

## Improving Reading Comprehension Using Semantic Mapping at MA Bilingual-Krian Sidoarjo

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### **Abstract:**

*The research is intended to describe the effective way of teaching reading comprehension using semantic mapping technique at MA Bilingual School Krian-Sidoarjo. The researcher analyze the finding of some phenomena by using semantic mapping technique and the result of the researcher findings was much more beneficial to most teachers, curriculum developers, and to those who have much concern with developing the students' reading comprehension ability*

*The design applied in the research is a collaborative classroom action research. This classroom action research is conducted at MA Bilingual School which is located on Jl. Junwangi No. 43 Krian Sidoarjo, East Java. The subject of the research is students of MA Bilingual School Krian-Sidoarjo in the first class of the first semester in the academic year 2020/2021. The researcher conducted the study by following the procedure of the action research, which is recycle process starting from planning the action, implementation, observation and reflection. Data analysis of this researcher refer to the researchers procedure in analyzing the data gathered from the observation interview, field notes, and tests in the planning, Implementation, and evaluation stage.*

*Having conducted three cycles of implementing the semantic mapping technique, some evidences are found in relation to the students' improvement in reading comprehension skills. The findings of this study show that the use of the semantic mapping technique required of good planning refers to decisions that are made about organizing, implementing and evaluation a lesson illustrated as follows: in cycle 1 (91,7) cycle 2 (96,6) and cycle 3 (98.3). Meanwhile the implementation of the semantic mapping technique in the Pre-, the Whilst-, and the Post-Reading Phase. It described Cycle 1 (83.50%) cycle2 (89.10%) and cycle 3 (98.30%) in the teacher's performance and in cycle 1 (81.60%), cycle 2 (89.10%), and cycle 3 in the students' performance (98.30%). And for Evaluation on the Process of Teaching-Learning Reading Comprehension Using Semantic Mapping Technique in cycle 1 was Fair (2.2, in cycle 2 was Fair (2.6), and in Cycle 3 was Fair (2.8). The score result of students' test in each cycles in comparison to the students' reading comprehension prior to the implementation of the action, the data shows that the students are having an improvement on reading comprehension. It was proved by the increase of the students' mean score from 67.54 in the preliminary study to 73.25 in cycle 1, 78.67 in cycle 2, and 81.43 in cycle 3.*

*In general, it can be said that the technique is advantageous for the students. More specifically, it is very helpful for the students. It was proved by their mean score that gradually increased in each cycle. To sum up, it can be said that the students' reading comprehension improve because of the implementation of the semantic mapping technique in the teaching-learning of reading comprehension*

**Key words:** *Action research, semantic mapping, technique, reading comprehension.*

## **Introduction**

Reading, one of the receptive language skills that a learner should acquire, besides listening, speaking and writing. Reading becomes a crucial activity in people's life, because by reading someone has comparative superiority than others. Besides, reading can widen people's thought and give an opportunity to the readers to think, contemplate, and reflect that finally, reading leads people to have an intellectual culture than entertaining. Although reading is obviously very important, but we cannot deny the fact that it is still a real problem for the students to gain information written in English. And it happens that the students of Madrasah Aliyah Bilingual school which is located on Jl. Junwangi No. 43 Krian, Sidoarjo also experience that problem.

Based on the preliminary study at MA Bilingual School Krian-Sidoarjo, the researcher finds that there are several problems faced in teaching reading comprehension at 1<sup>st</sup> grade of MA Bilingual. Those problems are: 1) students have low motivation and passive in the teaching-learning reading process, 2) the teacher still uses a monotonous teaching despite of appropriating teaching strategy. In the term of the successful teaching-learning foreign language process, particularly dealing with teaching reading comprehension, the researcher analyze the finding of some phenomena by using semantic mapping technique and hoping the result of the researcher findings would be much more beneficial to most teachers, curriculum developers, and to those who have much concern with developing the students' reading comprehension ability.

Based on the facts that happen in the classroom, therefore, the researcher chooses the subject of present research and to find a solution to the problems in the teaching-learning of reading comprehension mentioned above by conducting a classroom action research. The major research question is "How is semantic mapping technique used in improving students' reading comprehension skill at MA Bilingual School Krian-Sidoarjo?" the question is then elaborated into following minor questions: (1) how does the teacher develop the planning stage of semantic mapping technique to improve the students' reading comprehension. (2) how can semantic mapping technique be developed to improve students' reading comprehension at MA Bilingual School Krian Sidoarjo in the implementation stage. (3). how can semantic mapping technique be developed to improve students' reading comprehension at MA Bilingual School Krian Sidoarjo in the evaluation stage

The research is intended to provide both theoretical and practical contributions in line with the teaching of reading comprehension. Theoretically, the results of this study will be a benefit of the use of semantic mapping in teaching and learning English skills, especially reading comprehension skills. Practically, it is advantages for the English teachers and the students. For the English teachers, the researcher provides an alternative strategy in teaching reading comprehension skills in SMA level as well as improving their teaching. Meanwhile, for students, the result is a strategy, as a variation of learning activities, to comprehend a reading text easily and to improve their reading comprehension skills

## **Research Design**

The design applied in the research is a collaborative classroom action research as Kasbollah and Sukanyana (2001: 9) and Mc Niff (1992:1) stated on action research. This research focused on a

particular classroom or group of students and aimed to solve the teacher's problem in finding an appropriate technique in the teaching-learning reading comprehension at MA Bilingual School by using certain actions that could give good impact in increasing the students' comprehension.

This classroom action research was conducted at MA Bilingual School which is located on Jl. Junwangi No. 43 Krian Sidoarjo, East Java. The subject of the research was students of MA Bilingual School Krian-Sidoarjo in the first class of the first semester in the academic year 2020/2021. Since there were three classes of the first grade, the researcher selects one of them for the research. The selected class was class X-IPA1, it consists of 29 students. The class X-IPA1 selected because the class consist of various students level. There are 9 students in the good quality, 12 students in the enough quality, 8 students in the poor quality and all the students are taken as the subjects of this research.

## **Research Procedure**

Prior to the implementation of the action research, the researcher started the study with the preliminary observation. It was done for identifying the real problems in the teaching-learning of reading comprehension as well as finding out general description about students' ability in the study of English subject. So that the researcher applies some acts to improve students' reading comprehension ability.

After the preliminary observation, the researcher conducted the study by following the procedure of the action research, which is recycle process starting from planning the action, implementation, observation and reflection.

