# The Effect of Using Mind Mapping in Comprehending Narrative Reading Text

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## Abstrak

Tujuan utama dari penelitian ini adalah untuk mengetahui apakah *Mind Map* dapat menjadi media yang efektif untuk mengajar Bahasa Inggris dalam membaca teks naratif. Penelitian ini dilakukan di Sekolah Menengah Kejuruan Negeri 1 Sidoarjo. Subjek penelitian adalah 66 siswa Teknik Audio Video kelas 10 tahun akademik 2018/2019. Metode dalam penelitian ini adalah semi - Eksperimental. Penelitian dilakukan dalam dua kelas, mereka adalah kelas kontrol dan kelas eksperimental. Data dikumpulkan melalui tes yaitu pre-test dan post-test. Hasil penelitian menunjukkan bahwa teknik *mind mapping* efektif digunakan dalam pembelajaran membaca teks naratif. Skor yang diperoleh dari kelas eksperimen (9,55) lebih tinggi dari kelas kontrol (5,15). Dari hasil perhitungan statistik, diperoleh bahwa nilai t-observasi (to) adalah 1,852 dan derajat kebebasan (df) adalah 64. Dalam tabel signifikansi 5%, nilai derajat signifikansi adalah 1,669. Membandingkan nilai-nilai itu, hasilnya adalah 1,852> 1,669 yang berarti skor t-observasi (untuk) lebih tinggi dari skor t-tabel (tt). Dengan kata lain, Hipotesis Alternatif (Ha) diterima dan Hipotesis Null (Ho) ditolak. Oleh karena itu, mengajar pemahaman membaca teks naratif dengan menggunakan teknik pemetaan pikiran adalah efektif.
**Kata Kunci:** Mengajar *Reading*, Teks Narrative, Mind Map

## Abstract

The main objective of this study is to find out whether Mind Map can be effective as a medium for teaching English in reading narrative texts. This research was conducted at the Vocational High School of 1 Sidoarjo. The research subjects were 66 students of the 10th grade Audio Video Engineering academic year 201819. The method in this study is semi-experimental. The research was conducted in two classes, they were the control class and the experimental class. Data was collected through tests namely pre-test and post-test. The results showed that mind mapping techniques are effectively used in learning to read narrative texts. Scores obtained from the experimental class (9.55) are higher than the control class (5.15). From the results of statistical calculations, it is obtained that the value of t-observation (to) is 1.852 and the degree of freedom (df) is 64. In the 5% significance table, the value of the degree of significance is 1.669. Comparing the values, the result is 1.852> 1.669 which means the t-observation score (for) is higher than the t-table (tt) score. In other words, the Alternative Hypothesis (Ha) is accepted and the Null Hypothesis (Ho) is rejected. Therefore, teaching an understanding of narrative text reading using mind mapping techniques is effective.
**Key Terms:** Teaching Reading, Narrative Text, Mind Map

## INTRODUCTION

The English language is a language that is used by people around the world. In this era, people need to be able to communicate using the English language as a tool of international communication. Because of that, this language should be given to in a country which is the English language used as a foreign language such as Indonesia. For Indonesian to be able to communicate with each other using English as their language, the government integrates English subject starting from junior high school. Later, they hope that Indonesian be able to use English as their second language in the future.

In learning language, there are so many things that may acquire in the process. Such as language skills and components. The language skills are reading, listening, writing, speaking and the language components are phonology, morphology, and orthography. Still, we have to remain that those skills are not being able to be learned by the students individually. Students should understand those skills by incorporated.

This study aims to improve students' ability in reading the narrative text. As it stated in basic competence 3.8 of grade X in Vocational Haigh School. The students need to understand a simple narrative text about a legend. There are many kinds of study that has been conducted by researchers about mind mapping. However, in this study, the researcher emphases on the reading skill for narrative text using mind mapping

It is well known that everyday students, especially from vocational high school, have to face a lot of written text. Such as in newspapers, guide books, articles, and many other kinds of written texts available in their school or on the internet. Some of those are English textbooks. So, to create vocational high school students easily understand the English language. The researcher believes that narrative text is an interesting text that makes the students interested in learning English subjects.

Thus If the students' interest in learning the English language higher, the researcher believes that the students will be learning the English language with enthusiast. Because if there is a will there is away. Although reading is important yet, in some schools, we may still be able to meet some students who reading skill at a low level. In fact, they had a problem with the meaning behind the sentences or paragraphs in the textbook. So they did not comprehend the textbook well. In the end, they become dislike the English subject.

reading is a complex process so in order to make reading less complex the teacher may use a certain method which can make the students reading enjoyable and effective (Cziko, Greenleaf, Hurwitz, & Schoenbach, 2000). To tackle the problems faced by the students a possible approach is explicitly seen in the teaching comprehension strategies. In this case, in order to make the students and the teachers do their reading activity well, the researcher tried to find an interesting and effective way of reading. One of the techniques is the mind mapping technique. Through using this method, the students are going to be able to comprehend the material clearly because it makes the text into simple demonstrations therefore, the students may understand the text faster.

