THE EFFECT OF MIND MAPPING STRATEGY ON THE STUDENTS' SPEAKING COMPETENCE OF SMPN 1 SUKASADA

Ade Putra Sujana Mahardikha[1], Ni Nyoman Padmadewi[2], Kadek Sintya Dewi[3]

English Language Education
Ganesha Education University
Singaraja, Indonesia

E-mail: Ade15xxx@gmail.com, Padmadewi@northbalibilingualschool.org, sintya09@yahoo.com

Abstrak

Penelitian ini bertujuan untuk menyelidiki apakah penerapan strategi pemetaan pikiran dengan jenis web laba-laba memberikan pengaruh yang berbeda secara signifikan terhadap kompetensi berbicara siswa kelas 8. Penelitian ini menggunakan desain eksperimental dalam bentuk post-test only control group design. Populasi penelitian ini adalah siswa kelas 8 SMPN 1 Sukasada pada tahun akademik 2017/2018. Sampel dipilih menggunakan teknik cluster random sampling, dengan 2 kelas sebagai sampel penelitian. Data dikumpulkan dengan menggunakan tes dan hasilnya dianalisis secara deskriptif serta inferensial. Hasil statistik deskriptif menunjukkan bahwa skor rata-rata kelompok eksperimen adalah 77,32 sedangkan skor rata-rata kelompok kontrol adalah 73,10. Hasil uji-t menunjukkan bahwa nilai t yang diamati lebih tinggi dari nilai t kritis yaitu 2,089> 2,0040 (α = 0,05). yang menunjukkan bahwa ada perbedaan rata-rata yang signifikan antara kelompok eksperimen dan kelompok kontrol. Dengan demikian, dapat disimpulkan bahwa siswa yang belajar dengan strategi pemetaan pikiran mencapai kompetensi berbicara yang lebih baik dibandingkan dengan mereka yang belajar di lingkungan belajar tradisional. Studi lebih lanjut disarankan untuk menganalisis penggunaan strategi pemetaan pikiran pada berbagai keterampilan belajar seperti menulis, membaca atau mendengarkan.

Kata kunci: *Pemetaan Pikiran, Berbicara, Strategi pembelajaran*

Abstract

This study aimed at investigating whether or not the implementations of mind mapping strategy with spider web types gave any significantly different effect on the 8th grade students' speaking competency. The research used experimental design in the form of post-test only control group design. The population of the study was grade 8 of SMPN 1 Sukasada at the academic years of 2017/2018. Samples were chosen using cluster random sampling technique, with 2 classes as samples of the study. The data were collected using tests and the results were analyzed descriptively as well as inferentially. The result of descriptive statistics showed that the mean score of the experimental group was 77.32 while the mean score of control group was 73.10. The result of t-test showed that the value of $t_{observed}$ is higher than $t_{critical\ value}$ which is 2.089 > 2.0040 (α = 0.05). Which indicated that there was a significant mean difference between experimental group and control group. Thus, it can be concluded that the students who learnt with mind mapping strategy achieved better speaking competency compared to those who learnt in traditional learning environment. Further study is suggested to analyze the use of mind mapping strategy on different learning skills such as writing, reading or listening.

Keywords: *Mind Mapping, Speaking, Learning strategy*

INTRODUCTION

English is the international language that is used by people all over the world to communicate with others. According to Algeo (2010, p.1) English is one of the widespread language used by people and the most commonly used language. It is also used for particular purposes based on the learner specifics goal and learners interest in various disciplines (Saliu & Hajrullai, 2016). As mentioned by Hattingh (2014), people are communicating with other to exchange ideas and share information. To express ideas, people need to have a certain knowledge of the language competence itself. As stated by Wren (2001, p.14) it is not easy to construct a language because it required a complex mix of different abilities. It includes linguistic knowledge, or knowledge of the formal structures of a language and background knowledge.

