TRIADIK,
VOLUME 16, No.1, APRIL 2017: 55-65

DEVELOPING STUDENTS' SPEAKING COMPETENCE BY USING SEMANTIC MAPPING THROUGH COLLABORATIVE LEARNING TECHNIQUE

Syafrizal, Safnil, I Wayan Dharmayana
University of Bengkulu
Email: Syafrizalichan@gmail.com, Safnil@unib.ac.id, dharmayana@unib.ac.id

Abstract: Semantic mapping has been demonstrated as practical teaching and learning technique for students at all grade levels. However, its use for speaking class has been relatively unexplored. The objective of this study is to investigate the influence of semantic mapping as a technique to improve students' speaking ability. The research design of this study was quasi experimental design. The population comprised the seventh grade students of SMP Taba Renah, Musi Rawas in the academic year of 2015/2016 and the sample consisted of 44 students. The data were collected via test, observation and interview. In analyzing the data, for the pre-test it was found that there were not significant differences in speaking competence and its components in experimental and control class because $P > 0.05$. For the post-test, it was found that for total speaking competence P-value is 0.018, for vocabulary in speaking P-value is 0.001, for fluency in speaking P-value is 0.033, for pronunciation in speaking P-value is 0.060, and for grammar in speaking P-value is 0.348. So, there were significant differences in experimental & control class in vocabulary and fluency aspects because $P < 0.05$ but there were not significant difference in pronunciation and grammar aspects because $P > 0.05$. The finding shows that semantic mapping as technique is effective to be implemented in teaching English to improve students' speaking ability, especially in vocabulary and fluency aspects but it is not in pronunciation and grammar.

Keywords: Semantic Mapping; speaking competence; language learning.

PENGEMBANGAN KEMAMPUAN SPEAKING DENGAN MENGGUNAKAN PETA SEMANTIK MELALUI TEKNIK BELAJAR KOLABORATIF

Abstrak: Semantik mapping telah digunakan sebagai sebuah teknik belajar mengajar untuk seluruh siswa di semua level. Namun, kegunaannya di dalam pengajaran speaking relatif belum tereksplorasi. Tujuan dari penelitian ini adalah untuk menginvestigasi pengaruh semantik mapping sebagai sebuah teknik untuk meningkatkan kemampuan speaking siswa. Penelitian ini menggunakan desain quasi-eksperimen. Populasinya merupakan siswa kelas tujuh SMP Taba Renah, Musi Rawas tahun pelajaran 2015/2016 dengan sampel yang terdiri dari 44 siswa. Data diambil dari tes, penelitian, dan wawancara. Dalam pengolahan data, untuk pre-test ditemukan bahwa tidak ada perbedaan yang signifikan di di seluruh komponen speaking sebelum dilakukannya penerapan antara kelas eksperimen dan kelas kontrol karena $P < 0.05$. Sedangkan pada hasil post-test, ditemukan bahwa hasil kemampuan speaking secara keseluruhan memiliki taraf signifikan 0.018, kosakata dalam berbicara memiliki taraf signifikan 0.001, kelancaran dalam berbicara memiliki taraf signifikan 0.033, pengucapan dalam berbicara memiliki taraf signifikan 0.060 dan tata bahasa dalam berbicara memiliki taraf signifikan 0.348. Jadi, ditemukan adanya perbedaan yang signifikan antara kelas eksperimen dan kelas control di dalam kemampuan kosakata dan juga kelancaran karena $P < 0.05$, namun dalam hal pengucapan dan tata bahasa tidak ada perubahan yang signifikan karena $P > 0.05$. Hasil ini menunjukkan bahwa sebagai sebuah teknik, semantik mapping efektif diterapkan dalam pengajaran bahasa Inggris untuk meningkatkan kemampuan berbicara siswa, khususnya dalam aspek kosakata dan kelancaran namun tidak dalam pengucapan dan tatabahasa.