### **1. Planning**

In this stage the collaborative teacher design a lesson plan. The lesson plan was developed based on the draft of Ccurriculum 2013, and showed the main competency that the students need to acquire. After lesson plan has been designed, it was assessed by the validator. There were two validators as assessor of the lesson plan. The designed lesson plan, included the following item: (a) Selecting the instructional materials and media, (b) The Instruments, (c) The Criteria of Success

### **2. Implementation**

The implementation of the technique was carried out by referring to the procedures of using semantic mapping in the teaching of reading comprehension. The activities in this phase that was done by the teacher are as follows:

In the pre-reading phase: (a) The teacher explained the objectives of the meeting, (b) The teacher geared the students' attention to the topic by asking question and/or by using media, (c) The teacher drew a big oval as a core of semantic mapping and put the topic in it, (d) The teacher simulated the students' prior knowledge on the topic by brainstorming or predicting, (e) The teacher and students classify the information and add another ovals, which show the additional information, (f) The teacher grouped the students into 6 groups consisting of 4-5 students.

In the whilst reading: (a) The teacher asked the students to read the text for few minutes, (b) The teacher asked the students to discuss the text with their group, (c) The teacher asked the students to find the main idea and the supporting ideas, (d) The teacher asked students to make their own semantic map filled with the information gamed during the group discussion.

In the post reading phase: (a) The teacher asked the students to report their work based on semantic mapping they have made, (b) The teacher discussed the text with the students, (c) The teacher asked the students to put additional information from the text on the blackboard to complete the map, (d) The teacher gave a formative test to the students, (e) The teacher asked feedback from students on the technique used and or gave a follow up activity

### **3. Observation**

In the observation phase there were several activities to be done by the researcher. It was done to collect the data needed to answer the statement problem. The way to collect data was divided into some steps as follows:

#### a. Data Collection Procedure

There were three data collections involved in the data collecting procedure as follows:

##### 1). Planning Stage

The data on the planning was lesson plan that include the specific instructional objectives, the instructional material and media, the teaching and learning activities, and the evaluation Next, the criteria of success, and formative test.

##### 2). Implementation Stage

The data on the implementation stage include the process of using the semantic mapping technique in the pre-, whilst-, and post-reading phase it is the form of field notes and observation on the teacher and the students during the teaching and learning activity.

##### 3). Evaluation Stage

The data on the evaluation was done in the process and result of teaching–learning of reading comprehension using semantic mapping technique. The process evaluation contained the evaluation on the activities done by the students in each phase pre-, whilst, and post- activity. Meanwhile the result of evaluation in the teaching-learning of reading comprehension, the teacher administrated the formative tests, which consist of 10 questions. The questions cover 4 literal comprehension questions and 6 interpretive comprehension questions.

#### b. Data Analysis Procedures

The procedures of data analysis of this research refer to the researcher's procedure in analyzing the data gathered from the planning stage, implementation stage and evaluation stage. The data analysis processing procedure described on this diagram:

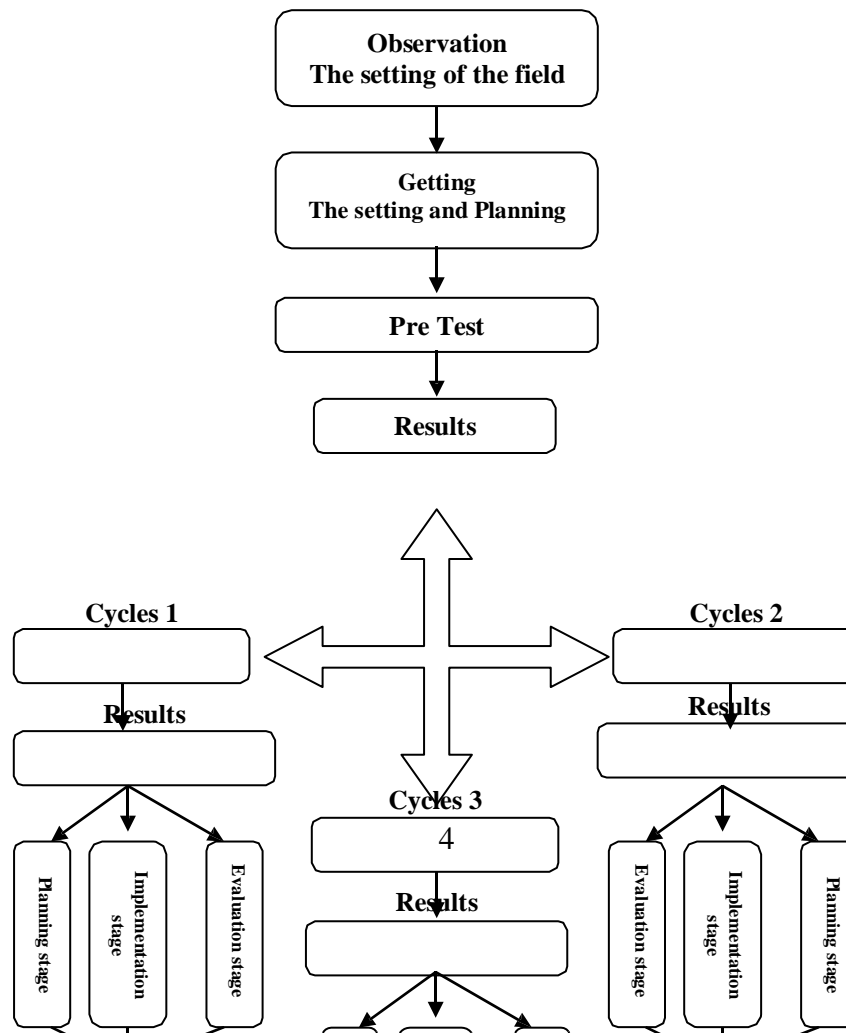


Figure 1. Diagram of Data Analysis Technique

Based on the diagram above the procedure of collecting data in detail elaborated as follows:

- 1). Observation the Setting of the Field/Preliminary observation
- 2). Planning Stage
- 3). Implementation Stage
- 4). Evaluation stage

**c. Analysis and Reflection**

At the end of the cycle both the researcher and the collaborative teacher had a reflection to measure the success of using the semantic mapping technique.

**Data Analysis**

Data analysis of this researcher refer to the researchers procedure in analyzing the data gathered from the observation interview, field notes, and tests in the planning, Implementation, and evaluation stage.

