# INCREASING STUDENTS' READING COMPREHENSION ABILITY THROUGH MIND MAPPING TECHNIQUE OF REPORT TEXT AT THE FIRST GRADE OF SMAN 2 NATAR

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### ABSTRACT

Penelitian ini bertujuan untuk menentukan: (i) apakah ada peningkatan yang signifikan dalam kemampuan membaca siswa melalui penerapan teknik *Mind Mapping* dalam teks report dan (ii) aspek kemampuan membaca yang paling banyak dan paling sedikit meningkat. Subyek penelitian ini adalah 28 siswa di kelas X of SMAN 2 Natar tahun akademik 2019/2020. Data dikumpulkan melalui membaca bentuk pilihan ganda dan dianalisis menggunakan SPSS 16.0. Hasil dari penelitian ini menunjukkan bahwa terdapat peningkatan yang signifikan dalam membaca siswa pada teks report setelah diajar melalui penerapan teknik Mind Mapping karena nilai t-value > t-table (7.796 > 2.051) dengan nilai signifikan 0.05. Nilai rata-rata yang diperoleh dalam pre-test adalah 82.36 dan nilai rata-rata dalam post-test adalah 95.02. Nilai peningkatan diperoleh sebesar 10.16 dan aspek kemampuan membaca yang paling banyak peningkatannya adalah kosa kata sedangkan yang paling sedikit adalah menentukan informasi detail.

This research was aimed at examining: (i) whether there is significant increase on students' reading comprehension ability after being taught through *Mind Mapping* Technique of report text and (ii) the aspect of reading skills that increased the most and the least. The subjects of this research were 28 students in class X in academic year 2019/2020. The data in form of scores were collected using multiple choices and analized using SPSS 16.0. The result of this research showed that there was significant increased of students' reading comprehension to a report text after being taught through Mind Mapping technique since t-value > t-table (7.796 > 2.051) with significant value was 0.05. The average score of pre-test was 82.36 and the average score of post-test was 95.02. It gained 10.16 and the most increased aspect of reading skills is vocabulary whereas the least increased is finding detail information.

Keywords: mind mapping technique, reading comprehension, report text.

# INTRODUCTION

Broadly, English has many interrelationships with various aspects of life owned by human being. As it can be seen now, the more modern technology the world has, the more use of international language is needed. The use of English keeps increasing. Therefore, it is important for students senior high school to master English to be more competitive. English can be learned through productions (speaking and writing) as well as through receptions (listening and reading). Reading is one of the most important skills that needs to be comprehended well. It is supported by Afflerbach (2007:12) who says that reading is a dynamic and complex process that involves skills, strategies, and prior knowledge.

The process of reading does need a comprehension. The comprehension does really occur when the reader understands fully information and idea written in the text. There will be no reading when there is no comprehension. Nuttall (1982:17) stated that the purpose of reading comprehension is a part of the process of reading comprehension, that is characterized by the process when the readers get the messages and meaning of the text they have read. Furthermore, the message or the meaning conveyed can be in the forms of information, knowledge, and even happy or sad expression messages.

As stated in Curriculum 2013 of senior high school, one kind of text types that students should achieve is report text. According to Gerot and Wignell (1994: 196), the social function of report is to describe the way things are, with reference to a range of natural, man-made and social phenomena in our environment. Reports are used for finding specific things, which can bring facts and needs towards particular information.

Based on the researcher's observation, there are some difficulties faced by the first grade students of SMAN 2 Natar on report text. The first difficulty is that students find difficulty to identify the information in generic structure of report text. The second difficulty is that students do not really understand about language features on report text. The third difficulty is that students lack of vocabulary. The last, students find difficulty to understand the implicit meaning and conclusion of the text. One of the factors of students' problems is that the three phase technique used by the teacher is monotonous and the students do not have any challenge to read more and more.

Based on the problems stated above, the students need cooperative learning strategy to increase their reading skills. One effective way that can be used to help students build up their ideas in reading is through mind mapping technique. According to Buzan (2005:1), mind mapping is a very powerful tool for brainstorming, creative thinking, problem solving, organizing of ideas and of course, note taking. By using mind mapping, the readers can see the way that pieces of information fit together, as well as recording the raw fact contained in normal notes. It is a good way to make the students understand more about what they read. As has been said previously that mind mapping promote effectiveness and enjoyment in the classroom, so it can be assumed that this technique will be good to be implemented in teaching English, especially in reading skill.

Besides the theories, there are some previous researches that have been conducted. Firstly, Riska, Asib and Rais (2015) suggested that mind mapping technique can improve both the students' reading comprehension and the class situation when Mind Mapping is implemented in the reading class of the seventh year students of SMP N 3 Colomadu. Secondly, Suryani (2015) in her result of mind mapping, she stated that it stimulated the students to work based on their own actual capability. Thus, the students got more experiences and improved their achievement. In additionally, Bahareh and Abbas (2015) in a proved that mind mapping strategy was influential in enhancing the students' reading comprehension and null hypothesis was rejected. The findings of the study can assist teachers, instructors, teacher trainers and researchers in teaching reading comprehension. Furthermore, Buran and Filyukov (2015) suggested that mind mapping technique could encourage students' creativity, imagination and motivation in their learning process.

