III. RESEARCH METHODS

3.1 Setting

This is a classroom action research. In this research, the students’ problem is found based on the interview and observation. It is found that the problem in understanding both receptive and productive language use is resulted from inadequate vocabulary mastery. And based them to the teaching learning process, the main problem of the students was that the students is to active and Unenthusiastic when they are following English class. The students difficult to communicate because of their lack of vocabulary. They felt frustrated when they could not find the appropriate word to express their thought and to grasp the meaning of someone utterances. The problems mostly appeared when they were doing reading test; the students got difficulties in understanding the content of the test, they spent a long time to consult the dictionary to get the meaning of most of the words in the text. It also appeared in speaking, most of the Students were reluctant to speak and frustrated they were asked to tell or express something. So, a classroom action research was done to increase the students' vocabulary mastery, the teacher's and the teaching learning process. The researcher taught vocabulary through crossword puzzle game and saw the improvement from the process and product of teaching and learning. This research was done at the first grade of SMA PGRI 1 Batanghari.

It is done based on the problem faced by the students when they were learning English. The crossword puzzle which was used in her research was related to the
topic. Those topics, such as bird, dog, and cat which were kind of animal that were appropriate with the material that the students logic was related to.

The syllabus for senior high school that the first grade of senior high school had to be able to describe animal, place or person. The subject of this research is the students of class X of SMA PGRI 1 Batanghari which consisted of, 35 students. Most of the students had limited vocabulary. Their vocabulary mastery was relatively low. It was showed from block test, the students' result was below the KKM. Most of them were not able to do receptive and productive test well, it was difficult for them to recall the vocabulary they had got.

In this classroom action research, the researcher acted as the teacher researcher made the lesson plan: in the classroom. The teacher implemented crossword puzzle game in teaching vocabulary. Then, there were two observers who observed the teacher's performance and the students' activity during the teaching learning process occurs.

The solution which was applied was teaching vocabulary through crossword puzzle game. Then the lesson plan was designed and applied in the classroom. The researcher held two for each cycle. After giving the treatments researcher administered an evaluation in order to measure the students' vocabulary mastery.
3.2 Procedure of Action Research

In this classroom action research, there were two cycles. The first cycle was based on the problem faced both by the students and teacher. The main steps of the cycle were as follow:

a. Planning

Based on the problem of the research, the researcher prepared lesson selected the topic that was relevant to the curriculum of senior high school. Researcher created some themes, such as words having to do with tile environment, animals, nouns, verbs or adjectives. The crossword puzzle game presented the material that could he applied for senior high school-, it was about animal as in the syllabus. This cycle covered content consisted of 20 nouns, 11 verbs and 22 adjectives. Additionally, observation sheets the vocabulary test was provided.

b. Action

Action was the part of the cycle where the teacher did: the treatment; it was teaching vocabulary through crossword puzzle game. In this stage, the researcher applied the lesson plan that was prepared previously in the teaching learning process. In the activities, the teacher built up the students' mind to the material that was given by asking some question how. After that the teacher explained the material related to the topic. Then the teacher divided the students into seven groups to compete in doing crossword puzzle game that the teacher handed in. Then the teacher asked the students to categorize the words related to their
vocabulary mastery after doing the crossword puzzle. The observers observed the situation in the classroom and made some necessary notes.

c. Observation and Interpretation

During the teaching learning process, the students' activities were observed by the rater. The teacher’s performance was observed and noted by the observer using observation sheet interpret the result of teaching learning process. This step was done while the teaching learning process occurs.

d. Analysis and Reflection

Reflection meant that the researcher analyzed and reflected teaching learning process based on the observation result, students' performance and the vocabulary task to find out the improvement of students' mastery. The researcher analyzed the weakness and the strength of the activity, material, media and students' mastery. Based on the result of this, reflection he researcher could conclude whether next cycle needed to be done or not.
The cycle of Classroom Action Research (Suyanto in Wiliyanti, 2007:33)
c. Research Indicators

