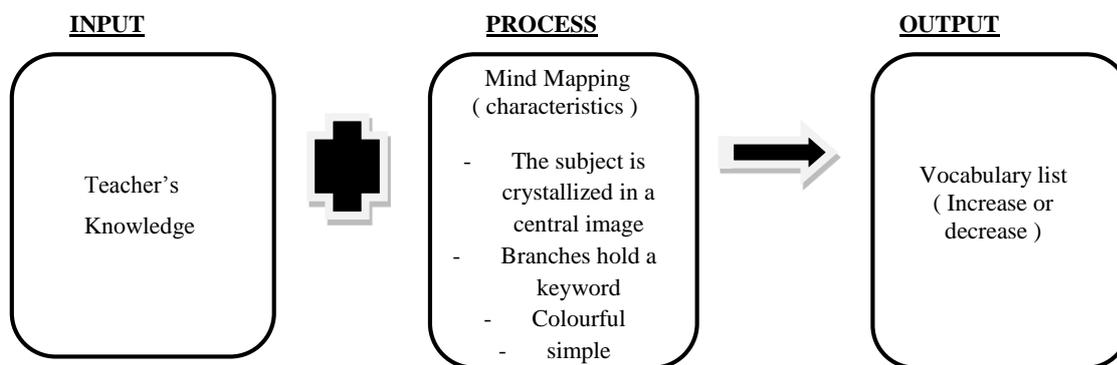
The input process output diagram is a graphical representation of all the factors that make up a process. An input-process-output diagram includes all of the materials and information required for the process, details of the process itself, and descriptions of all products and by-products resulting from the process. In the above system the input or the variables are the year 6 UKM students and the teacher's knowledge for experimental and control group. The students are having problems in vocabulary list in learning English. The chosen process to remedy the problem is using mind-mapping in increasing their vocabulary list. The expected output is students' performances achievements in giving the exact vocabularies as much as they can use a mind mapping technique to the topic given to them. The results are from pre test and post test.

Methodology

This study uses a Quasi Experimental Research Approach. It adopts the two groups of quasi experimental design. The study attempts to identify the use of mind mapping technique in vocabulary among groups. This quasi experimental research is form of simple descriptive statistics. The collected quantitative data is acquire from the pre test and post test to measure the differences in performance of samples for both tests according to the total of the vocabulary list that they can give in both tests given to them. .

The samplings are the year 6 UKM students of SK Telok Kemang, Port Dickson, Negeri Sembilan. There will be 38 students involved in the study which will comprise of 18 females and 20 males students. The samples are taken by using Purposive Sampling. The subjects are selected because of the same characteristics. In this study, it means that only one class, 6 UKM are taken as a sample. They will be divided into 2 groups that is experimental group and control group. Basically they are considered weak or below average in their English subjects because of their vocabulary knowledge. It was clearly seen from their examination result for English language. Most of them got B and C for the examination.

The research instrument use consists of pre-test and post-test.

1. Pre-test will be given to the students to check their ability in English vocabulary before applying mind mapping technique.

2. Post-test was given to the students to know their English vocabulary ability after applying mind mapping.

The researcher sent a consent letter to the headmaster of the school to get the permission to carry out this research in SK Telok Kemang, Port Dickson, Negeri Sembilan. After getting the approval from the Headmaster of SK Telok Kemang, the respondents were briefed on the aim of the study and their roles in the coming weeks. The samples sit for the pre-test. Discussions focus on the propose training schedule that is 4 hour training programme which is stretched for four weeks. At the end of the session, the respondents were asked to sit for their pre-test. The duration of the pre-test will be in 15 minutes. After that, the subjects will be introduced to the intervention programme and the programme last for four weeks. Four lesson plans lasting 60 minutes each will be designed for the entire intervention programmed. At the end of the programme, the samples sit for the post-test. Training begin the following week on Wednesday from 12.00-1.00 p.m. was implemented for another four Wednesdays at the prescribe time. At the end of the training schedule, a post-test was administered.