In summary, the researcher conviences that it is important to apply a more interesting teaching of reading comrehension by using mind mapping. It could be said that mind mapping technique is able to increase students' reading comprehension ability and their motivation. Therefore, the research was aimed at examining: (i) significant increase on students' reading comprehension ability after being taught through mind mapping technique of report text and (ii) the aspect of reading skills that increased the most and the least.

# METHODS

The population of this research was the first grade students of SMAN 2 Natar in academic year 2019/2020. The researcher took one class as the try out class, it was X MIPA 2 and the experimental class was X MIPA 1 that consisted of 28 students. This study applied a quantitative experimental design which used One-Group Pretest-Posttest design since this research only used one class as the experimental class to see the comparison of the result before and after the treatments (Hatch & Farhady, 1982). The variables of this research were mind mapping technique as the independent variable (X) and students' reading comprehension in report test as the dependent variable (Y).

Reading tests were used as the instrumen to find out how far teaching reading through mind mapping technique could increase students' reading comprehension. In analyzing the data, Paired Sample T-test (SPSS 16.00 for Windows) was used in which the significance was determined by p<0.05. Thus, H1 is accepted and H0 is rejected because the T-value was higher that T-table based on the df. In constructing the research, the research procedures went through these following stpes: (1) determining research instruments, (2) try-out the instruments, (3) administering the pre-test, (4) conducting the treatments, (5) administering the post-test, and (6) analyzing the data.

# **RESULTS AND DISCUSSIONS**

## Results

This research was aimed to answer the questions whether there was a significant increase of the students' reading comprehension after being taught through mind mapping technique and which aspect of reading comprehension that increased the most and the least. In order to find out the answer, several research procedures had been done which consisted of establishing the research instruments for pre-test, treatments, until conducting post-test. The data were taken from every procedure had been computed and analyzed to draw the answer.

The total of of pre-test score was 1647.5, mean score was 58.83, the highest score was 75 and the lowest score was 47.5. Furthermore, the highest score aspects in pre-test was detail information with the score 161 and the lowest score of aspects in pre-test was vocabulary with the score 87. After conducting pre-test and treatments, the researcher administered the post-test. This post-test was administered to measure the increase of students' reading comprehension through mind mapping technique.

From the results of the post-test score, it was found that the total of post-test score was 1901, mean score was 67.89, the highest score was 87.5, and the lowest score was 55. In addition, the most increased aspect of reading comprehension was vocabulary with the score 130 from pre-test score was 87 and the least increased aspect of reading comprehension was detail information with the score 172 from pre-test score was 161. In this research, Paired Sample T-test was used to test the hypothesis, in which the significance was determined by 0.00 < 0.05. The significant level was lower than 0.05. It meant that H1 was accepted and H0 was rejected. It proved that the T-value is higher than T-table based on df (7.796 > 2.051). Thus, it can be concluded that there was an increase of the students' reading comprehension after being taught through mind mapping technique at the first grade students of SMAN 2 Natar. In other other words, the hypothesis was accepted.

Furthermore, mind mapping technique can increase students' reading comprehension in all aspects of reading skills. The highest improvement was vocabulary with the increase amount to 5.38 points. Then, mind idea increased amounting to 2.38 points, inference increased amounting to 1.75 points, reference increased amounting to 1.75 points, and the lowest increase was detail information with the increase up to 1.38 points. It is now obvious that the technique applied in this research, mind mapping technique, is evidently effective to increase the students' reading comprehension, specifically reading report text. As can be noted, the aspect increases the most significant is vocabulary, then followed by mind idea, inference, references, and the last one is detail information.

### **Discussions of the Findings**

From the result of data analysis, it can be said that after being taught by mind mapping technique, the students could increase their ability of reading comprehension and the aspects of reading skills regarding to the results of pre-test to post-test. The results

indicate that the increase of students' reading scores in experimental class after the treatments are given. As mentioned before, there was an increase of the students' reading comprehension after being taught through mind maping technique. This result supported result of research by Riska, Asib and Rais (2015) who also found an increase in students' reading comprehension after the treatments of mind mapping technique. It proved that after getting the treatments the students' scores were higher and there was increase of students' average score from pre-test to post-test.

Based on the results, the findings did not only examine the significant increase of the students' reading comprehension, but also the increase of each aspect of reading skills. The most increase, as can be noted, was on vocabulary aspect. The increase of the students' score is because mind mapping technique helped the students' ability to match the synonyms or antonyms of the words quickly and they also already understand the meaning of the words. Moreover, the questions that came from the researcher during the treatment also increased their aspects of reading implicitly. For examples: "The word *heas*, has same meaning with?", "the antonym of the underlined word is?" and so on. The least increase was detail information aspect, because the questions of this aspect is easier than the other aspects, the students merely determined the informations about the setting, characters and events based on the text, so that the students do not have any challenges to answer the questions from detail information aspect. For examples: "how can dolphin help people?", "according to the text, what makes canned food not healthy?" and so on.