**DATA ANALYSIS AND RESEARCH FINDINGS**

**A. The Result of Analysis in Cycle 1**

To find out whether the action is successful or not, the researcher and the collaborative teachers analyze the three stages, namely the planning stage, the implementation stage, and the evaluation stage. The result of analysis is discussed in detail below:

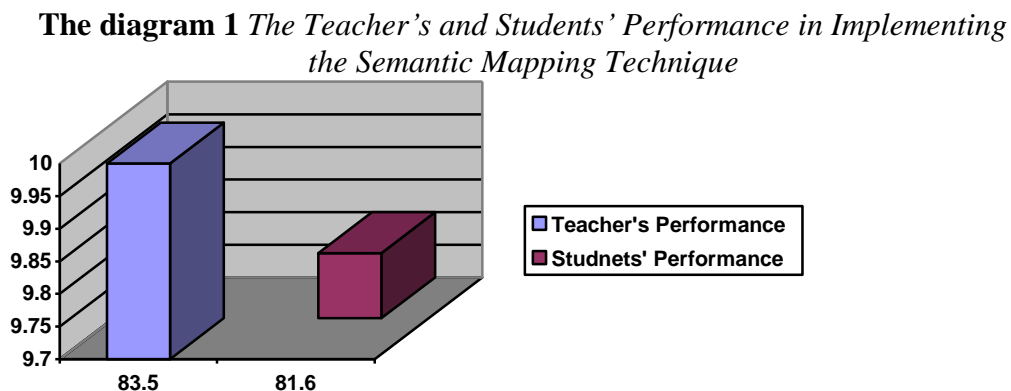
**1. The Planning Stage/Lesson Plan**

The analysis result in the planning stage showed that the design of lesson plan in teaching-learning process using semantic mapping technique in cycle 1 is illustrated in detail as follows.

Taking all into consideration, it can be concluded that the lesson plan of cycle 1 given by evaluator 1 and 2 is categorized as “very good” (total score 22). It means that the quality of the lesson plan in the cycle 1 categorized as very good and the success of the plan is 91.7% achieved. Although, the quality of lesson plan generally reaches very satisfied result, it shows that there is an aspect to be revised in the planning of the next cycle. The aspect is the instructional media which should be more interesting and varied.

## 2. The Implementation Stage

The analysis of teaching-learning process was done on the basis of the obtained information in the observation sheet/guidelines for the teacher and the students, the field notes, and interview. The information is about the teacher's and the students' activities in the classroom and the students' opinion about the technique. Based on the guidelines of observation of the teaching-learning of reading comprehension using semantic mapping technique, some evidence are found that in general, the teacher's performance in implementing the semantic mapping technique is rated as "good" (total score 10) and the success achieved is 83, 5%. On the other hand, the students' performance is rated as "good" (total score 9.8) and gain only 81, 6% of the success. It illustrated as diagram below:



Based on the observation of the teacher's performance and interview of some students, it reflects that the teacher in conducting the teaching-learning process still finds difficulties in managing the class because the teacher dominates the class and the technique is still unfamiliar to the students. Meanwhile, it is found that the students are quite enthusiastic using the new technique. Some of them (FR, ZF, and HN) say that making the semantic map is a challenge for them in understanding the reading text. Nevertheless, some of them still find it rather difficult to construct the semantic map (YA, SS and SK). Besides, they feel can't work in a team because they do not recognize well their member and it hampers them to discuss their work. They prefer to choose their own members so that it will be easier for them to discuss the reading text. It can be concluded that the implementation is not satisfying yet due to the difficulties encountered by the teacher (class and time management) and by the students (making the semantic map, discussing the text, and expressing their opinion or problems to the teacher)

Therefore, the implementation of the action still needs to be improved so that it can reach the target stated in the criteria of success of this research. The improvement is as follows: in the pre-reading phase, the teacher should be able to encourage the students to express their opinion on the topic discussed. At the same time, the students should concentrate more on the teacher's explanation and be more active in doing the brainstorming activity although they are not familiar with the teacher. In the whilst-reading phase, the teacher is expected to be able to manage the time to help/guide discussion. Meanwhile, the students are expected to be able to discuss with their group members although they are

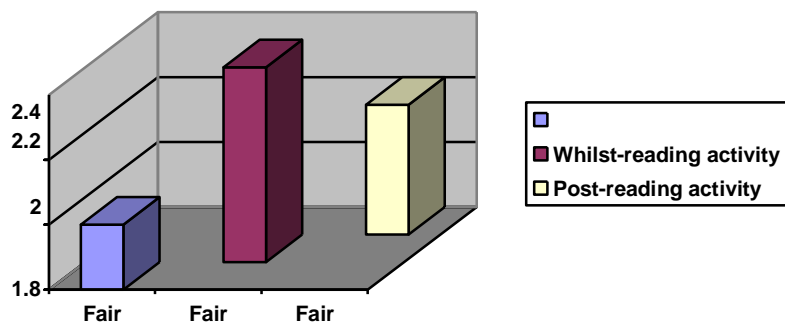
not satisfied with the grouping. Lastly, in the post-reading phase the teacher should change the instruction so that the students can report their work orally.

### 3. The Evaluation Stage

The evaluation stage was done on the process and result of the teaching-learning of reading comprehension using the semantic mapping technique. The process evaluation contains the evaluation on the activities done by the students in each phase.

Based on the data above the activity in evaluation stage, both observers categorized the activity in evaluation stage as “fair” (half of the students do the activity). It means that the evaluation stage of teaching-learning reading comprehension using semantic mapping categorized need to be improved in next cycle as follows:

**The diagram 2.** *The Evaluation Stage each phase in Teaching-Learning Process*



In addition to the process evaluation, evaluation on the result is done in the form of a formative test which is conducted to measure the students' achievement in reading comprehension. The result of the test in the second meeting are all collected and analyzed by the researcher.

From the test result, it is shown that there is an increase on the students' mean score. The students' mean score is improved from 67.54 in the preliminary study of 73.25 in cycle 1.

Besides the mean score, the score of each student is also increased. Most of the students have improved their score. There were 19 students out of 29 who succeeded in improving their score. However, ten students (HN, IA, ZF, ZB, FR, MT, FA, SN, UR, and CS) can not increase their scores due to the fact that they find difficulties with the new technique used. In general, it can be said the semantic mapping technique can improve the students' comprehension. Despite of the improvement, the target of this study is not achieved yet.

Based on the analysis, the reflection, and the finding in cycle 1, it can be summarized that the teaching-learning of reading comprehension using the semantic mapping technique does not give satisfactory result on the students' performance and achievement in reading comprehension yet. Taking all this into consideration, this action research should be continued to the cycle 2.

