A. Research Design

In this research, the method used was Classroom Action Research. Action research refers to teacher-conducted classroom research that seeks to clarify and resolve practical teaching issues and problems. The term “action research” refers to two dimensions of this kind of activity: The word research in “action research” refers to a systematic approach to carrying out investigations and collecting information that is designed to illuminate an issue or problem and to improve classroom practice. The word action refers to taking practical action to resolve classroom problems. So, the term Classroom Action Research is a research aimed to solve a problem that is faced by students in the class by applying a learning method, strategy or technique systematically.

In this research, the researcher used Classroom Action Research to analyze and solve the factual problem of learning English that happened in the class. Researcher conducted classroom action research in two cycles. In every cycle, there were four steps have been implemented. Arikunto (2006:16) cited by Suyadi, tells that generally there are four steps in

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action research, they are planning, acting, observing, and reflecting. It can be seen as follows:\(^{41}\):

![Diagram of Action Research Cycle]

**B. Research Time and Setting**

This research was conducted at the Eighth grade of MTs Manabi’ul Falah, Pati which is located on Ronggo Kusumo street, Ngemplak Kidul Margoyoso Pati. It was started from January 16\(^{th}\), 2016 until February 1\(^{st}\), 2016. The detail of research schedule as follow:

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\(^{41}\) Suyadi, *Panduan Penelitian Tindakan Kelas*, (Jogjakarta : Diva Press, 2010), p.50
<table>
<thead>
<tr>
<th>No.</th>
<th>Activity</th>
<th>Jan 16</th>
<th>Jan 18</th>
<th>Jan 25</th>
<th>Feb 1</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.</td>
<td>Asking for permission to headmaster</td>
<td>√</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>2.</td>
<td>Going to meet the English teacher and discuss about the class would be subject of research</td>
<td>√</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>3.</td>
<td>Doing Pre – Cycle</td>
<td>√</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>4.</td>
<td>Doing Cycle I (teaching simple past tense and regular verb)</td>
<td></td>
<td></td>
<td>√</td>
<td></td>
</tr>
<tr>
<td>5.</td>
<td>Doing Cycle II (reviewing the previous material and teaching the irregular verb)</td>
<td></td>
<td></td>
<td></td>
<td>√</td>
</tr>
</tbody>
</table>

**Table 3.1**

C. Subject and Collaborator of Study

The subject of this research was students at the eighth grade of MTs Manabi’ul Falah Pati in the even semester of academic year 2015 / 2016. They were students at the class
VIII B that consist of 16 male students. In the class, the researcher was helped a collaborator to observe the students’ activities during teaching and learning process.

Collaborator of research is person who helped the researcher to collect the data during research. In this research, the collaborator was the English teacher at the Eighth grade of MTs Manabi’ul Falah Pati. He was Mr. Yuswanto.

D. Research Procedure

In this classroom action research, the researcher made some plans to implement the research in two cycles. Each cycle consists of four steps. They were planning, acting, observing and reflecting. Before researcher doing cycle I, she conducted pre cycle. The detail activities in pre cycle, cycle I and cycle II as follow.

1. Based Line Data

The first step in classroom action research was conducting preliminary observation to know the initial condition of students’ mastery on simple past tense. It was conducted on Monday, January 18th, 2016. In this activity, researcher taught students using conventional method. In addition, the researcher also gave test for students to know the students’ mastery on simple past tense and what the problems faced by them in learning English tense before using Numbered Heads Together.
After the researcher got the data from observation and test, she and English teacher decided to analyze it and designing a plan for the next cycle.