Kata kunci: semantik mapping; kemampuan berbicara; pembelajaran bahasa.

INTRODUCTION

A country has its own language. It is different from one to another. To communicate with different languages, people need a global language. The global language is a language used by people from different nations to communicate with each other (Smith in Zacharias, 2003: 27). It will make them understand each other what they talk about, so that they can convey their message well in the conversation. One of the global languages is English. As a global language, English gives opportunity to people open their future to be better by learning it.

Learning English is learning how to communicate it well both in oral and written. Furthermore, in Indonesia, English is taught from elementary school until university level or even in kindergarten level. Learners learn English as compulsory subject from junior high school until university, as local subject in elementary and as prestigious subject in kindergarten. So, it is undeniable that English become the language "power, success and prestige" (Graddol in Zacharias, 2003: 65).

In Indonesia, teaching English emphasizes on the students' ability of the four language skills that are listening, speaking, reading and writing. These four skills should be reinforced equally which link each other as a unity. The integration of the four skills is the only plausible approach within a communicative, interactive framework (Brown, 2001: 234).

In *Kurikulum 2013,* language competence is emphasized to convey ideas and the students are accustomed to express themselves with spontaneous convincing language (*Kementerian Pendidikan dan Kebudayaan*, 2014). The students are required to master speaking skill, especially to express interpersonal, ideational, and textual meanings in daily use. The standard competence of speaking skills is enable students to communicate in spoken English accurately. It is clear that English as an international language is very important.

Yet, in fact Indonesian students still get difficulties and often reluctant to speak (Mardiana at all, 2015). They are unconfident or afraid to speak and tend to keep silent in the class. Most of them still find difficulties to use appropriate vocabulary to be expressed in a conversation. Some say that it is difficult to memorize certain words; others say that the teachers cannot translate the proper interpretation of the words (Hustchinson & Waters, 1987: 50). Whereas, mastering the language especially in speaking, students cannot avoid learning the vocabulary as part of language. To solve this problem, the teacher can use one technique for enriching students' vocabulary ability such as semantic mapping. Semantic mapping will help the students in brainstorm and to generate new ideas.

The use of semantic mapping has been empirically demonstrated to facilitate student success in vocabulary development (Anderson in Alber & Foil, 2002: 133). Semantic mapping enhances vocabulary development by helping students to link new information with previous experience (Burns, 1999: 140). Semantic mapping is a visual strategy for vocabulary knowledge by displaying in categories words related to one another.

This feature of semantic mapping makes some researchers from other countries interested to investigate it further for writing and reading activity. Mah (2011) conducted the research about semantic mapping: a visual and structured pre-writing strategy in the process of essay writing in one of the Malaysian higher learning institutions in Kedah Darul Aman, Malaysia. From the results, it was found that there was positive feedback received from the subjects on the use of semantic mapping in their writing. In the study, the research has attempted to draw attention on how semantic mapping can become an effective technique for writing in the Communicative Language Teaching (CLT) classroom. Moreover, he said that this technique of teaching essay writing is more useful for lower-level ESL learners who are still struggling with shortage of vocabulary and ideas in writing.

Along with this, Nyoni (2012) also conducted the study of semantic mapping in enhancing composition writing. In his research entitled "Semantically Enhanced Composition Writing with Learners of English as a Second Language (ESL)", he concluded that students who have been exposed to semantic mapping tend to write better compositions than those who have no knowledge of semantic mapping. The study also established that semantic mapping can be used to generate information before a composition is written.

Some studies of semantic mapping also were conducted in reading activity. Reza (2012) examined to check the students' skill in reading comprehension on the basis of semantic mapping task in Yazd Shahid Sadoughi University of Medical Sciences, the research entitled "The Role of Semantic Mapping as a While-reading Activity in Improving Reading Comprehension Ability of the Iranian University Students in General English (GE) Courses". In that study, he found that the semantic mapping group enjoyed significantly higher reading comprehension ability than the relevant control group at the end of the study.