## B. The Result of Analysis in Cycle 2

### 1. The Planning Stage



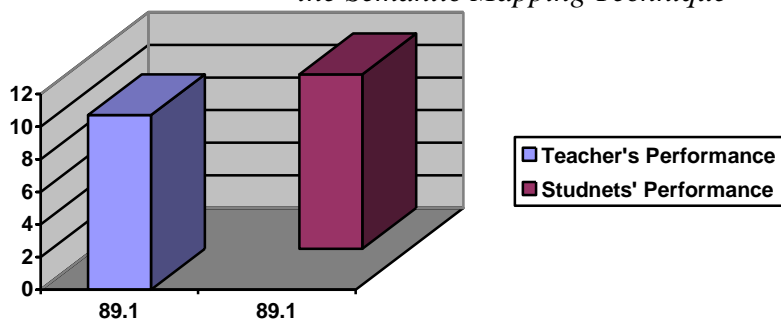
The analysis result in the planning stage showed that the design of lesson plan in teaching-learning process using semantic mapping technique in cycle 2 are not many differences between the lesson plan in the first cycle, the analysis is focused on two aspects, namely: the instructional material and the instructional media.

Having an improvement on the instructional media, the success of the planning increased up to 96.6%. The lesson plan in the second cycle is categorized “very good” (total score 23.2). It shows that still there is a component to be improved in the planning of the next cycle. The component is the instructional media which should be more varied not monotonous.

## 2. The Implementation Stage

The focus of analysis on the implementation stage was on the students’ and the teacher’s performance during the teaching and learning process. Regarding the implementation in the cycle 2, it is found that the teacher’s performance in general is considered “good” (total score 10.7). It indicates that she can achieve the success up to 89, 1%. Despite, the fact it is the first time for the teacher to use the technique, it is quite satisfactory. Similarly, the students show and improvement on their performance which is regarded “good” (total score 10.7). To be compared with cycle 1 this aspect is achieved up to 89, 1% in cycle 2. It is illustrated as follow:

**The diagram 3.** *The Teacher’s and Students’ Performance in Implementing the Semantic Mapping Technique*



In addition, based on the observation to the teacher and interview of some students after two meetings in cycle 2, it is found that the teacher is very happy to know that the students are actively involved in the pre-reading activities. Yet, they realize that she uses too much time in this phase. Besides, she can not give sufficient guidance, assistance to all groups. Meanwhile, the students say that they are more enthusiastic using the technique especially when they have to do brainstorming activity in the pre-reading phase and make the semantic map based on their information on the topic, they say that as soon as the flash cards are shown, they are able to uses what topic is to be discussed and expressed their opinion on the topic. Besides, since they have done the activity before, it is quite easier for them to classify the information gained. Moreover, it is not as difficult as it used to be in understanding the content of the text because they have a brief description about it from the semantic map made in the pre-reading activities. However, they comment that it is more difficult to find some of the main ideas which are implicitly stated. They also complain that the teacher who sometimes spend too much time to guide a certain group. In spite of this, they feel it is easier to do the formative test by learning the learning the content of the text through semantic map.

Some revisions on the implementation of the semantic mapping technique are made so that it can reach the target stated in the criteria of the success of this research. They are as follows: in the pre-reading phase, the teacher should be able to manage the time so it will not take too much time for the



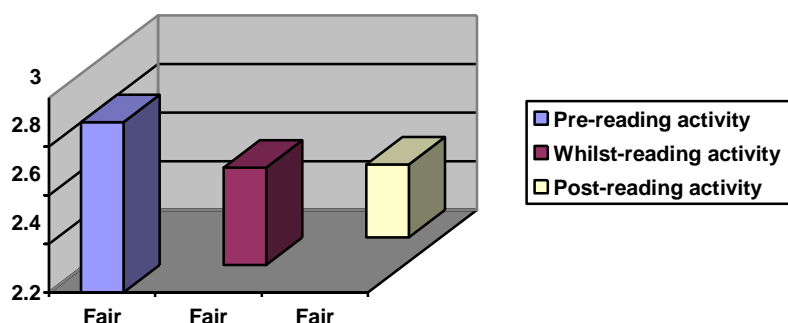
students to do the next phase in class instead of at home. In the whilst-reading phase, the teacher is expected to spend time proportionally in guiding or helping the groups in finding the main and supporting ideas as well as in making their semantic map. She should not pay too much attention to some groups while the tests are ignored. Meanwhile, the students are expected to be able to work on the assignment in class, especially in making the semantic map of their version. Finally, in the post reading phase the teacher is expected to be able to encourage the students to report their work orally or give comment on the friend's work.

### 3. The Evaluation Stage

The evaluation was done in the process and result of the teaching-learning of reading comprehension using the semantic mapping technique. The process evaluation contains the evaluation on the activities done by the students in each phase. Compared with the process evaluation in the cycle 1, there is an improvement in each phase.

Based on the data shows the activity in evaluation stage, both observers categorized the activity in evaluation stage as "fair" (half of the students do the activity). Although in the activity of evaluation stage got the same criteria the score is increased than the previous activity as follows:

**The Diagram 4.** *The Evaluation Stage each phase in Teaching-Learning Process*



Meanwhile, the result of the formative test administrate in the second cycle also implies that there is a progress in the students' achievement though it is still below the target. From the test result, it is shown that there is a significant increase on the students' mean score compared with cycle 1, the students' mean score is improved from 73.2 to 78.67 in cycle 2.

An improvement is also achieved in terms of students' score. Like in cycle 1, most of the students (22 out of 29 students) have improved their score. However, there are seven students (HS, MT, MS, SN, SK, SL, and SA) whose scored decrease. It is due to the fact that they feel unfamiliar with this new group. In this case, the target of the study is not achieved yet.

Pertaining to the analysis, the reflection, and the findings on the planning, the implementation, and the evaluation stage in the cycle 2, it is concluded that the students have reached a significant improvement in their reading comprehension even though it has not significantly reached the target set up, due to it; this action research was continued to the cycle 3.