2. **Cycle I**

Cycle I was conducted on Monday, January 25\textsuperscript{th}, 2016. In this cycle, the researcher taught simple past tense to students using Numbered Heads Together. For the detail activities in four steps, as follow:

a. **Planning**

In this step, the researcher prepared some matters related to the activities would be done in the class. They were arranging lesson plan based on the syllabus, making some numbered cards as a learning media, arranging instrument of test for students and table of observation to observe the students during in the class.

b. **Acting**

In this step, researcher applied the plan. The researcher explained the material to students based on the lesson plan. In addition, researcher also implemented Numbered Heads Together strategy. The detail of activities in this step as follow:
<table>
<thead>
<tr>
<th>Learning Activity</th>
</tr>
</thead>
<tbody>
<tr>
<td>• Starting the lesson by greet and pray</td>
</tr>
<tr>
<td>• Explaining the learning goal</td>
</tr>
<tr>
<td>• Explaining the learning material (related to Simple Past Tense)</td>
</tr>
<tr>
<td>• Giving some cards (cards numbered 1-4) for students in a group. The card for each student in a group is different.</td>
</tr>
<tr>
<td>• Giving some questions for them to discuss and share their ideas in a group.</td>
</tr>
<tr>
<td>• Call one of the numbers in the groups randomly to present their answer</td>
</tr>
<tr>
<td>• Reviewing the answer together</td>
</tr>
<tr>
<td>• Distributing a worksheet as an individual test for students</td>
</tr>
</tbody>
</table>

c. Observing

During the researcher conducted the activities in the classroom, the English teacher observed all the activities using table of observation that has been prepared by researcher. The table of observation was about students’ activeness during teaching and learning process in the class.
d. Reflecting

In this step, the researcher and English teacher discussed the result of acting and observing steps during teaching and learning process in the class. This step was aimed to find out the improvement of students’ mastery on simple past tense, the weakness of teaching and learning process in the cycle I and the way to improve it in the next cycle.

The researcher helped by English teacher analyzed the data of observation and score of test using the formula that has been prepared. The result of observation data and test would be reflection for doing the next cycle.

3. Cycle II

After conducting the cycle I, the researcher held the cycle II to solve the problem found in the cycle I. It was conducted on Monday, February 1<sup>st</sup>, 2016. The activities of cycle II as follow:

a. Planning

Planning step in cycle II was almost same as the cycle I. However, in the planning step of cycle II, the researcher arranged some matters used in teaching
and learning process based on the result of reflecting step in the cycle I.

b. **Acting**

In this step, researcher applied the new lesson plan had been made in the planning step. For the activities in the cycle II was almost same as learning activities in the cycle I. However, in this cycle researcher improved the students’ mastery of simple past tense in the cycle I.

c. **Observing**

In this cycle, researcher used observation table same as in the cycle I. This step ran gather with the acting step, and it also helped by English teacher as a collaborator of research.

d. **Reflecting**

After conducting the teaching and learning process in the class, the researcher and English teacher discussed and analyzed the result of test and observation. They conclude that there is improvement of students’ mastery on simple past tense in this cycle, so the researcher decided to stop research in cycle II.

E. **Technique of Collecting Data**

In this research, the researcher used three instruments of collecting data. They were:
1. Observation

Observation is a technique of collecting data by monitoring the activities. The activities can be the way a teacher doing the teaching, students studying, etc.\textsuperscript{42}

In this study, observation is used to observe the research activities in the class. It is about all the activities in the class during the research. They were students’ activeness in asking and answering the researcher’s questions, students’ attention during the lesson, students’ activeness in the group, and students’ enthusiasm when doing the test.

To collect the data, the researcher used checklist such as below:

<table>
<thead>
<tr>
<th>No.</th>
<th>Criteria</th>
<th>Score</th>
<th>Total Score</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.</td>
<td>Students pay attention to the researcher explanation during the lesson</td>
<td></td>
<td></td>
</tr>
<tr>
<td>2.</td>
<td>Students respond to the researcher questions</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

\textsuperscript{42} Nana Syaodih Sukmadinata, \textit{Metode Penelitian Pendidikan}, (Bandung : PT Remaja Rosdakarya, 2011), p.220
<table>
<thead>
<tr>
<th></th>
<th>Students ask question to the researcher during the lesson</th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>4.</td>
<td>Students show their enthusiasm in the Numbered Heads Together activity</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>5.</td>
<td>Students show their enthusiasm when doing the test.</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Total Score</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