Related to English as international language nowadays in global era the students are required to master English as an international language. Especially in ASEAN Economic Community (AEC). The purpose of the AEC is to develop the higher economic, cultural development and peace between members of the ASEAN community, inclusive growth and integrated development of ASEAN, and sustained social progress (ASEAN, 2008). The most important thing is that Indonesia needs to create a good human resource especially the ability to use the foreign language. There are four major skills that learners of a foreign language need to master: listening, reading, speaking and writing (Scudder, 2013). Speaking is one of the competencies that must be mastered by the students among other skills in junior high school (Permendikbud No. 81A/2013).

However, Valentina (2016) reported that Indonesia advanced rank 32 of 72 countries in terms of English first English Proficiency Index or EF EPI conducted by the researcher of International English international education company English First or EF. The rank is still quite low when compared with other ASEAN countries such as Vietnam and Malaysia. English Proficiency Indonesia index ratio in 2016 was in medium ability with score EF 52,94 EPI which is below Malaysia with score EF EPI amounting to 60.70 which falls into the high category.

Speaking competence is difficult especially for country that do not use English as their mother language, the students are having low competency in using English (Souriyavongsa, Rany, Abidin, & Mei, 2013). Generally, in non-English country, the English Proficiency was low due to the non-English language used in society. Beside the lack of using English in daily communication, there are other influencing factors. As mentioned by Rany, Jafre, Abidin, and Mei (2013), in ASEAN the low English performance are caused by a weak curriculum design, lack of English teacher and low learning motivation. From the students' perspective, English is seen only as a school subject and the importance of English when working in multinational country is not recognized (Murray & Christison, 2010).

The other problem in ELT context according to Hosni (2014), stated that the strategy of the teachers in teaching English especially speaking. In Indonesian context, Sulistiyo (2015), noted that the teaching strategies used by EFL teachers has not significantly improved students' English competency. This was also observed by (Santosa, 2017). He viewed that most of EFL teachers in

Asian dominate the classroom and the students become passive learner. In Indonesia the curriculum that is implemented suggests the teachers to use a scientific approach. Curriculum 2013 uses a concept of scientific approach, scientific approach is implemented in order to get the students to be able to find the answer on wishful thinking but through the scientific structural (Hidayanti ,2013). Teachers should teach four basic skills in English such as speaking, listening, reading and writing, mean while there is only limited time allocation for English course which is only two times a week and eighty minutes per session. Therefore, teachers did not have much time to teach specific speaking competences.

Preliminary observation was conducted in SMPN 1 Sukasada in order to check if there have been previous studies in the same field that were carried out on the SMPN 1 Sukasada

There were many activities to engage students to speak English such as discussion, describing picture, brainstorming and mind mapping. Mind mapping is one of the learning models to engage the students learning (Murley, 2007). By using mind mapping strategy, the students could easily arrange their ideas, discover new ideas and ease the thinking process. Murley (2007) noted that mind mapping is an effective tool to generate idea and draw it into a paper or express it orally. By using mind map, students can produce oral language in a coherent, cohesive, clear, organized, and memorable way, because its advantages are to describe, compare, classify, make sequence, and make a decision (Anggraeni, 2014). It also allows them to expand their vocabulary and associate new and old words to images that help to convey meaning easily in a specific context.). In conclusion, the effectiveness of using pictures, color, and association in mind map relate with the needs of the students to produce their oral sounds, called as speaking.

Mind mapping is a research that has often been done by several researchers. Nasution (2013) has done the same research about mind mapping on the students speaking skill of descriptive text. The gap between previous study and now is, the study conducted by Nasution (2013) was kind of classroom action research design, while on this research study was kind of experimental post-test only control group design, the population was using students of SMKN 1 Panyabungan grade X-1 with number of students 44, while on this study used target population of VIII grade population of SMPN 1 Sukasada. The purpose of previous study was to improve students speaking competence, but in this study the purpose is to investigate whether or not there is any significant effect of the implementation of mind mapping strategy on the students' speaking competence on 8th grade students of SMPN 1 Sukasada in academic year 2017/2018.