Considering the issues presented above, the important role of reading is to make the students understand what they read. From the researcher's point of view, many students still have a problem in their reading. Therefore, it is needed in order to improve students' reading skills through mind mapping. We have to conduct research on those topics. It may lead to visualize and to discover links between those two in a reading material that they read. When the students may be able to symbolize the text in a diagram, they may be able to memorize or to analyze the part of the text. The researcher focused on X TAV 1 an X TAV 2 of SMK N 1 Sidoarjo because the students still have a little ability to understand the reading passage and they will be faced narrative text in their learning process

According to Buran (2015) "a mind map is a powerful tool which represents any information in a form of visual frameworks, using words, images, and numbers". They only need some keywords, some branches, imagination, color, and pictures to create mind mapping.

The mind map according to T. K. Tee and Co that cited Buzan (2014) has stated several advantages that help the reader to understand the text easily. The first is brainstorming. Second is easily memorize the text. The third is to summarize the text easily. Fourth is the information in the form of an interesting arrangement. Noonan (2013) also stated that Mind map can enhance midwifery education.

"teacher candidates previously not using mind maps stated that they can use in Visual Arts Education classes for ensuring the retention of knowledge" (Aykac, 2015)

According to Indrayani that cited in Buzan, (2014) stated that there are several components to create a mind map. They are: (1) Locating the subject of attention in the center of paper; (2) Locating the key theme of the subject as branches of the subject; (3) Comprising a key image or key word on an linked line; (4) Attaching topic of lesser to the higher level branches; (5) Forming the branches into connected model structure

A review of the previous study is created to avoid repetition. This study is planned mind mapping as a technique in improving students reading skills. Some researchers already conducted research about mind mapping to improve reading skills in general. The first is a study conducted by Suryani (2015). Her study entitled "Improving Students' Reading Skills by Using Mind Map Technique at SMA N 1 Kretek in the academic year of 2013/2014" It had shown that the application of the mind mapping technique in improving reading skills in general. The next study is from Mirza (2016). In her study entitled "The Use of Mind Mapping Strategy to Improve Students' Speaking Ability" She found a useful graphic strategy for improving speaking ability. Moreover, this study conveys a research question to direct the detail of this study.

1. How is the effect of mind mapping technique to improve students' reading comprehension of grade X students in SMK N 1 Sidoarjo?

The result of this study is wished to be used as theoretical and practical in the teaching-learning process. Because mind mapping is one of the techniques that easy to use and easy to understand. In order to make the teaching learning environment become more enjoyable for the students. The teachers have to be knowledgeable about the teaching method or technique in order to make the learning process for the students become enjoyable, interesting and the important part is to become effective. The students have to read a lot so that they have a habit of reading. Both the teachers and students have to collaborate well in order to make teaching technique become well process.

This study will contain some aspect related to the mind map such as the way how to teach and the way how to use. This study focusing on how to improve the students reading comprehension through a mind map. The result of this study is mind map is effective in

improving students' reading comprehension for vocational high school in first grade. Thus further research is needed in order to know the mind map is effective or not in teaching Senior High School

## METHODOLOGY

This research was conducted quantitatively through quasi-experimental design. Quasi-experimental research designs are the most widely used research approach employed to evaluate the outcomes of social work programs and policies.(Thyer, 2012). The quasi-experimental design focuses on treatment and outcome, therefore the pre and posttest were conducted in order to find the data. Validity and reliability of the test are also conducted to make the test is valid and reliable. In this research design, there are two kinds of classes that the researcher used. There is the experimental class and control class which are used mind mapping technique and traditional technique. This study was held in SMKN 1 Sidoarjo which is located on Jl. Monginsidi No.71, Sidokumpul, Sidoarjo 61218. From January 17th, 2019 to January 31th, 2019 in the even semester 2019/2020.

In this Research, the population was the first-grade students of SMK 1 Sidoarjo. There are five major classes, there are *Teknik Audio Video*, *Teknik Gambar Bangunan, Teknik Pendingin* and *Teknik Mesin, Otomotif*, thus the technique used for sampling was quota sampling. Therefore the sample is 2 classes of *Teknik Audio Video*.