Data Analysis

The collected quantitative data was acquired from the pre test and post test to measure the use and the differences in performances of samples for both tests according to the total of vocabulary list that they can get from both tests. The score for pre-test and post- test will be keyed in. The presentation of the data complement the quantitative data obtain in the study. The data of the score that the students of 6 UKM get from their pre test and post test will be shown in the table. A conclusion will be made based on the collection of data.

Validity and Reliability

To consider the reliability in this study, the researcher uses one set of question. It will be test and retest consistency. It will be no change of topic in underlying condition between pre test and post test. In order to keep the validity of this research, the experimental group will be following the programme in the computer lab and will be separated for the whole intervention programme from the control group. The control group will be learning as usual in the classroom. The experimental group will be learning this programme with an experience teacher while the control group will be learning with the new posting teacher. Both teachers have an agreement that the teacher with experimental group will be using the mind technique and the other teacher will not be using a mind mapping technique at all in the classroom.

Findings

Data collected from the pre and post test transformed into the tables and graphs. The total of 38 samples from the control and experimental groups took part in these tests. This study attempted to prove that the 4 weeks intervention programme has a positive impact on students' performances in the post test as compared to their performances in the pre test. The intervention was effective so that there would be a significant different between the band marks of the pre test and the the post test. The band marks can significantly proved that the marks were different and the score showed that the marks of the post-test was greater than the pre test, then there was a significant evidence that the intervention programme had increase the students' vocabulary list.

RESEARCH QUESTION 1 : Does mind map increase students' vocabulary list?

Table 2: Pre Test and Post Test Analysis For Control and Experimental Group

Samples	Pre Test	Band	Post Test	Band	Increment
1	2	Low	3	Low	1
2	3	Low	4	Satisfactory	1

3	2	Low	3	Low	3
4	4	Satisfactory	6	Satisfactory	2
5	3	Low	4	Satisfactory	1
6	1	Low	3	Low	2
7	2	Low	3	Low	1
8	4	Satisfactory	5	Satisfactory	1
9	4	Satisfactory	6	Satisfactory	2
10	4	Satisfactory	5	Satisfactory	1
11	4	Satisfactory	6	Satisfactory	2
12	2	Low	4	Satisfactory	2
13	2	Low	3	Low	1
14	2	Low	4	Satisfactory	2
15	4	Satisfactory	5	Satisfactory	1
16	4	Satisfactory	5	Satisfactory	1
17	4	Satisfactory	5	Satisfactory	1
18	4	Satisfactory	6	Satisfactory	2
19	1	Low	3	Low	2
20	4	Satisfactory	9	Good	5
21	2	Low	9	Good	7
22	2	Low	6	Satisfactory	4
23	3	Low	10	Good	7
24	2	Low	5	Satisfactory	3
25	5	Satisfactory	10	Good	10
26	5	Satisfactory	13	Excellence	8
27	2	Low	9	Good	7
28	4	Satisfactory	10	Good	6
29	2	Low	9	Good	7
30	6	Satisfactory	13	Excellence	7
32	3	Low	10	Good	7
33	5	Satisfactory	10	Good	5
34	3	Low	9	Good	6
35	2	Low	11	Good	9
36	3	Low	10	Good	7
37	5	Satisfactory	14	Excellence	9
38	4	Satisfactory	13	Excellence	9

Control Group ▭ (yellow)
Experimental Group ▭ (blue)

Table 3 : Analysis of Band Mark on Pre Test and Post Test For Control Group

Test	Band Mark			
	Low	Satisfactory	Good	Excellence
Pre Test	10	9	0	0
Post Test	6	13	0	0

Table 4 : Analysis of Band Mark on Pre Test and Post Test For Experimental Group

Test	Band Mark			
	Low	Satisfactory	Good	Excellence
Pre Test	10	9	0	0
Post Test	0	2	12	5

Graph 1 : The increment of students' band mark for pre test and post test for Control Group.
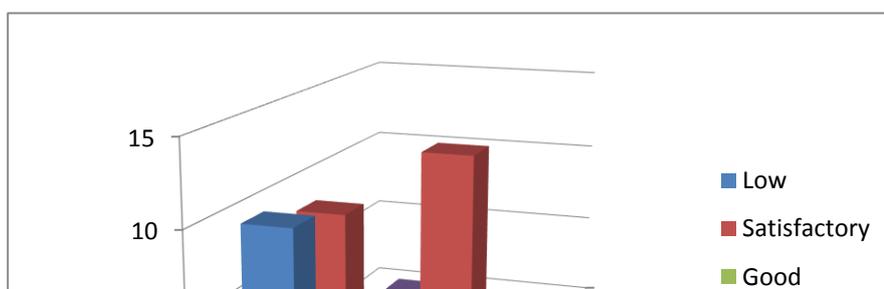
Type of Test	Band Mark	Number of Samples	Percentage