Brown (2000) states that speaking was the process of producing and constructing meaning, receiving information and processing the information through utterances. As supported by Torky (2006), Speaking was an interactive process of constructing meaning that involves producing, receiving and processing information. Howarth (2001) defines speaking as a two–way process involving a true communication of ideas, information or feelings. It could be said that speaking was the ability to producing, receiving and

processing ideas, information or feelings through utterances.

As mentioned by Febriyanti (2011) to communicative orally the students need to practice the most essential skill which is speaking. Speaking was one of the basic skill that student needs to mastering, among the four main skills writing, reading, listening, and speaking. it is because in speaking we could measure the student English skill and know how they could use and produce the language especially the target language. Through the speaking competence the student could express their feeling or their thought using utterance or voice. Through speaking the student also could interact with other people by using a language. As the social creature the human always need to interact or communicate with the other people, it's impossible for someone to communicate with other people without the purpose. While doing the conversation involves two people the first is as the receiver and the second person is as the speaker.

The Mind mapping concept was originally introduced by Tony Buzan in the 1970. According to Buzan (2005) a mind map is a visual thinking tool that can be applied to all cognitive functions, especially memory, learning, creativity and analysis. Mind mapping can be used to represent generate, classify, and organize ideas. Windura (2008) states that mind mapping is allow the students to optimizing their brain for thinking and learning through a technical graphics.

Furthermore, according to Murley (2007), mind mapping helps the student to extract their ideas through the visual representation and express it orally or draw. Usually mind mapping drawn by hands but now it can be doing by software, there is some aspect that the students need to consider with when create or drawn mind mapping the first is the central of the content, the quantity of the branch, the use of color, keyword and the image.

Based on the considerations above, this study was intended to investigate the effect of Mind Mapping strategy on the students' speaking competence at SMP N 1 Sukasada.

METHOD

The research design in this study was one kind of experimental design called post-test Only Control Group Design. According to Sugiono (2009), in this design there were two groups of each selected randomly (R). The design involves an experimental group and control group which was formed by cluster random sampling. The experimental group was taught by using mind mapping strategy, while the control group will be taught by conventional lecturing teaching technique.

The population of this study was the eighth grade students of SMPN 1 Sukasada in academic year of 2017/2018. The cluster random sampling by using lottery was used to determine the sample. There were three kind of instruments used in this study namely speaking competency test, scoring rubric and lesson plan or teaching scenario. The teaching scenario was used to teach experimental and control group. Both groups had its teaching scenario based on its approach. Scoring rubric used in this study was speaking scoring rubric, which scoring rubric was used to assess students' ability to speak in accordance with the criteria of achievement based on the indicators stated in the syllabus.

The data obtained in this study were quantitative data, gathered by administering a post-test. The data collected were analyzed by using two types of

statistical analysis namely the descriptive statistical analysis which calculated the mean, median, mode, range, and standard deviation. Inferential statistics was also used in this research in order to analyze the significant difference of both techniques.

FINDINGS & DISCUSSIONS

The result of post-test can be seen in Table 1.

Table 1

Experiment Group	Control Group
Mean = 77.32	Mean =73.10
median =77.50	Median =75.00
Mode = 80	Mode = 75
Std Deviation = 7.388	Std Deviation =7.839

From Table 1, it can be seen that the mean score of experiment group taught by using mind mapping strategy was 77.32 while the mean score of control group taught by conventional strategy was 73.10. it was found that the mean score of the experimental group was higher than students in control group. The median score of experiment group was 77.50 while the median score of control group was 75.00. The most frequently appeared score in experimental group was 80 Meanwhile, the mode in control group was 75. The Standard deviation of experiment group was 7.389 while the standard deviation of control group was 6.899.