This study is focused on students' scores in reading comprehension of narrative text. The researcher designed three meetings in this study. In the first meeting, before the students are given the materials the students as the sample in this research were given a test (pre-test) to know the background knowledge of the students. After this, the students were given the materials. The second and third meeting the students were given the continues of the materials in the first meeting. Here we give a different technique. The control class gave conventional technique while the experimental given mind map technique. In the las meeting before the students go home. The researcher gave the students the last test (post-tets) to know whether the technique is effective or not. The data are used to know the differences in student 'score in control class and experimental class. The researcher uses SPSS (Statistic Product and Statistic Solution).

### Treatment

As this is a type of experimental research, so the researcher needed to make the environment of the class is the same way as the researcher wanted. In order to make that happened, the researcher had already made a lesson plan and asked the teacher to make the researcher becoming a teacher in a certain period.

The phase-in giving the treatment to the experimental class is using mind mapping in teaching the narrative text.

### The First Meeting

In this meeting, the researcher in this project was going to become a teacher to teach narrative text using mind mapping as media to the vocational high school of 1 Sidoarjo. The sample was two classes of 10th grade. The first meeting was an introduction of the materials to the samples. Before the researcher explained the materials, the researcher asked them to answer the pre–test that the researcher has prepared before. The researcher as a teacher was explaining narrative text. Whether it is the meaning or the structure of narrative text. In this meeting, the researcher also introduces the media to make an understanding of narrative becoming easier.

### The Second Meeting

In this meeting, first, the researcher gave some knocking to the students to remember the materials that have been explained in the previous meeting. The researcher asked the students what we were learned in the previous meeting and the researcher asked them to retell what we learned before. In the previous meeting, the researcher has introduced mind mapping to the students. In this meeting, the researcher explained more detail about mind mapping. Whether it is what the function, what the use, what the benefit, what the disadvantages and how to use mind mapping in order to make the students understanding narrative easier. After this, the researcher asked the students to make mind mapping in groups about the character in Malin Kundang story. They could use anything to draw or to make the mind mapping such as coloring pen or crayon. They could write or draw the character of Malin Kundang. This case was important because it was making the students easier to memorize the contents. After they make the mind mapping. The researcher asked them to present in front of the class and to discuss together. This is self-assessment so that the students will know the answer right away (Brown, 2004). At the end of this meeting the researcher gave them an additional explanation of their work and encouraged them to use mind mapping in the other structure of a narrative text.

### The Third Meeting

At the first of this meeting, the researcher asked the students whether they still remembered the materials that we discussed in the previous meeting. The researcher gave an assignment to the students related to the structure of narrative text in some of Indonesia's legend stories, such as Lake Toba, Roro Jonggrang and the others. After this, the researcher discussed the answer together with the students. Then the researcher explained briefly how to use mind mapping in the other structure of narrative text. After this, I asked them to make mind mapping based on the structure of one narrative text that the researcher prepared before. It is ants and elephants. Why the researcher has chosen the text because the researcher believes that the text is the easiest text using the easiest vocabulary. Of course, they do it in groups. After they

finished the task. The researcher asked them to do the Post-test until the end of the class.

**RESULT AND DISCUSSION**

This part is planned to get an answer from the research question that mind mapping effective or not in improving students' reading comprehension achievement at first grade of SMKN 1 Sidoarjo. T-test was used in order to find out the answer to this research question that conducted in both classes (experimental and control class) using SPSS software

Table 1 Pretest score

**Group Statistics**

| | Kelas | N | Mean | Std. Deviation | Std. Error Mean |
|---|---|---|---|---|---|
| Pretest | Experimental Class | 33 | 75,30 | 15,858 | 2,760 |
| | Control Class | 33 | 73,79 | 15,157 | 2,638 |

**Independent Samples Test**

| | | Levene's Test for Equality of Variances | | t-test for Equality of Means | | | | | 95% Confidence Interval of the Difference | |
|---|---|---|---|---|---|---|---|---|---|---|
| | | F | Sig. | t | df | Sig. (2-tailed) | Mean Difference | Std. Error Difference | Lower | Upper |
| Pretest | Equal variances assumed | ,035 | ,951 | ,397 | 64 | ,693 | 1,515 | 3,819 | -6,113 | 9,144 |
| | Equal variances not assumed | | | ,397 | 63,870 | ,693 | 1,515 | 3,819 | -6,114 | 9,144 |

The table above showed that the score of a significant difference is .693. The significant level of 0.693 is higher than 0.05 and it shows that there is no significant difference. So it can be concluded that the pretest that conducted in both experimental and control class are equal. The experimental class got 75.30 as the mean score while the control class got 73.79 as the mean score. The mean difference is 1.515 and the interval of difference is between -6.113 and 9.144.