Sadeghi & Taghavi (2014) investigated the effectiveness of semantic mapping on reading comprehension and recall of Iranian undergraduate students (non-EFL majors) reading texts in English, their research's title is "The relationship between semantic mapping instruction, reading comprehension and recall of Iranian undergraduates reading English texts". They examined whether there is an interaction between gender and the effect of teaching semantic mapping strategy on reading comprehension and recall. After administering two post-tests and a delayed recall post-test based on the General English text book,

quantitative and qualitative findings supported the findings of earlier research on the benefits of the application of semantic mapping in the experimental group, but failed to show a significant difference between males and females.

Nejati & Pejman (2015) conducted a research on the same topic entitle "Beyond A "What Works" Technique: The Case of Semantic Mapping". This study intended to assess the effect of semantic mapping on pre-university students' reading comprehension. The results, analyzed through an independent samples t-test revealed that the semantic group did better than the other group. The results of the study is semantic mapping technique can be used by teachers to improve the learners' reading comprehension.

Based on the explanation above, it can be concluded that many studies of semantic mapping have been already conducted in reading and writing activity. However, the use of semantic mapping for speaking class has been relatively unexplored. Therefore the writer decided to examine the implementation of semantic mapping through learning together technique to improve speaking competence.

METHODS

Participants

Mason & Bramble (1997: 113) state that usually sample is considerably smaller than the population, though the case of a relatively small population, the sample may be nearly the same size. From this statement, sample may be in the same size with the population. In other word, all the population could be determined as sample. Johnson and Christensen (2000: 158) expressed that a sample is a set of elements taken from a larger population according to a certain rules. It was impossible for the writer to take all classes of the seventh grade students of SMP Taba Renah Selangit. Therefore, the writer only took two classes as the sample by using cluster random sampling technique. They were 22 students of VIIA and 22 students of VIIB.

Design and Procedures

In this study, a quasi-experimental design was used. It consisted of one experimental class and one control class. A group that had a treatment was called experimental group and another group that had no treatment was called a control group. The research design was:

Table 1
Research Design

Group	Pre-test	Treat-ment	Post-test
Experiment	0_1	X	0_2
Control	0_3	-	0_4

Annotation:
O_1 : *Pre-test of experiment class*
O_2 : *Post-test of experiment class*
O_3 : *Pre-test of control class*
O_4 : *Post test of control class*
X : *Treatment*

This study was conducted base on the following procedures;

1. Pre-test

Pre-test was needed to observe student's prior knowledge before the treatment. It was

done on the first meeting for both experimental and control groups. This time the students had to describe about one of these topics: (a) Things in your classroom, (b) Things in your house, or (c) Things in your gardening

2. Treatment

a. Experimental group:

1). First treatment: The students were introduced about what and how semantic mapping was. Then, the researcher taught the lesson by using semantic mapping technique. The lesson was about "*asking and giving information of things around us*". It was held in twice of meeting.

2). Second treatment: In this time the students were asked to create a semantic mapping in group. The topic was "*asking and giving information of things around school*". Here, the students could be helped to find the words by using brain storming (w-h questions). When it ended, they would be given an opportunity to tell about it individually. It was held in twice of meeting.

3). Third treatment: To make familiar with the technique, the students created a semantic mapping again in group with different topic. The topic was "*asking and giving information of things I should buy*". Then, they were asked to explain their semantic mapping individually. It was held in twice of meeting.

b. Control group:

The students in the control class were taught by using conventional treatment. Conventional treatment was a method usually used by the teacher in teaching English. The total meetings for treatment in control group were held in six times of meeting.

3. Post-test

Post-test was given after the researcher had given the treatment for both experimental group and control group. The post-test questions were same as the pre-test.

4. Data Analysis

The last phase of the research procedure in this study was data analysis. The data had been taken from the result of the test. The test was in the form of pre-test and post-test. T–test formula was used to find out whether the difference of mean between pre-test or post-test was significant or not. T- Test was used to measure and compared the difference of means score between experimental group and control group. Data analysis was described clearly in data analysis technique.