**Table 3.2**

**Note:**

5 = Majority of students (>70%)  
   11 – 16 students  
4 = Many students (50% - 69%)  
   8 – 10 students  
3 = Half of students (20% – 49%)  
   3 – 7 students  
2 = A few students (< 20%)  
   1 – 2 students  
1 = None (0%)  
   0

2. **Test**

In oxford learner’s advanced dictionary, stated that test is an examination of subject’s knowledge or ability,
consisting of question for them to answer or activities for them to perform. The instrument of test contents some of questions that will be measured each point in the questions after students finish answer.

In this study, test is used to know the students’ improvement mastery on simple past tense after using Numbered Heads Together in the class. Before applying Numbered Heads Together as a learning strategy in the class, teacher gave a pre test for students to know the students’ mastery on simple past tense.

F. Technique of Analyzing Data

After collecting the data of research, researcher analyzes the data. The analyzing of the data for each instrument as follow:

1. Observation

After researcher collect the data using the table of observation, then she analyzed it using the percentage of students’ participation in the class per each cycle. The formula to measure the students’ participation is:

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

Explanation:

- \( P \) = Percentage
- \( n \) = the total of score
- \( N \) = the sum of score total
2. Test

The researcher analyzed the result of the test in each cycle. The result of the test measured the students’ improvement on simple past tense mastery. To measure the students’ improvement on test, the researcher using the several formulas, such as below:

a. Measuring the Students’ Individual Ability

In the instrument of the test, there were 10 items multiple choice questions. Then the correct answer calculated using the formula below:

\[
\text{Score} = \frac{\sum \text{right answer}}{\sum \text{items}} \times 100\%
\]

After calculating the students’ score, then the researcher determined the percentage of the score. To calculate it the researcher used the formula such as below:

\[
P = \frac{\sum f}{n} \times 100\%
\]

Explanation:

P : Percentage
f : Frequency of correct answer
n : Total of the Students

After the researcher calculates and knows the percentage of score, then she classify the grade of students’ score using the letters A, B, C, D, or E such as below:
### Table 3.3

<table>
<thead>
<tr>
<th>Percentage</th>
<th>Letter Score</th>
<th>Category</th>
</tr>
</thead>
<tbody>
<tr>
<td>90% - 100%</td>
<td>A</td>
<td>Excellent</td>
</tr>
<tr>
<td>70% - 89%</td>
<td>B</td>
<td>Good</td>
</tr>
<tr>
<td>60% - 69%</td>
<td>C</td>
<td>Fair</td>
</tr>
<tr>
<td>50% - 59%</td>
<td>D</td>
<td>Less</td>
</tr>
<tr>
<td>0% - 49%</td>
<td>E</td>
<td>Poor</td>
</tr>
</tbody>
</table>

#### b. Measuring the Mean of Students’ Score

After the researcher calculated and percentaged the score and also determine the classification of the score, then she calculated the average of students’ score in the class. It aimed to know the students’ achievement on simple past tense mastery. To calculate it, the researcher uses the formula such as below:

\[
\bar{x} = \frac{\sum x}{n}
\]

Explanation:

- \( \bar{x} \) : mean
- \( \sum x \) : the number of students’ score in the class
- \( n \) : the number of students in the class

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43 Nasyiatul Khoiriyah, unpublished thesis under title, “The Use of Ball Tose Game to Improve Students’ Understanding of Simple Past Tense (A Classroom Action Research at the VII C Grade of SMP Futuhiyyah
G. Indicator of Achievement

This research will be said to be success if the research’ objectives are reached. The researcher formulates the research objectives’ indicators as below:

1. Students’ average achievement in mastery simple past tense is equal or higher than minimum score established by the school, that is 70.
2. Students reach the minimum score (70) are equal to or higher than 75% of total students in the class.
3. Students’ average activeness in learning simple past tense are equal or higher than 75% of total students in the class.