The result of inferential statistics can be seen in Table 3.2

Table 3.2 The Result of t-test

Sig. (2-tailed)	0.041
Mean Difference	4.21798
Standard Error	2.01929
Df	55

From Table 3.2, a significant mean difference was indicated if the value of Sig (2-tailed) was lower than .05. From the result of t-test it can be seen that the value of Sig (2-tailed) is .041. This indicated that there was a significant mean difference between experiment and control group.

This study aimed to investigate the significant difference on the students' speaking competence, between students taught by using mind mapping strategy and students taught by conventional strategy entitled The Effect of Mind Mapping Strategy on The Students' Speaking competence of SMPN 1 Sukasada.

During the implementation of the study, the researcher used lesson plan as guidance to give the treatment for both experimental and control group, the experimental group used lesson plan with mind mapping strategy while control group used lesson plan with conventional strategy. The topic was about description of animal. There were 8 times of treatment for experimental group and also 8 times treatment for control group.

After that the researcher prepared the instruments needed in conducting the data. after that the researcher tried to measure the validity and reliability of the speaking competence test. The validity was measured by consulting by the two experts, while the reliability of the test was checking by conducting try out test at class VIII A of SMPN 1 Sukasada consist of 29 students.

Considering the finding of this research above, the findings of the study indicated that students who were taught with mind mapping achieved better speaking competence (Mean score = 77.32) compared with students who were taught with conventional teaching (Mean score = 73.79). The result of hypothesis testing also gave an evidence that there was a significant mean difference between experiment group and control group (Sig.2tailed

= .041). Therefore, the result of the finding rejected the Null hypothesis and accepted the Alternative Hypothesis.

A similar finding was also indicated in a study conducted by Aini (2012). She found that by using mind mapping most of the students can reach the standard passing grade score. The number of students who get a school grade more than 68 were 25 students or 62,5 % from the total number of students (40 students). In the second cycle, the number of students who get a school grade more than 68 are 34 students or 85 % from the total number of students. It concluded that mind mapping could increase the result of speaking competence. Mirza (2016) also found that by using T-test and degree of freedom 48 at significant level of α=0.05 showed that the gained score was 6.23. As T-test was higher than T-table 6.23 > 1.68, Ha of this research was accepted. In conclusion mind mapping was one of the strategies that can be used to improve the students speaking ability.

The students who were taught with mind mapping were put as the central of learning process. They were very active and able to build cooperation with their peers. As mentioned by Buran and Filyukov (2015), the use of mind mapping technique in language teaching provides an active role for students, while a teacher becomes a facilitator and a coordinator, helping the students. The most significant results of this study have shown that mind maps are useful for solving problems, brainstorming the ideas, learning new vocabulary, taking notes, improving speaking skills and preparing presentations. They also found that mind mapping technique invented in the XX century is considered to be up-to-date, creative, useful and available tool for students, educators

and researchers. As supported by (Gomez & King, 2014), the mind mapping strategy has proven to be a good technique for memorizing, creative thinking, speaking, and learning.

In the experiment group, students drawed a map which can lead them to recognize the topic and comprehend them into good sequencing in speaking. By being able to organize the topic through mind mapping, Ghonsooly and Hosienpour (2009) found students were able to activate relevant speaking knowledge from memory and provides a situation in which comprehension and production of the subsequent speaking task can be supported.

Students when learning with mind mapping were observed having a high interest speaking activity when the colorful pictures were used in the mind map. This was also supported by Anggraeni (2014). She found that by organizing information, using pictures and symbol, and abbreviations instead of full words rather than in sentences help the mind mapping can be easily understood by the students. Fiktorius (2013) also found that mind mapping allows showing all related topics on the same mind-map, with associations displayed by images, symbols, and colors, all of which improve memory retention. It also captures students' attention. It provides students with a more attractive and enjoyable format for their eye or brain to look at, think about, and remember.