This finding is different from the previous study conducted by Suryani (2015) in her result of mind mapping, she stated that it stimulated the students to work based on their own actual capability. Thus, the students got more experiences and improved their achievement. Additionally, Bahareh and Abbas (2015) in proved that mind mapping strategy was influential in enhancing the students' reading comprehension and null hypothesis will be rejected. It can be inferred that mind mapping technique is appropriate, useful, and also applicable technique in teaching reading comprehension. Mind mapping technique also could encourage students' creativity, imagination and motivation in their learning process. This is also suported by Buran and Folyukov (2015) that mind maps help students solve problems, brainstorm creative ideas, remember new vocabulary, take notes, enhance their reading skills, organize the tasks and prepare presentations.

As described by Swan (2010), mind mapping is an important technique that improves the way to record information, enhances creativity, imagination, and also motivation, especially in drawing and coloring image to represent the information in mind mapping. When the students made a mind map, they depanded their ideas on the text they focus on the keyword of the text and should write the ideas down on their map. As the result, reading activity in learning reading is not as a difficult or bored activity. According to Buzan (2000), mind mapping makes us easy to get an overview of the entire project to understand a complicated system or structure because sometimes it is hard to see the big picture when there are thousands of factors to keep in mind and handiness contains single word and short phrases in mind mapping are easier to understand than pure text and mind mapping technique also helps the students to remember the information. It is because the symbol or picture used in the mind mapping can differentiate keyword or sub topic in students mind.

Referring to the research findings, it can be inferred that mind mapping technique provides a worthy contribution to the accomplishment of the teaching learning of reading comprehension. This technique helps English teachers to build students' reading ability and mind mapping has positive impact on reading comprehension.

### CONCLUSIONS AND SUGGESTIONS

On the whole, there is an increase of students' reading comprehension ability after being taught through mind mapping technique. It can be seen from the computation of the data which showed that the value of two-tailed significance is 0.000. It means that  $H_0$  is rejected and  $H_1$  is accepted since 0.00 < 0.05. It was proved by the increase of the students' mean score in the post-test which was higher than that of in the pre-test.

Students' mean scores in the pre-test was 82.36 and post-test was 95.02, with the score gain was 12.64 points. Furthermore, mind mapping technique is effective to develop students' reading comprehension ability, in terms of all aspects of reading ranging from the most to the least ability in: (1) vocabulary aspect, (2) followed by main idea, (3) inference, (4) reference, and (5) the last one was detail information. It can be concluded that there was significant increase of the students' reading comprehension ability. In this research all of the aspect of reading comprehension are increase, vocabulary increase the most and detail information increase the least.

Regarding to the conclusions, some suggestions are recommended. Firstly, for English teachers, they should shout brainstorm before asking the students to make mind mapping. It is important to make students know what they have to do with the text and what kind of information that they need to find from the text. Secondly, before having mind mapping technique, the teachers make a group discussion consisting of five students before applying mind mapping technique, in order to make the students well organized in making mind mapping. The last, in this research mind mapping technique was applied in teaching report text at the first grade of senior high school. Further researchers are suggested to conduct the research using mind mapping in other types of texts, like exposition, recount, or descriptive text.

#### REFERENCES

- Afflerbach, P. (2007). Understanding and using reading assessment K-12. Maryland: University of Maryland.
- Bahareh., & Abbas. (2015). The effect of mind mapping strategy on comprehending implicit information in EFL reading test. Teheran: Islamic Azad University.
- Buran., & Filyukov. (2015). *Mind mapping technique in language learning*. Tomsk: National Research Tomsk Polytechnic University.
- Buzan, T. (2000). The power of mind mapping: How to use mind maps to boost your creatifity, achieve faster success, greater result and develop winning ideas at the speed of thought. [Online]. Available at www.FortuneWell.com. Accessed on 2<sup>nd</sup> November 2019.
- Buzan, T. (2005). *The ultimate book of mind maps*. London: Harper Collins Publisher, Ltd.
- Gerot, L., & Wignell, P. (1994). *Making sense of functional grammar*. Sydney: Antipodean Educational Enterprises.
- Hatch, E., & Farhady, H. (1982). *Research design and statistic for applied linguistics*. London: New Bury House Production, Inc.
- Hobartswan. (2010). *Mind mapping: Learning and teaching with both sides of the brain.* [Online]. Available at http://www.thefacilitator.com/htdocs/Mind%20Mapping.pdf. Accessed on August 26th 2019.
- Nuttall, C. (1982). *Teaching reading skills in a foreign language*. Oxford: Heninemann publishers.
- Riska, Asib., & Rais. (2015). Improving students' reading comprehension through mind mapping. Solo: Universitas Sebeas Maret.
- Suryani, Lani. (2014). Improving students' reading skills by using mind mapping technique at SMAN 1 Kretek. Yogyakarta: Universitas Negeri Yogyakarta.