Table 2 Posttest Score

**Group Statistics**

| | Kelas | N | Mean | Std. Deviation | Std. Error Mean |
|---|---|---|---|---|---|
| Postest | Experimental Class | 33 | 84,85 | 10,269 | 1,788 |
| | Control Class | 33 | 78,94 | 10,289 | 1,791 |

**Independent Samples Test**

| | | Levene's Test for Equality of Variances | | t-test for Equality of Means | | | | | 95% Confidence Interval of the Difference | |
|---|---|---|---|---|---|---|---|---|---|---|
| | | F | Sig. | t | df | Sig. (2-tailed) | Mean Difference | Std. Error Difference | Lower | Upper |
| Postest | Equal variances assumed | ,596 | ,443 | 2,335 | 64 | ,023 | 5,909 | 2,531 | ,854 | 10,964 |
| | Equal variances not assumed | | | 2,335 | 64,000 | ,023 | 5,909 | 2,531 | ,854 | 10,964 |

The table above showed that the score of a significant difference is .023. The significant level of 0.023 is lower than 0.05 and it shows that there is a significant difference because of the treatment. The experimental class got 84.85 as the retan score while the control class got 78.94 as the mean score. The mean difference is 5.909 and the interval of difference is between .854 and 10.964.

The last, to know the comparison between both classes. The researcher use t-test measurement to the gained score. The gained score is calculated by calculating how much the students gained from deducting post-test scores with pre-test scores. To answer the alternative hypothesis. It is from the significant difference of the gained score. On the other hand, the gained score is to make the statistical calculation of the improvement score stronger.

Table 3 Gained score

**Group Statistics**

| | Kelas | N | Mean | Std. Deviation | Std. Error Mean |
|---|---|---|---|---|---|
| Gained | Experimental Class | 33 | 9,55 | 10,183 | 1,773 |
| | Control Class | 33 | 5,15 | 9,056 | 1,576 |

**Independent Samples Test**

| | | Levene's Test for Equality of Variances | | t-test for Equality of Means | | | | | 95% Confidence Interval of the Difference | |
|---|---|---|---|---|---|---|---|---|---|---|
| | | F | Sig. | t | df | Sig. (2-tailed) | Mean Difference | Std. Error Difference | Lower | Upper |
| Gained | Equal variances assumed | ,166 | ,685 | 1,852 | 64 | ,069 | 4,394 | 2,372 | -,345 | 9,133 |
| | Equal variances not assumed | | | 1,852 | 63,139 | ,069 | 4,394 | 2,372 | -,346 | 9,134 |

Form the tables above. It can be seen that the difference is significant. Based on the table, the t-observe is 1.852. By using the degree of freedom 5%, the value of the degree of significant is 64 as stated in the t-table is 1.669. So, the result of the post test score between experimental and control class. The experimental is higher than the control class. The result of the comparison between t-observe and t-table is 1.852 > 1.669 = t-observe > t-table.

In order to prove the hypothesis, the data that obtained from both experimental and control class were calculated using t-test with the hypothesis:

- If t-observe > t-table, the alternative hypothesis (Ha) is accepted and the Null Hypothesis (Ho) is rejected. It is proven that "Using mind mapping technique is effective in improving students' reading comprehension of narrative text at the first-grade students of *Teknik Audio Video* SMK N 1 Sidoarjo."
- If t-observe < t-table, the alternative hypothesis (Ha) is rejected and the Null Hypothesis (Ho) is accepted It is proven that "Using mind mapping technique is not effective in improving students' reading comprehension of narrative text at the first-grade students of *Teknik Audio Video* SMK N 1 Sidoarjo."

According to the explanation above. The result is there is a significant difference in post-test score between experimental and control class. From the result can be concluded alternative Hypothesis is accepted and the null hypothesis is rejected as using mind map is effective to teach reading comprehension about narrative text especially legend text. In other words, mind mapping is effective for teaching reading legend text in first grade TAV SMKN 1 Sidoarjo.

## CONCLUSION AND SUGGESTION

### Conclusion

This research was meant to discover whether mind mapping is effective or not in teaching reading narrative text especially about legend text it was conducted by using quasi-experimental design. Based on the result that shows above, there is a significant difference between teaching narrative text with and without mind mapping technique. The result is the t-observe is higher than the t-table (1.852>1.669). From the result can be concluded alternative Hypothesis is accepted and the null hypothesis is rejected at the significance level 5. Therefore, mind mapping is effective for teaching the reading of narrative text about legend text in first grade TAV SMKN 1 Sidoarjo.

### Suggestion

First, the teachers have to be knowledgeable about the teaching method or technique in order to make the learning process for the students to become enjoyable, interesting and the important part is to become effective. Second, the students have to read a lot so that they have a habit of reading. Third both the teachers and students have to collaborate well in order to make teaching techniques become well process. Fourth the researcher wants to make the others to continue the research of mind mapping in other areas.

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