However, despite of benefits of using mind mapping, there were several challenges when mind map was integrated in the classroom. Using mind mapping consumed a lot of time. There were some students who were difficult to develop and read the diagram. This challenge was also

observed by Davies (2011). He found that disadvantages of mind mapping are hard, for others to read because mind mapping is a creative thinking process from someone that is poured through a hierarchical diagram so it's difficult for other people to read because the idea comes from someone else. often too complex, Mind mapping is also limited in dealing with more complex relationships.

CONCLUSION AND SUGGESTIONS

This study was conducted to maximize the use of creative and innovative teaching strategy for speaking, especially by using mind mapping strategy in SMPN 1 Sukasada, in order to help the students dealing with their speaking competence. The purpose of this study was to investigating the significant difference of the implementation of mind mapping strategy on the students speaking competence. This study was conducted in SMPN 1 Sukasada. The design of this study was an experimental research which used post-test only control group design. Because using post-test only control group design it means there were two group used in this research namely experimental group and control group. for control group was taught by using conventional strategy, while experimental group was taught by using mind mapping strategy. The sample was 8 grade students of SMPN 1 Sukasada, which divided into 2 class, VIII E for experimental group and VIII F for control group, there were 8 times treatment given to the experimental group, while the control group were also given 8 times treatment. after giving treatment were done. sample were given post-test. After the data were analyzed, it was found that the mean score of the experimental group was higher than control group. mean score of experimental group was 77.32 while mean score for control group was 73.10. After acquired mean score from both of the group that's obtained from descriptive statistics. The data was analyzed by using inferential statistics to checks its significant different through independent t-test. It was found that from the result of the independent t-test the significant value (2 tailed) was 0.041. The mean was below 0.05 so Ho was rejected and Ha was accepted. From the alternative hypothesis stated that there was significant difference of the implementation of mind mapping strategy on the students speaking competence of SMPN 1 Sukasada. Based on the finding, it can be suggested that the teacher of English in that school can use the strategy to teach speaking.

REFERENCES

Anggraeni, F. M. (2014). The Effect ofMind Mapping Technique Towards The Students' Speaking Ability at 7th Grade of SMPN 4 Bandar Lampung. In *The Second International Conference on Education and Language (2nd ICEL) 2014 Bandar Lampung University (UBL), Indonesia ISSN* (pp. 320–327). Bandar Lampung: Bandar Lampung University.

Aini, A. (2012). Metode Mind Mapping Untuk Meningkatkan Kemampuan Berbicara Siswa. *BASASTRA Jurnal Penelitian Bahasa, Sastra Indonesia Dan Pengajarannya*, 1(5), 17–29.

Algeo, J. (2010). *The Origins and Development of The English Language* (6th ed.). Canada: Nelson Education, Ltd.

ASEAN. (2008). Asean economic community blueprint. *The ASEAN Secretariat*, 1–56. https://doi.org/www.asean.org

Brown H. Douglas. (2000). Teaching by Principles An Interactive Approach to Language Pedagogy Second Edition. In *Teaching by Principles An Interactive Approach to Language Pedagogy* (p. 491).

Buzan, T. (2005). *Buku Pintar Mind Mapping*. Jakarta: PT Gramedia Pustaka Utama.

Buran, A., & Filyukov, A. (2015). Mind Mapping Technique in Language Learning. *Procedia - Social and Behavioral Sciences*, *206*(November), 215–218. https://doi.org/10.1016/j.sbspro.2015.10.010

Davies, M. (2011). Concept mapping, mind mapping and argument mapping: What are the differences and do they matter? *Higher Education*, *62*(3), 279–301. https://doi.org/10.1007/s10734-010-9387-6

Febriyanti, E. R. (2011). Teaching speaking of English as a foreign language: problems and solutions. *Jurnal Bahasa, Sastra, Dan Pembelajarannya.*, *1*(2), 133–146.

