A. Method of Research

The method used in this research is an action research. There are various definitions of action research stated by some experts. Kemmisas quoted by Hopkins (2006: 44) gives the definition of action research as follows:

Action research is a form of self-reflective inquiry undertaken by participators in a social situation (including education) in order to improve the rationality and justice of (a) their own social or educational practice, (b) their understanding of these practices and (c) the situation in which practices are carried out.

Mills (2000: 6) states that action research is any systematic inquiry conducted by teacher researchers, principals, school counselors, or other stakeholders in teaching-learning environment to gather information about the ways how their particular schools operate, how they teach, and how well their students learn. Moreover, Nunan (1998: 18) argues that action research has distinctive feature that is those affected by planned changes have the primary responsibility for deciding on courses of critically informed action which seem likely to lead to improvement, for evaluating the results of strategies tried out in practice. Ebbutas quoted by Hopkins (1993: 45) states that action research is about the systematic study of attempts to improve educational practice by group or participants and by means of own reflection upon the effects of these actions.
Based on several definitions stated by some experts, the writer concludes that action research is any systematic inquiry undertaken by participants in a social situation understanding and improvement of practices where those practices are carried out.

B. Place and Time of Research

This research investigates at the second grade of MTS Asy-Syafi’iyah Karangasem Margasari Tegalin academic year 2014-2015. The schedule of the research can be seen in the following table.

<table>
<thead>
<tr>
<th>NO</th>
<th>Activities</th>
<th>September</th>
<th>October</th>
<th>November</th>
<th>December</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Making proposal</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
</tr>
<tr>
<td>2</td>
<td>Making instrument</td>
<td>*</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>3</td>
<td>Pre-test</td>
<td></td>
<td>*</td>
<td></td>
<td></td>
</tr>
<tr>
<td>4</td>
<td>Cycle 1</td>
<td></td>
<td></td>
<td>*</td>
<td>*</td>
</tr>
<tr>
<td></td>
<td>a. First action</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>b. Second action</td>
<td></td>
<td>*</td>
<td></td>
<td></td>
</tr>
<tr>
<td>5</td>
<td>Post-test cycle 1</td>
<td></td>
<td></td>
<td>*</td>
<td></td>
</tr>
<tr>
<td>6</td>
<td>Cycle 2</td>
<td></td>
<td></td>
<td>*</td>
<td>*</td>
</tr>
<tr>
<td></td>
<td>a. First action</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>b. Second action</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>7</td>
<td>Post-test cycle 2</td>
<td></td>
<td></td>
<td></td>
<td>*</td>
</tr>
<tr>
<td>8</td>
<td>Making report</td>
<td></td>
<td></td>
<td></td>
<td>*</td>
</tr>
</tbody>
</table>

C. Subject of the Research

In this research the writer takes the second grade of MTS Asy-Syafi’iyah Karangasem Margasari Tegalin academic year 2014-2015 as subject of the research, because this class has a problem in a reading text
comprehension. They need treatment to increase their ability. The number of students were 27 consisting of 9 boys and 18 girls.

D. Research Design

The writer follows Kemmis and Mc Taggart in Wiriaatmadja (2006:66) Classroom Action Research design. That design consists of several cycles, in which each cycle cover the planning, acting, observing, and reflecting of the teaching learning process based on the lesson plan that is prepared for one meeting.

The result of evaluating is used to be the main basic to the next planning in CAR. It means that if the cycle will be implemented, there should be a reflection process and re-planning or revised the plan process. Then, the re-planning result should be done in a new cycle format. One cycle is followed by other cycles until there are changes as goals. This research will be done in collaboration. It is supported by Kemmis and Mc Taggart as quoted by Burn (1999:32). They explains that action research occurs through dynamic and complementary process which consists of four essential moments such as ; planning, acting, observing, and reflecting.

We can see the Kemmis and Mc Taggart action research model visually as follows:
The steps that the writer does in improving students’ reading comprehension using semantic mapping in second grade of MTS Asy’SyafiiyahKarangasemMargasariTegal begins with determining the problem base on the interview with English teacher and follows by the planning, acting, observing and reflecting.

The steps are described as follows:

1. Planning

The writer and the teacher work together to make some plans in solving the problem. In planning some actions to solve the problem, the writer makes the plan in the cycle based on the problems that is faced by the students in reading ability. The writer exposes the plans for research as follows:

![Kemmis and Mc. Taggart action research model](image-url)
a. Arranging some actions based on the pre-test and observation
b. Choosing a technique that is semantic mapping to give motivation
c. Preparing the lesson plan that will be taught to the students about reading comprehension using semantic mapping
d. Arranging and evaluating that will be used to measure students’ reading comprehension using semantic mapping. It will be done by post test

2. Acting

After the writer makes the lesson plan that is agreed by the teacher as a collaborator. The writer does teaching and learning process to improve students’ reading comprehension using semantic mapping. In acting there are two cycles. There are two actions in one cycle.