## C. The Result of Analysis in Cycle 3

### 1. The Planning Stage

The analysis on the planning stage was focused on the design of lesson plan in teaching-learning using semantic mapping technique in cycle 3. It is done based on the corresponding to the

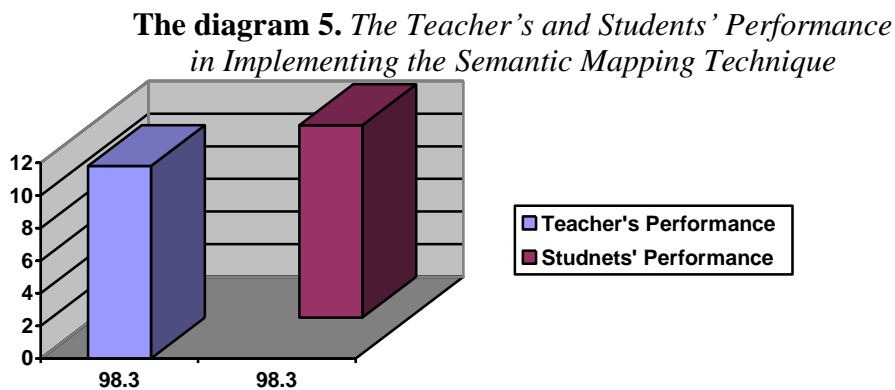
reflection in cycle 2, the researcher and the collaborative teacher focus the analysis on certain aspect, namely: the instructional material and the instructional media.

Since the other aspects in cycle 3 are not different from those in the previous cycles, the score for each aspect remained the same. Therefore, the lesson plan in the cycle 3 with an achievement up to 98.3% is considered “very good” (total score 23.6) like that in the second cycle. It is due to the fact that the instructional material in cycle 3 is not interesting to the students.

## 2. The Implementation Stage

Focusing on the students’ and teacher’s performance during the implementation, the analysis, and the reflection is made on the basis of the observation sheet/guidelines and interview.

Concerning all information mentioned before, the teacher performance in general is rated as “very good” (total score 11.8). She can active the success up to 98.3%. Similarly the students also make performance on their performance. Having achieved the success up to 98.3%, their performance is regarded as “very good” (total score 11.8).



In addition, based on the observation of the teacher and interview of the students, the teacher says that she is already used to implement the technique so she can perform it other classes. Yet, she affirms that to implement the technique a teacher should be able to manage the time so proportionally that it will not take very long time. Like the teacher, the students also state that they are used to the technique. One of them (PS) said that he can used technique and reading material of other subjects. The other students admit that by using the technique they can comprehend the text much easier. The fact shows that they are enthusiastic about the technique. Nevertheless, they make a complaint on the text used in this meeting whose topic is not familiar to them.

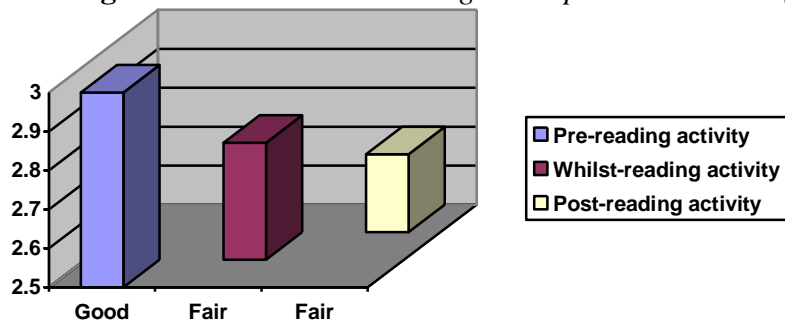
To summarize, it is shown that the students are able to use the semantic mapping technique in reading comprehension. It is indicated by their performance in the learning activities that is categorized as “very good”. Besides, it is also shown that the students are more actively involved in the teaching-learning process. It means that one of the criteria of success has been achieved, in which the technique can improve the students’ enthusiasms in the earning of reading comprehension. In addition, the teacher also acquires on improvement. The analysis on the implementation implies that the teacher’s performance in carrying out the semantic mapping technique is “very good” in which he can implement it in other classes.

### 3. The Evaluation Stage

The evaluation was done on the process and result of the teaching-learning of reading comprehension using the semantic mapping technique. The process evaluation contains the evaluation on the activities done by the students in each phase.

Based on the data above the activity in evaluation stage, both observers categorized that the activity in evaluation stage in pre-reading stage categorized as good (most of students do the activity) and two activity in whilst-and post-reading activity categorized as “fair” (half of the students do the activity). it means that the activity in this cycle has significance result than the previous activity. it can be illustrated as follows:

**The diagram 6.** *The Evaluation Stage each phase in Teaching-Learning Process*



In addition, to the improvement on the students’ performance in using the technique, the result of the formative test administered in the third cycle also implied that there is a progress in the students’ comprehension.

The test result shows that the students’ mean score is significantly increased in cycle 3. Compared with the previous cycle, the students’ mean score is improved from 78.67 to 81.43 in cycle 2.

Similarly to cycle 2, there are 21 students out of 29 who can improve their comprehension. The rest of them (7 students: CS, UR, SA, SE, AU, IA, HN) has their score decreased since they do not have much schemata/prior knowledge on the topic discussed. Therefore, the target of this study is achieved in terms of the students’ improvement in general. Concerning the analysis of the reflection, and the findings on the planning, implementation, and the evaluation stage in cycle 3, it is concluded that the students have reached a significant improvement in their reading comprehension and it has significant reached the target set up.

### D. Findings

Having conducted three cycles of implementing the semantic mapping technique, some evidences were found in relation to the students’ improvement in reading comprehension skills. This

part discusses the ultimate findings of the study covering that in the planning stage, in the implementation stage, and in the evaluation stage.

### **1. The Planning Stage**

In the planning stage of the study, the lesson plan must be designed based on the following consideration. First, it contains the specific instructional objectives in which state the students' competence. Besides, the objectives are state clearly with optional words as well asset them from the easy to the difficult ones and from the simple to the complex ones. Secondly, on instructional material is prepared based on the theme stated in curriculum, the students' interest, and the students' level. Next, component the teaching-learning activities are students-centered and in line with the instructional material. It is also stated sequentially with time allotment for each phase and may reflect the use of the semantic mapping technique. The next, instructional media is prepared under the following consideration such as interesting to the students, varied, and in line with theme in order to support the teaching-learning activities.

Finally, the evaluation for the teaching-learning has to be in line with the specific instructional objectives and the instructional material. Moreover, it is stated clearly in order to measure the student's competence. There fore, the lesson plan of the teaching-learning of reading comprehension using the semantic mapping technique could be improved from 91.7% in cycle 1, 96.6% in cycle 2, to 98.3% in cycle 3.

### **2. The Implementation Stage**

Regarding the planning has been mentioned, a finding is also revealed that the teacher's performance in implementing the technique has achieved 83.50%, 89,1%, and 98.30%, as it was in the category of very good, the implementation is elaborated as follows.