Graph 2 : The increment of students' band mark for pre test and post test for Experimental Group.
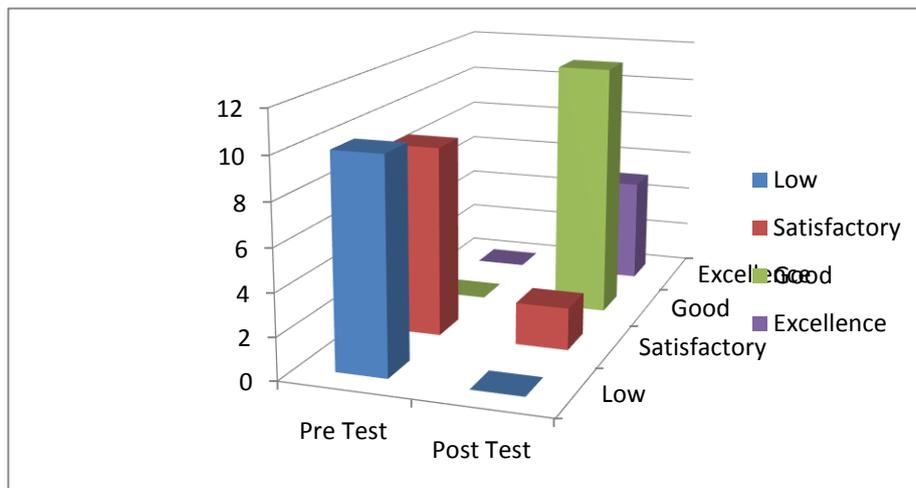

Table 2,3 and 4 shows the scores of the samples in the pre test and in the post test for both groups. Based on the tables and graphs, it can be seen that most of the students in this research which carried out the programme had a moderate achievement after the first test (Pre-Test). This is because in the pre test out of the 38 students, 20 of them had low band marks while 18 students out of 38 got satisfactory band marks. While in the post test, the experimental group had shown their good performance when out of the 38 students, 6 of them had low band marks while 15 students out of 38 got satisfactory band marks, 12 of them got good band marks and 5 of them got excellence band marks. Graphs 1 and 2 also shows the increment of students' band mark for pre test and post test for both control and experimental Group.

RESEARCH QUESTION 2 : What is the difference in vocabulary list increment between the four groups of students?

Table 5 : Analysis on Percentage in Band Mark of Pre Test and Post Test For Control and Experimental Group

Type of Test	Band Mark	Number of Samples	Percentage
Pre Test	Low	20	52%
	Satisfactory	18	48%
	Good	0	-
	Excellence	0	-
Post Test	Low	6	15%
	Satisfactory	15	40%
	Good	12	32%
	Excellence	5	13%
Pre Test	Low	20	52%
	Satisfactory	18	48%
	Good	0	-
	Excellence	0	-
Post Test	Low	6	15%
	Satisfactory	15	40%
	Good	12	32%
	Excellence	5	13%