The Analyzing of Data

In analyzing the data of this study, there were two steps of scoring procedure, namely:

First, the student's speaking in pre test and post test would be scored by two scorers. The first scorer was the researcher and the second scorer was an English teacher in SMP Tabah Renah Musi Rawas. After getting the result of test, the scores in list one and list two were correlated by using product moment formula.

$$r_{xy} = \frac{N\sum xy - (\sum x)\sum y}{\sqrt{\{N\sum x^2 - (\sum x)^2\}\{N\sum y^2 - (\sum y)^2\}}}$$

(Zamzali, 2008:19)

So based on the explanation above, it could be concluded that the scoring process would be repeated if the correlation was not significant, vice versa the scores in list 1 and list 2 would be combined if the correlation was significant. Second, after getting the combination of score from scorer 1 and 2, it could be continued to second steps of analyzing the data. For the first data (pre-test), researcher found out the average of the score learners get for each class.

The steps of tests conducted were described as follow:

a. Normality Test
b. Homogeneity test
c. T-test

The first step was to test the data normality. It was used to know the normality of the data that was going to be analyzed whether both groups had normal distribution or not. Chi square was used here.

$$X^2 = \sum_{i=1}^{k} \frac{(O_i - E_i)^2}{E_i}$$

Notice:
X^2 : chi square
O_i : frequency from observation
E_i : expected frequency
k : the sum of interval class

Calculation result of *X*2 is compared with *X*2 table by 5% degree of significance. If *X*2 is lower than *X*2 table, the distribution list is normal.

The t-test used depends on the previous tests (homogeneity) that was:

a). If data is homogeneous (F count ≤ F table), A formula will be used; and b). If data is not homogeneous or (F count ≥ F table), B formula will be used.

$$F = \frac{S\,max^2}{S\,min^2}$$

$$SD = \sqrt{\frac{\sum X_1^2 - \frac{(\sum X_1)^2}{N}}{N-1}}$$

Note:
F = Coefficient of the similarity variance
SD = Standard deviation
$\sum X_1^2$ = Sum of square score
$\frac{(\sum X_1)^2}{N}$ = Square of sum score
N = Number of object

Sirkin (1999)

A formula would be used if *F count* ≤ *F table*. It meant that the both samples have equal variance. Thus, we could use the t-test for independent score were equal variants (formula A). In other words, the following t-test formula was valid.

$$t_{count} = \frac{\bar{X}1 - \bar{X}2}{S_{diff}}$$

$$\bar{X}_1 = \frac{\sum X_1}{N_1};\ \bar{X}_2 = \frac{\sum X_2}{N_2}$$

$$S_{diff} = \sqrt{\frac{\sum X_1^2 - \frac{(\sum X_1)^2}{N_1} + (\sum X_1)^2 - \frac{(\sum X_2)^2}{N_2}}{N_1 + N_2 - 2}\left[\frac{1}{N_1} + \frac{1}{N_2}\right]}$$

B formula would be used if *F count* ≥ *F table*. It meant the data was not homogeneous or the both samples had no equal variance, the B formula as follow:

$$t_{count} = \frac{\bar{X}1 - \bar{X}2}{\sqrt{\frac{S_1^2}{N_1 - 1} + \frac{S_2^2}{N_2 - 1}}}$$

(Sirkin, 1999)

df = whichever is smaller, N_1 or N_2

Note:

$\bar{X}_1$ = the means score on sample 1
$\bar{X}_2$ = the means score on sample 2
t_{count} = the coefficient of the difference rate of the two samples
$\sum X_1^2$ = the total squared score on sample 1
$(\sum X1)^2$ = the squared total score on sample 1
$\sum X_2^2$ = the total squared score on sample 2
$(\sum X_2)^2$ = the squared total score on sample 2
$\sum X_2^2$ = the total squared score on sample 2
N_1 = the total object of sample 1
N_2 = the total object of sample 2