In the pre- reading phase, there were some activities to be conducted. First, the teacher explains the objectives of the lesson to the students. It is in order to focus the teaching-learning activities and prepare the students with the lesson. Second, the teacher stimulates the student's prior knowledge by carrying out brainstorming activities such as making use of the instructional media and asking some questions related to the topic and the content of the text. Third, the teacher records the information gained in the form of a semantic map as a model for the students to make their own version based on the text. The last activity in this phase is grouping the students. The grouping is done randomly and there is no permanent group since the students are expected to learn how to build a good relationship with all of their friends in the class.

In the whilst-reading phase, after handing out the worksheets, teacher does the following activities. First, he or she explains the instructions in the worksheet. Sometimes, he or she used "*Bahasa Indonesia*" see that the students understand what they have to do with the tasks. Second, the teacher assists or guides the students in finding the Indonesia equivalent of unfamiliar words in the text. To save time, the teacher allows them use the dictionary. Third, the teacher also helps them in finding the main and supporting ideas, especially when the main ideas to all groups. Fourth, the teacher monitors the groups' discussion for sometime there are some students who do not stay on task. Finally, the teacher also guides the students in making the semantic mapping of their own version.

In the post-reading phase, first, the teacher asks the groups one by one to mention the main and supporting ideas of each paragraph of the text. Second, the teacher asks the students to record the information in a semantic map on the blackboard. They also confirm the students whether all information is already included in the semantic map. Third, the teacher elaborates the content of the text and verified that the students have understood it. Finally, after asking the students to get back to their own seats and prepare everything for the test, the teacher gives a formative test to the students to measure their comprehension of the text discussed.

### 3. The Evaluation Stage

In this stage, the finding also revealed that the evaluation of teaching reading comprehension in the pre-reading activity in cycle 1, 2, and cycle 3 is 2 (fair), 2.9 (fair), and 3 (good); in the whilst- reading activity of cycle 1, 2, and cycle 3 is 2.4 (fair), 2.6 (fair) to 2.8 (fair); and post-reading activity of cycle 1, 2, and cycle 3 is 2.2 (fair), 2.5 (fair), and 2.7 (fair). Based on the data above, showed the improvement in each phase or in other word, it is found the technique could improve the students' reading comprehension skills. The result also supported by the students' mean score in reading comprehension improved from 67.54 to 81.43. Another evidence shows that the number of the students who achieves the improvement on the score increased from 19 to 22 students.

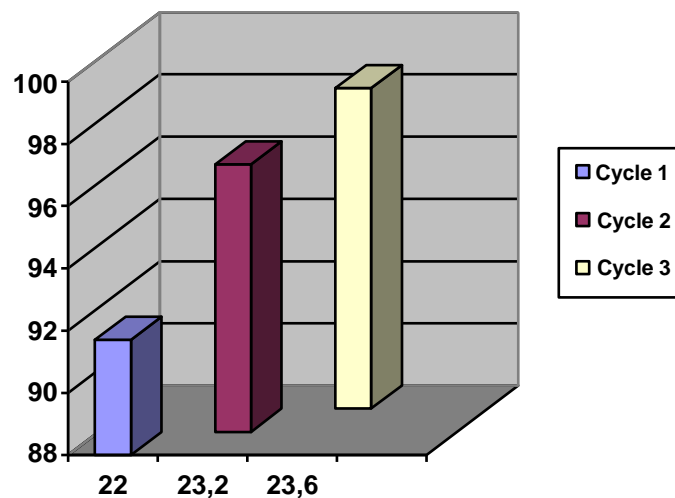
Based on the data presented above, the findings show that the students' reading comprehension can be improved by using the semantic mapping technique.

## DISCUSSION

The discussing was focused on using the semantic mapping technique in the teaching learning of reading comprehension at MA Bilingual Krian-Sidoarjo. Related to the problems of the study, the discussion covers (1) the planning, (2) the implementation, (3) the evaluation of using the technique.

### A. The Planning Stage of the Semantic Mapping Technique.

**Diagram 7.** *The Design of Lesson Plan in Teaching-Learning Process using Semantic Mapping Technique*



Based on data above, the findings of this study showed that the use of the semantic mapping technique required of good planning refers to decisions that are made about organizing, implementing and evaluation a lesson. According to Burden and Byrd (1999: 19), planning helps create, arrange, and organize instructional events to enable learning flow and sequence of instructional events. They state that the plans typically have the following information: identifying course information, objectives of the lesson, procedure, materials, and evaluation (Burden and Byrd, 1999: 65). The teacher however, may want to add some categories of information of modify these components in some way. In this study, the lesson plan of using the semantic mapping technique in the teaching-learning of reading

comprehension consisted of the following components: (1) lesson plan identity, (2) learning outcomes (3) specific instructional objectives, (4) instructional material, (5) instructional media, (6) teaching-learning activities and (7) evaluation.

Among those seven components three of them are founds to be most essential in the planning of the study, namely the instructional materials, instructional media, and teaching-learning activities, while the other components remain the same in the three cycles. The three components have to be modified in order to enhance the success of the study.

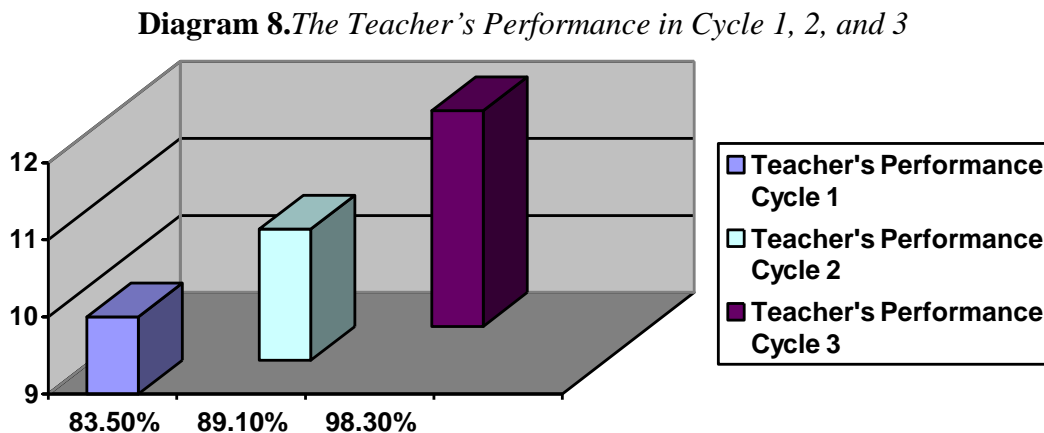
*The first component is the instructional materials.*

*The second component is the teaching-learning activities.* In short, the teaching-learning activities are planned in proportion as it is stated by Brown (2001:153) that timing is an element that a teacher build into a lesson plan.