3. Observing

In this step the writer does the observation towards implementation of action using check list and field note. The writer observes the outcomes of the intervention and reflection on its effectiveness.

4. Reflecting

The aim of this step is between the writer and the English teacher study about the outcomes of intervention. If the result does not show the progressiveness, we can revise the beginning plan. We do the reflection to identify and to explain the difficulty or the problem that is faced, and to know the whole process.
E. Technique for Collecting Data

Technique for collecting data aim to support the success of the research. In this case, the writer will use the appropriate technique so that the result of research is good. It helps the writer to get the data and the information about the process of improving students’ reading comprehension using semantic mapping. The main technique for collecting data is a test, and the supporting techniques are observation, interview, documentation, and field note.

1. Test

In this research, the researcher uses a main data collection that is a test. The assessment of students’ reading comprehension uses:

a. Pre test

It is given to the students in order that the writer knows the students’ reading comprehension.

b. Post test

It is given to the students in order that the writer knows their reading comprehension after giving the treatment.

Arikunto (1998:139) said that is sequence or question or exercise which is used to measure skill, knowledge, intelligence, and ability of individual or group. The writer uses test for pre and the post test of CAR. The post test is conducted when one cycle has been finished. Pre and Post-test are used to know students’ reading comprehension using semantic mapping.
After conducting the pre or Post-test the researcher scores the students’ result. The types of the question were:

1) Multiple choices. There were 30 questions. The scoring system for the activity was:

Every correct answer : 1  
Score total for activity : $1 \times 30 = 30$

The researcher concluded that the score total for activity one was:

$$\text{Students’ score total} = \frac{\text{Students’ score}}{\text{Score maximal}} \times 10$$

$$= \frac{30}{30} \times 10$$

$$= 10$$

2. Observation

Observation is used as a supporting technique for collecting data. It has a function to know the real description in the teaching learning process using semantic mapping. Through this observation the writer knows the students’ response before and after using this technique. Researcher uses observation method in this research because she wants to know the second grade of VIII B students’ reading comprehension in MTS Asy-Syafi’iyah Karangasem Margasari Tegal. There are two kinds of observation i.e. participatory and non-participatory observation (Moleong, 2004:126). The writer uses observation sheet to collect the data. There are two kinds of observation sheet or check list. There are observation sheet for the students’ reading comprehension using
semantic mapping and then for the teachers’ activities during the English teaching learning process. The items of students and teacher observation list are as follows:

### Table 2
The Students’ Observation List

<table>
<thead>
<tr>
<th>NO</th>
<th>Activities</th>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Asking Question</td>
<td></td>
<td>*</td>
<td></td>
<td></td>
</tr>
<tr>
<td>2</td>
<td>Answering Question</td>
<td></td>
<td></td>
<td>*</td>
<td></td>
</tr>
<tr>
<td>3</td>
<td>Giving Opinion</td>
<td></td>
<td></td>
<td></td>
<td>*</td>
</tr>
<tr>
<td>4</td>
<td>Initiating In Doing Task</td>
<td></td>
<td></td>
<td></td>
<td>*</td>
</tr>
</tbody>
</table>

### Table 3
The Teacher’s Observation List

<table>
<thead>
<tr>
<th>NO</th>
<th>TEACHER ACTIVITIES</th>
<th>SCORE</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>1 2 3 4</td>
</tr>
<tr>
<td>1</td>
<td>Pre Teaching</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Preparing the material systematically</td>
<td>*</td>
</tr>
<tr>
<td>2</td>
<td>Preparing the media</td>
<td>*</td>
</tr>
<tr>
<td>3</td>
<td>Giving apperception</td>
<td>*</td>
</tr>
<tr>
<td>4</td>
<td>Giving the aims of the learning</td>
<td>*</td>
</tr>
<tr>
<td>5</td>
<td>Whilst teaching</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Conditioning the students into groups</td>
<td>*</td>
</tr>
<tr>
<td>6</td>
<td>Giving motivation and encouragement</td>
<td>*</td>
</tr>
<tr>
<td>7</td>
<td>Giving the description about the material</td>
<td></td>
</tr>
<tr>
<td></td>
<td>that will be learned</td>
<td>*</td>
</tr>
<tr>
<td>8</td>
<td>Guiding the students in the discussion in</td>
<td></td>
</tr>
<tr>
<td></td>
<td>their semantic group</td>
<td>*</td>
</tr>
<tr>
<td>9</td>
<td>Giving opportunity to ask question and give</td>
<td></td>
</tr>
<tr>
<td></td>
<td>opinion</td>
<td>*</td>
</tr>
<tr>
<td>10</td>
<td>Post-teaching</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Reviewing the materials and giving evaluation</td>
<td>*</td>
</tr>
</tbody>
</table>

3. Interview

Arikunto (1998:45) said an interview is a communication process and interaction that happens interviewer. The quality of interview is determined by their condition. It can run well when the interviewer is
willingly giving information that we need. The writer uses the general interview guide to make the interview process run smoothly.