Graph 3 : The percentage of band mark for pre test and post test.
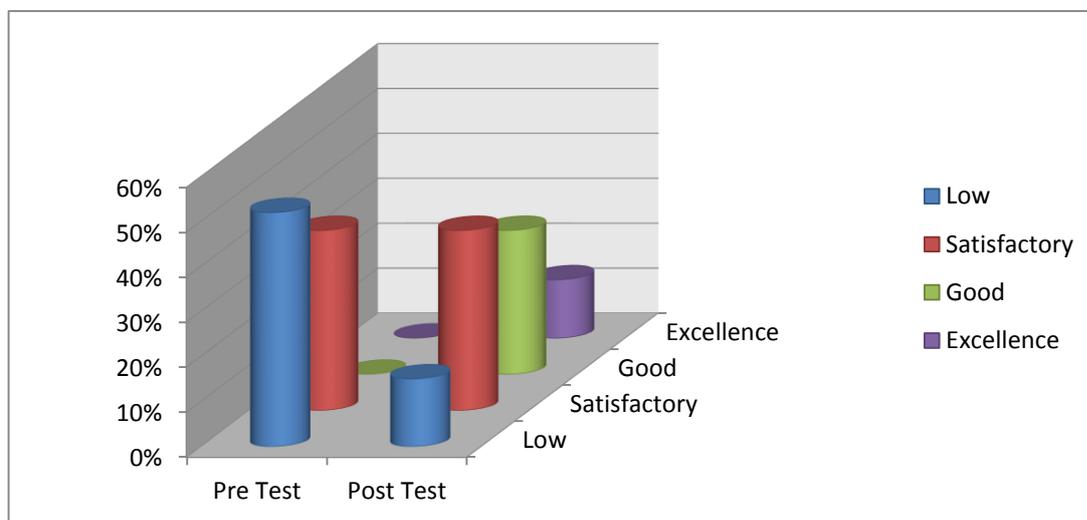
Based on the above tables and graphs, it can be seen that most of the students in this research which carried out the programme had a moderate achievement after the first test (Pre-Test). This is because in the pre test out of the 38 students, 20 of them had low band marks while 18 students out of 38 got satisfactory band marks. There was an increase in the Post-Test for those who got low band and satisfactory band marks in answering post test question using the right method through the mind mapping activities. This was perhaps due to the fact that the teacher had many items rectified in her teachings and to see the increasement she carried out for the second test (Post-Test).

Table 5 and graph 3 shows the scores of the samples in the pre test and in the post test and their band marks for both control and experimental group. In the pre test, it showed that students who got low band were 52% (20 students) while satisfactory band were 48% (18 students). In the post test, there were 6 students who get the low band marks. 40% of them (15 students) got satisfactory band while 32 % of them   (12 students) got the good band marks. There were 5 students who got the excellence band marks in the post test. It shows that there is an improvement on their band marks. It also portrayed an improvement in the individual score in comparison to both tests. The maximum band mark in the pre test is low band and the maximum band mark for the post the post-test is excellence. The value of the maximum band mark for the pre test is 3 and the value of the high mark for the post test is 12. The data shows an increasement in the maximum mark in the post test.

Discussions and Implications

The researcher hopes that the result of this research can give information about the level of the students' vocabulary list and the researcher hopes that by using mind mapping in teaching vocabulary will be useful for the teachers, the students and the researcher.

1. For the teacher

The result of this research can support the English teachers to apply this method in teaching vocabulary and teachers can change their ancient methods to the new methods that more interesting.

2. For the Students

The result of this research can motivate the students to improve their vocabulary skills. Teaching vocabulary through mind mapping can make the students relax and fun in follow teaching learning process.

3. For the Researcher

The researcher will understand more about mind mapping and the researcher will know deeply about teaching vocabulary using mind mapping.

Syahrudin (2004) states that " Vocabulary is a process through which meaning is created". Vocabulary as one of language elements which functions not only to support the use of the other elements of language (pronunciation, spelling, and grammar) but also to facilitate the use of the four language skills (listening, speaking, reading, and writing). Learning vocabulary is one important matter in learning language but it is not a simple work to do. The bad score on vocabulary found in the students' achievement does not mean that there are no efforts to solve the problem. Both teachers and students have tried to apply various strategies and techniques in teaching and learning vocabulary. However, there are many factors assumed to give influence in teaching and learning process such as students' characteristics, materials, teachers' character, etc. The students who have little knowledge of vocabulary will face some difficulties to understand the written language and oral language. Dellar and Hocking (in Thornbury, 2002: 13) said if you spend most of your time studying grammar, your English will not improve very much.