The t form of the formula would be called t count. T count would be compared to t-table at $\alpha = 0.05$ and corresponding *df* two results may occur:

a) If t_{count} > t-table; H_1 will be accepted and H_0 will be rejected.

b) If t_{count} < t-table; H_0 will be accepted and H_1 will be rejected.

or,

a) if p-value < 0.05; H_1 will be accepted and H_0 will be rejected.
b) if p-value > 0.05; H_0 will be accepted and H_1 will be rejected.

The calculation of t-test for post test in this research was compared to watch out the improvement of students' speaking competence after the treatment given.

RESULT

The table 2 and 3 show the results of students' speaking competence between the experimental class and the control class before and after treatment. It is clear that more students scored in experimental class better than students scored in control class after getting treatment from the researcher.

Table 2
The Pre-test of Total Speaking Score in the Experimental and Control Group

Test	Group	Mean	t	p(sig)	Difference in means
Pre	Exp	64.82	-0.076	> 0.05	Not sign
	Cont	65.36			

From the Table 2, the calculation of total speaking result before treatment between the experimental class and the control class can be seen from pre-test result of t-test of this research, and the significance of probability is 0.936. Ho is accepted, and Ha is rejected because p > 0.05. It can be concluded that there is not significant difference of students' speaking score between the experimental class and the control class before treatment.

Table 3
The Post-test of Total Speaking Score in the Experimental and Control Group

Test	Group	Mean	t	p(sig)	Difference in means
Post	Exp	76.77	3.092	< 0.05	Significant
	Cont	72.5			

The calculation of speaking result after treatment between the experimental class and the control class can be seen from post-test result of t-test of this research, and the significance of probability is 0.018. Ho is rejected and Ha is accepted because P < 0.05. It can be concluded that there is a significant difference of students' speaking score between

the experimental class and the control class after treatment.

1. Semantic Mapping through Collaborative Learning Technique to Improve Students' Vocabulary in Speaking

The table 4 and 5 show the results of students' vocabulary in speaking between the experimental class and the control class before and after treatment. It is clear that more students scored in experimental class better than students scored in control class after getting treatment from the researcher.

Table 4
The Pre-test of Vocabulary Score in the Experimental and Control Group

Test	Group	Mean	t	P(sig)	Difference in Means
Pre	Exp	14.23	0.355	0.717 > 0.05	Not sign
	Cont	13.91			

From the Table 4, the calculation of vocabulary result before treatment between the experimental class and the control class can be seen from pre-test result of t-test of this research, and the significance of probability is 0.717. Ho is accepted, and Ha is rejected because P > 0.05. It can be concluded that there is not significant difference of students' vocabulary score between the experimental class and the control class before treatment.

Table 5
The Post-test of Vocabulary Score in the Experimental and Control Group

Test	Group	Mean	t	p(sig)	Difference in Means
Post	Exp	20.32	4.650	< 0.05	Significant
	Cont	18.05			

The calculation of vocabulary result after treatment between the experimental class and the control class can be seen from post-test result of t-test of this research, and the significance of probability is 0.001. Ho is rejected and Ha is accepted because P < 0.05. It can be concluded that there is a significant difference of students' vocabulary score between the experimental class and the control class after treatment.

2. Semantic Mapping through Collaborative Learning Technique to Improve Students' Fluency in Speaking

The table 6 and 7 show the results of students' fluency in speaking between the experimental class and the control class before and after treatment. It is clear that more students scored in experimental class better than students scored in control class after getting treatment from the researcher.

Table 6
The Pre-test of Fluency Score in the Experimental and Control Class

Test	Group	Mean	t	P(sig)	Difference in Means
Pre	Exp	15.68	-0.604	> 0.05	Not sign
	Cont	16.09			

From the Table 6, the calculation of fluency result before treatment between the experimental class and the control class can be seen from pre-test result of t-test of this research, and the significance of probability is 0.589. Ho is accepted, and Ha is rejected because P > 0.05. It can be concluded that there is not significant difference of students'

fluency score between the experimental class and the control class before treatment.