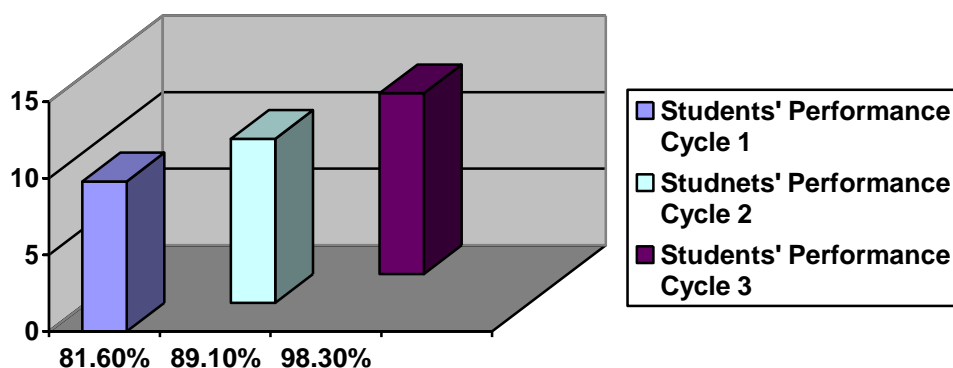
*The last component to be considered is the instructional media.* It is supported by Burden and Byrd (1999:137) who assert that instructional media setup instructional functions and education in which the teachers select to help achieve very specific instructional objectives.

### B. The Implementation Stage of the Semantic Mapping Technique.

This sub-chapter discusses the implementation of the semantic mapping technique in the pre-, the whilst-, and the post-reading phase. It described on the below diagram:



**Diagram 5.2.***The Students' Performance in Cycle 1, 2, and 3*



The improvement of implementation stage in each phase of pre-, whilst-, and post- reading activity was illustrated below:

### 1. The Pre-Reading Phase.

The activities in the pre-reading phase are mainly focused on stimulating the students' prior knowledge. Prior knowledge is the structure of the readers' knowledge of the world which forms their understanding of a concept (Aderson, 1985: 377). It is one of the essential factors in comprehension and should be stimulated before the students start reading.

In the pre-reading phase, first of all the teacher provided the students with some questions and media that lead them to the topic of the lessons. This activity is done to activate their prior knowledge and to focus their attention to the topic is discussed. It is in line with Moore et al (1991:23) who state that questions are used in the pre-reading phase in order to stimulate curiosity, aid students in activating prior knowledge and anticipating information, and focus attention on important information at the time, it turns out that the use of media can draw the students' attention for they spontaneously comment on the media as it is shown. Second, the teacher asks the students to brainstorm on the topic. The teacher gives a few minutes to the students to say anything they know about the topic. As the students share their information about the topic, the teacher jots down the information on the blackboard. This brainstorming activity helps the students construct what they know about the topic and prepare them learn new material. This is supported by Buehl (2001:31) who states that brainstorming strategies provide a useful framework for eliciting students' prior knowledge before learning. It is believed that by brainstorming students begin the study with familiarity of the topic. The students with little background knowledge build their information through class discussion before encountering the topic.

Next, the teacher asked the students to classify the information into some clusters and recorded all information in a form of a semantic map. The purpose of making a semantic mapping in the pre-reading phase is to help the students focus their attention on the topic and provide them a brief description of what they are going to discuss or read. Smith and Johnson (1980:309), Moore et al (1991:52), Zaid(1995:9), and Cooper (2000:249)state that semantic mapping can be used to activate and develop students' prior knowledge to focus students' attention on the main idea, and to help teachers in assessing the students' readiness to do the assignment.

Finally, the teacher grouped the students randomly into seven groups consisting of four to five students. The aim of grouping the students is not only to maximize the students' participation in the learning activities and to make it easier for the teacher to control the students but also to create an atmosphere of a learning community in which students can support and learn from one another. Richards and Lockhart (1994:153) support that group work contributes some benefits such as (1) Reducing the dominance of the teacher, (2) Increasing the amount of the students participation in class, (3) Promoting collaboration among students,(4) Enabling the teacher to work more as a facilitator and



consultant, and (5) Giving students a more active role and learning. The grouping is done randomly and there is no permanent group since the students are expected to learning how to build a good relationship with all of their friends in the class.

## **2. The Whilst-Reading Phase.**

There were several pivotal points related to the use of semantic mapping in the whilst.-reading phase. First, the students need to define or look for the Indonesia equivalent of some unfamiliar words in the text. The purpose of this task is equip the students with some words related to the topic in order to make it easier for them to comprehend the text. Moore et al (1991:37) affirm that the teacher should introduce the essential vocabulary items that students need to activate the appropriate schemata and enhance their comprehension of the text.

Second, the students are required to find the main and supporting ideas of each paragraph in the text before they created a semantic map of their own version. This is done to help the students in understanding the text and in making the semantic map. It is in line with Clarke and Silberstain (1987:239)

Next, after finding out all main and supporting ideas of each paragraph in the text, the students are asked to create a semantic map of their own. By creating a semantic map, the students are able to see the relationships between the information in the text that help them in building their comprehension. Beside, it is an effective way to record all information they obtains from the text. In line with this, Zaid (1995:5)

## **3. The Post-Reading Phase.**

In the post-reading phase, there are also some principal activities that have been done. It is supported by Richard and Lockhart (1994:185) who state that questions enable the teacher to check students' understanding and encourage the students' participation in a lesson.

Second, the students record the information in the form a semantic mapping on the blackboard. According to Moore et al (1991:53), the use of semantic mapping in this phase aims at reviewing the mayor ideas and their relationship in a lesson Zaid (1995:9) supports that it can be employed to asses learning as well as to allow students to synthesize what they have studied. Moreover, Cooper (2000:249) adds that using semantic mapping in the post-reading activity will help students integrate students' new knowledge into their prior knowledge. Consequently, in the post-reading phase the semantic mapping technique is effective in helping the students build their comprehension.

After the final semantic map is made, the teacher elaborates on the content of the text. Sometimes, the teacher gives some questions and make use of the media to check whether the students understanding of the text. Finally, the teacher administers a formative test. Hood et al (1996:102) affirm that formative tests are administered to find out, as the course progresses, how students are managing particular tasks and to monitor their learning.