The study reveals that the intervention programme of using mind-mapping to improve students' ability in increasing students' vocabulary list and get the better band mark for that section has a tremendous positive impact on the samples as compared to chalk and talk method. Analysis of the individual scores shows that there is an increase in their scores in the post test as compared to the pre test. In addition to that there is a significant difference   in incremental of scores of subjects between and within groups. There is an improvement in their band marks in the post test as compared to the pre test. Comparison shows that samples in experimental group (after post test) performed well as compared to samples in the control group (before pre test). There were also marked differences in scores between groups as compared to the minor differences in scores in the pre test.

This study strongly recommended that this technique (mind-mapping) is used to increase students' vocabulary list especially in sentence construction. Building sentences must be improved significantly among the students in order to help students to do well in writing. One of the many ways to improve sentence construction is to propagate the use of mind-mapping. The intervention programme was designed to train students to use mind-map to prompt them to think and solving problems together and as guidance to increase their vocabulary list. The findings of the this study provide significant input to teachers and language practitioners on the importance of using mind-mapping for better understanding in vocabulary.The study provides an avenue for teachers to be more creative in finding alternative and cheaper means to improve students' performances in vocabulary list and also language learning. The ability to write to provide a good vocabulary is an important skill for students in English Language classrooms. Because of the importance of the understanding in vocabulary, effort must be made to improve students' vocabulary list by using the mind-mapping skills.

The study concludes that the use of mind-mapping has a significant impact on the students' performances in vocabulary list. Undoubtedly, results gained from the quantitative data are clear empirical evidence that the programme works effectively. The test scores indicate a marked and significant improvement of the students' performances in that question. The students believed that the programme helped them in their efforts in providing vocabulary list in sentence construction and simple essay writing.

From the band marks that they got in pre and post test sessions, it can be concluded that the students have higher motivations and more confident in vocabulary list via the mind-mapping thus improving their writing performances. They obtained better scores band mark in post test as compared to earlier performances. They also strongly believed that the programme helped them in their writing abilities because of the increasement of their vocabulary list. To a certain extend, this school-based research can be considered a success. It has proven mind-mapping strategy has helped students to increase their vocabulary list.

This research achieved success owing to a few factors. Firstly, the samples were given full expose on the techniques of mind-mapping. This research took over a total of 4 hours of teaching, and showing them the advantages as well as mechanism of the strategy. So, they were fully and mentally prepared to apply the strategy in their lessons. Next, the samples were given the opportunity to see and observe the strategy being carried out in a lesson as the experienced teacher had modeled for them. So, their understanding of the matter was deeper due to hands-on experience and first-hand experience. At the end of this session, the target group was given the opportunity to ask and clarify and doubts. Questioning activities were encouraged and welcomed. Each doubt was cleared as the researcher took the time to explain in details. So, the group was well-versed with mind-map strategy and the means to obtain benefits from it.

This study had proven that if the teacher makes extra steps to improve their teaching practice in the classroom, the students are also benefited from the effort. Teachers in the classroom should be more creative and innovative giving themselves some rooms for improvement. Teachers should regard their class as their own autonomy therefore they are free to explore and ventures new ideas and be as innovative as possible. The findings of this study portray that teachers should use the mind-map technique to the students in increasing students' vocabulary list to enhance their writing skills. Thus mind-mapping technique can be used in the writing class. It is not only improves their vocabulary list but also motivated them to do the writing tasks. Consequently, they will be able to perform well in their written tasks.

This quasi experimental research placed its focus on the use of Mind Mapping skills to increase students/ vocabulary list. This study has proved to provide meaningful data for this researcher. Yet the results of the study should also be complemented by those of further studies. First, the study could be replicated with different levels of students, e.g. year 5 students, so that the use of Mind Mapping skills in vocabulary list could be further validated. If possible, the study could be carried out with a larger sample population so that the generalizability of the study can be increased. Second, future studies should examine other planning strategies that could also benefit students' vocabulary list as well as when students would apply these strategies in the writing process. As Flower & Hayes (1980) point out, planning is important in the vocabulary process as it enhances the quality of writing. A comparative study of the use of different planning strategies in vocabulary might further shed light on the issue. In fact, the current research could continue and extend over a longer period of time to see if students would have a sustainable or gradual improvement in their vocabulary list with the prolonged use of Mind Mapping in their planning.