According to Hop Kins in Wiriaatmadja (2010: 117) defined that interview is a way the situation in the classroom which is shown from other point of view. The purposes of interviewing are to find out what is in or on someone else mind or to involve eliciting something from informant. For the action research, the interviewer especially in its less structure form will seem to have more potential and it is most unstructured. The interview is like a professional conversation and therefore quite complementary to normal professional behavior.

In this case, the writer uses semi-structured interview in doing interview with the English teacher of VIII B. There is some goodness or advantages in using semi structured interview; the first is it could give interviewer or respondent more change to determine the process of this interview. Second, the writer as an interviewer can be more flexible to extend or to make the topic specify. And then the third, that the format of semi structured interview has an opportunity to be more interacted with the interviewer. The purpose of doing the interview is that the researcher wants to get the data or information relate to the students’ reading comprehension and also the problem that is faced by the teacher to teach reading comprehension. The form of interview was spoken both teacher and researcher. The Questions relatively are about students’ ability and students’ error in comprehending reading text. The questions may be developed based on the teachers’ answer.
4. Document

Arikunto (1998:236) defined the documentary method is document in the form of score before or after the action. Document can provide information which is relevant to the issues and problems under investigation. In the context of CAR, the relevant documents are syllabus and students score.

The document which will be used in this research is the document of score evaluation and examination sheet of VIII B of MTS Asy-Syafi’iyah Karangasem Margasari Tegalas a proof. The other documents are the photograph document of teaching learning process.

5. Field notes

Field notes are used to record all events during CAR. Field note is a tool to collect data of teaching learning process. The field note contains:

a. The action of group work
b. The performance of an individual students
c. Interesting and common errors made by students
d. Problematic issues
e. Ideas, inspiration, things that work well
f. Specific events

6. Questionnaire

According to Sudijono (1996:84) questioner is used by the evaluator to know the result of teaching learning process. It is simpler and does not need many times to do.
F. Technique of Data Analysis

The researcher has two methods to analyze the data, there are:

1. Qualitative Data

In this research, the process of analyzing the qualitative uses three components. They are reduction data, presenting the data (it can be percentage of data) and conclusion or verification. It is also supported by Burn that in analyzing the qualitative data, there are three actions, those are the process of reducing data, presenting the data and conclusion (Burn, 1999:179). The qualitative data is taken from interview, documentation, field notes, and check list of observation.

Miles and Huberman in Burn (1999:179) called the data analysis in mention research as analysis episodes which a dynamic process. To make clear, the following scheme showed the activities of the process sequences.

![Diagram of Process of analyzing the qualitative data](image)

*Figure 4: Process of analyzing the qualitative data*

The schema above explains the raw data collect at the beginning of the cycle are synthesized and summarized in order to suggest further episodes of the data collection and analysis. In turn, these data add to the
assembling of information that permits ideas to be formulated and further action to be taken. Further action means that initial data analysis and conclusion can be drawn.

2. **The Quantitative Data**

   The researcher also uses the quantitative data to support the research result, especially for students’ result of the test. The quantitative data is the data consisting of numbers, either the number that is taken from collaboration or measurement.

   a. **Class Percentage**

      To know the class percentage, the writer will use formula as follows:

      \[ P = \frac{F}{N} \times 100\% \]

      Where:

      - \( P \) = The Class percentage
      - \( F \) = Total percentage of score in each student
      - \( N \) = Total number of item

      The researcher also uses mean score to measure how good the improvement of average students score in learning reading by using semantic mapping. The formula is as follows:

      \[ X = \frac{\sum x}{N} \]

      Where:

      - \( x \) = Mean
      - \( \sum x \) = Individual score
      - \( N \) = Number of students

Nurgiyantoro (2001:361)
b. Questionnaire

According to Sudijono (1996:84) questioner is used by the evaluator to know the result of teaching learning process. It is simpler and does not need many times to do. While Arikunto said (1998:229) that questionnaire is a number of written questions which are used to gain information from respondents about their knowledge, belief, and etc.

To measure the students’ response, the writer used formula as follows:

\[ \% = \frac{n}{N} \times 100 \]

Where:  
- \( n \) = number of students who answer Y/N
- \( N \) = Number all of students

Ali (1987:184)

G. Indicator of the Action Success

According to Sumarno in Sadikin (2007:141) in the evaluation, criteria or indicator has functioned as standard of comparison to determine the level of the action success based on the considerations that has been agreed by the teacher and the researcher.

In this research the researcher and the collaborator teacher determine indicator of the action success. The action success was based on the test result. The post test result reaches 6.60, because the standard score in MTS Asy-Syafi’iyahKarangasemMargasariTegalis 6.50. In the post test in cycle 2 showed the mean 8.25.