Table 7
The Post-test of Fluency Score in the Experimental and Control Class

Test	Group	Mean	t	P(sig)	Difference in Means
Post	Exp	18.91	2.768	< 0.05	Significant
	Cont	17.59			

The calculation of fluency result after treatment between the experimental class and the control class can be seen from post-test result of t-test of this research, and the significance of probability is 0.033. Ho is rejected and Ha is accepted because $P < 0.05$. It can be concluded that there is a significant difference of students' fluency score between the experimental class and the control class after treatment.

DISCUSSION

The first question in this research is how semantic mapping through collaborative learning technique can improve students' speaking competence. The results show that semantic mapping through collaborative learning is significantly effective to improve students' speaking competence. In the pre-test, it was found that students were difficult to express their idea. However, in post-test, it was found that most students are able to describe the information related the topic.

It could be said that semantic mapping through collaborative learning technique is an effective way to improve the students' speaking competence. Insyirah & Ernidawati (2014) show that using semantic mapping strategy was more effective and gave higher result than using conventional method in teaching speaking descriptive text.

The second question in this research is how semantic mapping through collaborative learning technique can improve students' vocabulary in speaking. The results show that semantic mapping through collaborative learning is significantly effective to improve students' vocabulary in speaking. In the pre-test, it was found that students were difficult to use the vocabulary in expressing their idea. However, in post-test, it was found that most students are able to use more vocabulary to explain the information related the topic.

It could be said that semantic mapping through collaborative learning technique is an effective way to help students to improve their vocabulary in speaking competence. This is because semantic mapping enables students to visualize the relationships and categorize these relationships (William, 1994). Furthermore, Hall & Strangman (2002) say that semantic mapping is a graphic display that visually shows the relationships between terms and ideas to learners as they perform the learning task. This research finding is supported by Abdollahzadeh (2009), he investigated that the effects of using Semantic Mapping Technique in comparison to traditional technique. The results, semantic mapping technique is more effective than the traditional technique in improving vocabulary for speaking.

The third question in this research is how semantic mapping through collaborative learning can improve the students' fluency in speaking. The results show that semantic mapping is effective to improve students' fluency in speaking competence. In the pretest, students can't speak English fluently. They were often stagnant and forgot what to say. It showed that students' fluency in speaking is poor. However, in posttest, the writer found most students are able to speak more fluently. They can speak faster than before and describe the topic sequantly.

It could be said that semantic mapping through collaborative learning is an effective way to help students to improve their fluency in speaking. This is because semantic mapping represent a graphic teaching strategy which has been devised to help learners build the conceptual connections they need to decipher any word completely (Winters in Indriarti, 2014: 78). Moreover, during the treatment, students discuss the themes in group about name of things around such as in the school, in the house, and in the garden, which can make them interested to set semantic mapping for speaking. This research finding is supported by Insyirah & Ernidawati (2014). They find that semantic mapping as guidance facilitated the students for having good performance in speaking especially in fluency aspect.

CONCLUSION

It was found that the use of semantic mapping through collaborative learning was significantly effective to improve students' speaking competence. The calculation shows that there was a significant difference in students' speaking competence between the experimental class and the control class after the treatment.

It was found that the use of semantic mapping through collaborative learning was significantly effective to improve students' vocabulary in speaking competence. The calculation shows that there was a significant difference in students' vocabulary between the experimental class and the control class after the treatment.

It was found that the use of semantic mapping through collaborative learning was significantly effective to improve students' fluency in speaking competence. The calculation shows that there was a significant difference in students' fluency between the experimental class and the control class after the treatment.

It was found that semantic mapping through collaborative learning was significantly effective to improve students' speaking competence, especially in vocabulary and fluency aspects.