Mind mapping allows the students to clarify their thoughts by categorizing and grouping into related ideas. It starts with the students' main topic or the theme as the central idea and allows the main branches of mind mapping to represent the main points of their thought (right brain) then combined by the interesting colours and images (left brain) which will stimulate the brain. Thornbury (2002) said that acquiring a vocabulary requires not only labelling but categorizing skills. The writer chooses mind mapping as a technique to help the students in memorizing the words which are expected in improving their vocabulary proficiency by memorizing easily. The current study explored the effectiveness of using Mind Mapping as a kind of composition instruction in second language learning classrooms. This research provides information and suggestion which can be helpful in establishing the importance of mastery English vocabulary skill using the mind mapping technique. Furthermore, the research is really expected to provide contribution and recommendation to break the crucial problems faced by English teacher in teaching English. It is also hoped that findings from the research will provide significant input to teachers and language practitioners about the use of mind-mapping to assist students in order to get the higher marks in their UPSR examination.

The researcher also believes that the study will pave the way for teachers to be more innovative in identifying alternative and means to enhance students' performances in language learning. The finding of the study can be shared among teachers at district level, state level and national level. In addition, this research showed the performance of the teachers' dedication towards the improvement of the student's vocabulary skill.

References

Brinkmann, A. (2003). *Graphical Knowledge Display: Mind Mapping and Concept Mapping as Efficient Tools in Mathematics Education.* Mathematics Education Review, 16, 35-48.

Buzan, T. (1976). *Use Both Sides of Your Brain.* New York: E. P. Dutton & Co.

Buzan,T., &Buzan,B. (2000). *The mind map book (Millenium Ed.).* London: BBC Books.

Buzan, T. 2004. *Mind Map Untuk Meningkatkan Kreativitas*, Jakarta: Gramedia Pustaka Utama.

Budd, J. W. (2003). *Mind Maps as Classroom Exercises.* Minnesota: University of Minnesota.

Celik, S. &Toptas, V. (2010). *Vocabulary learning strategies of Turkish EFL learners*. Procedia – Social and Behavioral Sciences, 3, 62-71.

Dahar, R, W. 1989. *Teori-Teori Belajar*, Jakarta: Erlangga.

Ellis, N., & Beaton, A. (1993*). Factors affecting the learning of foreign language vocabulary: Imagery keyword mediators and phonological short-term memory.* Quarterly Journal of Experimental Psychology, 46A.553-558.

Gu, Y. (2010). *Learning Strategies for Vocabulary Development. Reflections on English Language Teaching*, vol. 9, no. 2, pp.105-118.

Harmer. Jeremy. 2001. *The Practice of Language Teaching 4th ed.* New York: Pearson Education Limited.

Harmer. Jeremy. 2002. *The Practice of Language Teaching,* New York: Pearson Education Limited.

Li, M., Yang, Y., & Chen, H. (2010). *Using Mind Maps as a Strategy for Vocabulary Acquisition in Chinese Universities. In Computational Intelligence and Software Engineering (CiSE),* 2010 International Conference on (pp. 1-3). IEEE.

Murdiono (2002) *Qualities Of Effective Writing Process. Urbana, IL: ERIC Clearinghouse on Reading and Communication Skills.*

Murley (2007), *'Joining Mind Mapping and Care Planning to Enhance Student 2wqa2   Thinking and Achieve Holistic Nursing Care'.* Nursing Diagnosis

Neill, S. B (1982) *Teaching Vocabulary : Problems And Solutions Arlington*, VA: American Association of School Administrators

Nunan, David.(1995) *Language Teaching Methodology*. New York: Prentice Hall International.

Richard, Jack. C and Renandya, Willy. A (2002) *Methodology in Language Teaching, an Anthology of Current Practice.* New York: Cambridge University Press.

River (1991) *Theories of Teaching in Language Teaching.* In J. C.Richards & W.

Schmitt (2010). *Mind-mapping in the EFL classroom*. Fontys Hogescholen: Fontys Teacher Training College Sittard.

Syahruddin (2004) *Qualities Of Effective Writing Process*. Urbana, IL: ERIC Clearinghouse on Reading and Communication Skills.

Thornbury (2002), *'Research on how Mind Map improves Memory'.* Paper   presented at the International Conference on Thinking, Kuala Lumpur