## **C. The Evaluation of the Semantic Mapping Technique.**

The evaluation enables both the teacher and learner to evaluate the extent to which the goals of an activity or lesson have been successfully accomplished. The evaluation of the semantic mapping technique in the teaching-learning of reading comprehension is done on the process and on the result. The evaluation on the process is carried out based on the obtained data from the observation guidelines. Through the observation, the teacher can measure the students' achievement in using the technique in each phase of the reading activity.

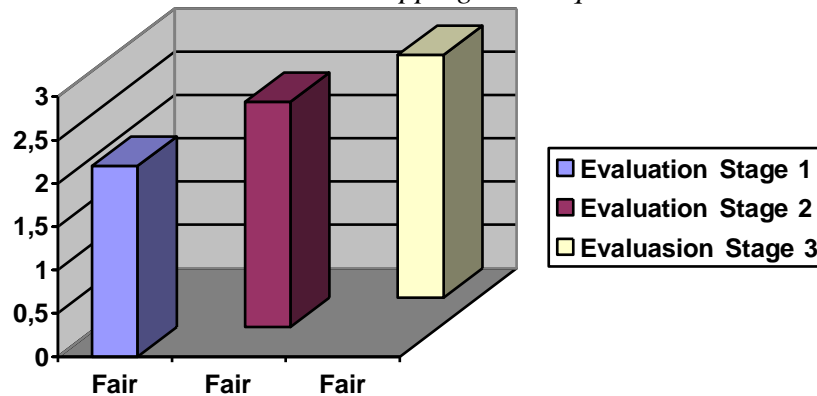
In the pre- reading phase, it is shown that the students' activity in stimulating their prior knowledge is improved.

In the whilst-reading phase, the students' activity is focused on discussing the reading text. Unfortunately, the students' performance is still 'fair' in making the semantic map in class. It is still difficult for some students to state the main and supporting ideas and they need more time to do it. Thus, they are unable to finish their semantic map in class.

In the post-reading phase, the students' activity is focused on checking their comprehension.

To sum up, despite of some activities which are not achieved yet, it can be said that in general the students are able to use the semantic mapping technique in improving their reading comprehension. It can be illustrated as diagram below:

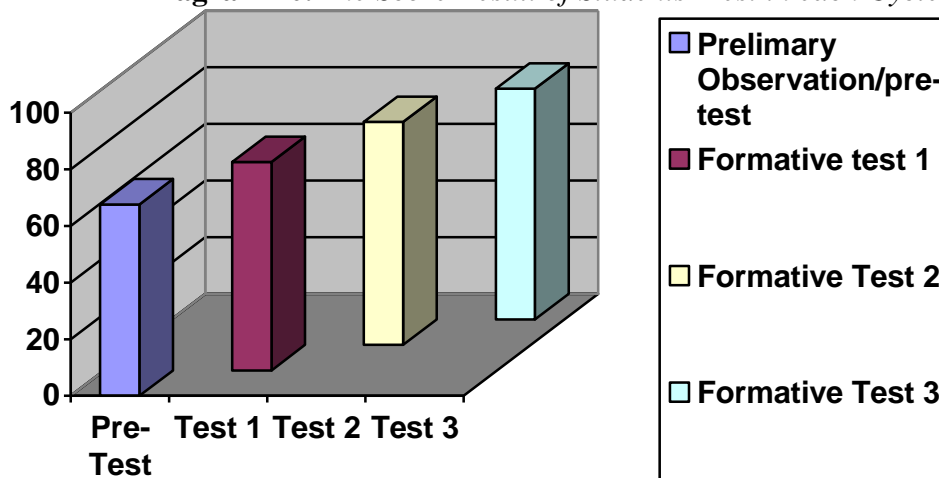
**Diagram 9.** *Evaluation on the Process of Teaching-Learning Reading Comprehension Using Semantic Mapping Technique*



In addition to the evaluation on the process, an evaluation on the result is also employed in order to measure the students' ability in comprehending a reading text. Therefore, a formative test is administered at the end of each cycle. It is in line with Richard's and Lockhart's statement (1994:166) that tests of different kinds are common examples of evaluation activities. Hood et al (1996:102) support that formative test is administered to find out, as the courses progress, how students are managing particular tasks and to monitor their learning.

Based on the result of the formative tests, it turns out that there is an improvement on the students' reading comprehension after the semantic mapping technique is implemented. This is indicated by the increase of the students' mean score from 67.54 to 81.43. The improvement on the students' reading comprehension is discussed more specifically below:

**Diagram 10.** *The Score Result of Students' Test in each Cycles*



In comparison to the students' reading comprehension prior to the implementation of the action, the data shows that the students are having an improvement on reading comprehension. It is

proved by the increase of the students' mean score from 67.54 in the preliminary study to 73.25 in cycle 1, 78.67 in cycle 2, and 81.43 in cycle 3.

In general, it can be said that the technique is advantageous for the students. More specifically, it is very helpful for the students. It is proved by their mean score that gradually increased in each cycle. To sum up, it can be said that the students' reading comprehension improve because of the implementation of the semantic mapping technique in the teaching-learning of reading comprehension.

## CONCLUSIONS

On the basis of the research findings and discussion elaborated, some conclusions are drawn related to the use of the semantic mapping technique in the teaching-learning of reading comprehension in (1) The planning stage, (2) The implementation stage, and (3) The evaluation stage. They are presented as follows.

First, the most essentials components in planning the teaching-learning of reading comprehension by using the semantic mapping technique are the instructional materials, the instructional media, and the teaching-learning activities. They are designed by considering the curriculum, the students' need and interest as well as the process of the teaching-learning of reading comprehension. Second, the semantic mapping technique is an effective way in the pre-reading phase since it can stimulate the students' prior knowledge (schemata). By creating a semantic map based on the students' schemata, the students are prepared with the topic to be read or discussed. Third, using the semantic mapping technique in the whilst-reading phase helps the students to record the information obtained from the text. By making a semantic map while reading a text, the student's are equipped with a technique to relate their prior knowledge with the new information. Fourth, using the semantic mapping technique in the post-reading phase provides the students with an overall description about the text and helps the teacher assess the students' comprehension of the text. Fifth, the evaluation on the process of the teaching-learning of reading comprehension by using the semantic mapping technique helps the teacher monitor the students' difficulties and achievement in comprehension the text. Meanwhile, formative tests help the teacher evaluate the result of the technique used and measure the students' achievement in reading comprehension.

Finally, the semantic mapping technique is effective in improving the students' reading comprehension. The achievement on the students' mean score proves that the technique is advantageous for the students.

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