REFERENCES

Abdollahzadeh, Esmaeel. (2009). The effect of semantic mapping as a vocabulary instruction technique on EFL learners with different perceptual learning styles. *The Journal of Applied Linguistics*, 2(1), 1-27

Alber, S.R., & Foil, C.R. (2002). Fun and effective ways to build your students' vocabulary. *Intervention in School and Clinic, 37*(3), 131-139.

Brown, H.D. (2001). *Teaching by principles. An interactive approach to language pedagogy, second edition*. New York, NY: Longman Inc.

Burns, A. (1999). *Collaborative action research for English language teachers*. Cambridge, UK: Cambridge University Press.

Hall, T., & Strangman, N. (2002). Graphic organizer. national center on accessing the general curriculum. Retrieved September 20, 2015 from ttp://www.lsus.edu/Documents/Offices%20and%20Services/Student%20Development%20and%20Counseling%20Center/graphic%20organizers.pdf

Hutchinson, T., & Waters, A. (1987). *English for specific purposes*. New York, NY: Cambridge University Press.

Indriarti. (2014). The effectiveness of semantic mapping strategy to improve students' vocabulary mastery. *Journal of English language teaching*. Forum 3(1). Retrieved August 21, 2015 from: http://journal.unnes.ac.id/sju/index.php

Insyirah, L., & Ernidawati. (2014). The effect of semantic mapping strategy on students speaking achievement. In http://digilib.unimed. ac.id/the-effect-of-semantic-mapping-strategy-on-students-speaking-achievement-in-smp-negeri-1-sei-suka 35919.html

Johnson, B., & Christensen, L. (2000). *Educational research: Quantitative and qualitative approaches*. Boston: Allyn and Bacon.

Kementerian Pendidikan dan Kebudayaan. (2014). Paparan Menteri Pendidikan dan Kebudayaan RI- Press Workshop: Implementasi kurikulum 2013. Jakarta. http://kemdikbud.go.id/kemdikbud/node/2070

Mah, B.Y. (2011). Semantic mapping: A visual and structured pre-writing strategy in the process of essay writing. *ESTEEM academic journal UiTM Pulau Pinang, 7,* 81–92.

Mardiana, Afriyani, Latifah & Hotimah. (2015). The low motivation of students in learning English foreign language in the context of speaking. Sultan Ageng Tirtayasa University. Retrieved October 13, 2015 from https://www.academia.edu/4766541

Mason, E.J., & Bramble, W.J. (1997). *Research in education and the behavioral sciences: Concepts and methods*. New York, NY: Brown and Benchmark.

Nejati, R., & Pejman, A. (2015). Beyond a "What Works" technique: The case of semantic mapping. *International Journal of Language Learning and Applied Linguistics World (IJLLALW)*

Nyoni, E. (2012). Semantically enhanced composition writing with learners of English as a second language (ESL). *International journal of humanities and social science,* 2, 264-274.

Reza, M.M. (2012). The role of semantic mapping as a while-reading activity in improving reading comprehension ability of the Iranian University students in General English (GE) Courses. *Theory and practice in language studies*, 2(11), 2422-2429.

Sadeghi, K., & Taghavi, E. (2014). The relationship between semantic mapping instruction, reading comprehension and recall of Iranian undergraduates reading English texts. *Mextesol Journal*, 38(1), 1-13.

Sirkin, R.M. (1999). *Statistics for the social sciences*. Thousand Oaks, CA: Sage ISBN 0761914196

Sujana. (1996). *Metode statistika*, Bandung: Tarsito, p. 239

Zacharias, N.T. (2003). A survey of tertiary teachers' beliefs about English language teaching in Indonesia with regard to the role of English as a global language. *MA-ELT thesis*. Bangkok: University of Thailand.

Zamzali. (2008). *Statistic pendidikan*. Bengkulu, Indonesia: FKIP Unib.