Fiktorius, T. (2013). *The use of mind-mapping technique in the EFL classroom*. University of Tanjungpura.

Ghonsooly, B., & Hosienpour, A. (2009). The Effect of Concept Mapping on EFL Speaking Fluency. *IJAL*, *12*(1), 87–114.

Gomez, M. ., & King, G. (2014). Using Mind Mapping As a Method To Help Esl/Efl Students Connect Vocabulary and Concepts in Different Contexts. *TRILOGIA, Ciencia, Tecnologia y Sociedad*, (10), 69–85.

H. Douglas Brown, Teaching by principles an interactive Approach to language pedagogy (San Francisco: Pearson Education, 2001), 271-274

Hattingh, S. (2014). The Importance of Teaching Listening. *International Studies*, 97–110. https://doi.org/10.1106/70V2-62VX-7LCK-YDPN

Hidayanti, N. (2013). Effect Of Scientific Approach Application In Learning On Learning Results Students Xii Titl 1 Smk Negeri 7 Surabaya On Competence Standard Operating Electromagnetic Control System, *3*(2), 25–29.

Howarth, P. (2001). Process Speaking. Preparing to Repeat Yourself. *MET*, *10*(1), 39–44.

Hosni, S. Al. (2014). Speaking Difficulties Encountered by Young EFL Learners. International Journal on Studies in English Language and Literature, 2(6), 22–30.Retrievedfrom https://www.researchgate.net/profile/Samira_Al_Hosni/publication/270340628_Speaking_Difficulties_Encountered_by_Young_EFL_Learners/links/54a843470cf256bf8bb7e177/Speaking-Difficulties-Encountered-by-Young-EFL-Learners.pdf

Mirza, A. (2016). *the Use of Mind Mapping Strategy To Improve Students ' Speaking ability*. Ar-raniry Islamic university.

Murray, D. E., & Christison, M. A. (2010). *What English Language Teachers Need to Know:*

Understanding Learning. Taylor & Francis.

Murley, D., (2007), *Mind Mapping Complex Information*, Illinois: Southern Illinois University School of Law Library.

Nasution, D. S. (2013). Improving Students' Speaking Skill of Descriptive Texts Through Mind Mapping at Grade X-1 Computer And Network Tecic Program (TKJ) of SMKN 1 Panyabungan., 1.

Rebecca Scudder. (2013). The 4 Skills in Learning a Foreign Language; More Efficient Than the 5 C's. Retrieved October 2, 2017,fromhttp://www.brighthubeducation.com/language-learning-tips/1624-four-skills-of-learning-a-foreign-language/

Saliu, B., & Hajrullai, H. (2016). Best Practices in the English for Specific Purpose Classes at the Language Center. *Procedia - Social and Behavioral Sciences*, *232*(April), 745–749. https://doi.org/10.1016/j.sbspro.2016.10.101

Santosa, M. H. (2017). Learning approaches of Indonesian EFL Gen Z students in a Flipped Learning Context. Journal on English as a Foreign Language, 7(2), 183-208.

Souriyavongsa, T., Rany, S., Abidin, M. J. Z., & Mei, L. L. (2013). Factors Causes Students Low English Language Learning: A Case Study in the National University of Laos. *International Journal of English Language Education*, *1*(1). https://doi.org/10.5296/ijele.v1i1.3100

Sugiono, P. D. (2009). *Metode Penelitian Kuantitatif, Kualitatif, dan R&D* (7th ed.). Bandung: CV. ALFABETA.

Sulistiyo, U. (2015). *Improving English as a Foreign Language Teacher Education in Indonesia : The Case of Jambi University Bachelor of Education (Faculty of Teacher Training and Education of Jambi University ,*. RMIT University.

Valentina, J. (2016, December). No Title. Retrieved from http://www.thejakartapost.com youth/2016/12/15/indonesia ranks-32nd-in-english proficiency-index.html