This part consists of the research indicators, such as students' activity, teacher's activity and learning product

3.2.1 Students' Activity

For this learning process, observation was done to both teacher and students by the observer and the rater during the teaching learning process by observing the whole activities in the classroom and by filling the observation form. The observation was done to know the students' activity during the learning process, the subject was based on the problem faced by the teacher, and was divided into three activities, they were pre activity, while activity, and post activity. The indicator determined by the researcher concerning to the students' activity was 80 percent. So, if 80 percent of the students were actively involved teaching and learning activities when the crossword puzzle games was implemented, it meant that the use crossword puzzle game was applicable to improve students' vocabulary achievements. The researcher to set tip 80% as the target since according to Arikunto (2004:4), it more than 75% students were actively involved in teaching learning activities, it could be categorized as a good Level. The researcher discussed it to the other English teachers.

3.2.2 Teacher's Performance

Besides observing the students' activities, the observer also observed the teacher's performance during teaching and learning process. It was expected that the
teacher's score for the teacher performance could reach score 80. So, if the teacher could get score 80 in her teaching performance, it meant that she could teach very well. There were some aspects that were used to score the teacher's performances, such as doing the appreciation, mastering the learning material, having the learning strategy, using the learning media, involving the students and having evaluation.

3.2.3 **Learning Product**

In line with the standard score of KKM (Kriteria Ketuntasan Minimal) stated by SMA PGRI 1 Batanghari for English subject, the indicator of the learning product first grade was 66. So, the researcher and the teacher determined the target according to the standard, if at least 70% of the students’ score could reach 63 or more for the test, it was assumed that crossword puzzle game was able to foster the learning product.

In order to see whether crossword puzzle game could be used to improve the students' vocabulary mastery in the Classroom Action Research, the researcher determined the indicator dealing with the learning process and products.

3.3 **Instruments of the Research**

In getting the data, the researcher employed two instruments. The main source of the information. The second one supported the instruments used here were vocabulary lest and observation Checklist.
The instruments could be specifically as follow:

a. Vocabulary test

The first instrument in getting the data vocabulary test. It was chosen as the instrument because it required the students to measure their vocabulary mastery. Vocabulary test could also motivate the students to improve their English ability. The researcher used the vocabulary test proposed by Heaton(1991). The test assessed the students' understanding and the students' vocabulary by choosing the correct answer related to the topic.

b. Observation Checklist

Observation is conducted during the teaching learning process. The observer observed the process happening in the classroom. All important things those happened during teaching learning process were noted by the observer. There were two aspects which were going to be observed, they were teacher performance and students activities.

a) Teacher's Performance

Besides observing the students' activities, the observer also observed the teacher's performance during teaching and learning process. there were some aspects that were used to score the teacher's such as doing appreciation, mastering learning, having the learning strategy, using We learning media, involving the students and having evaluation of teacher's observation checklist:
Table 1. Teacher’s Observation Checklist.

<table>
<thead>
<tr>
<th>No.</th>
<th>Aspects</th>
<th>Score (by giving a tick)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>1</td>
</tr>
<tr>
<td>1.</td>
<td>Pre-Activities</td>
<td></td>
</tr>
<tr>
<td></td>
<td>• Doing an apperception</td>
<td></td>
</tr>
<tr>
<td></td>
<td>• Informing the competence that will be achieved to the students</td>
<td></td>
</tr>
<tr>
<td>2.</td>
<td>While-activities</td>
<td></td>
</tr>
<tr>
<td></td>
<td>A. The Mastery of Learning Material</td>
<td></td>
</tr>
<tr>
<td></td>
<td>• Correlating the material with other relevant knowledge.</td>
<td></td>
</tr>
<tr>
<td></td>
<td>• Correlating material with the real life.</td>
<td></td>
</tr>
<tr>
<td></td>
<td>• Achieving communicative competence.</td>
<td></td>
</tr>
<tr>
<td></td>
<td>• Using logical structure.</td>
<td></td>
</tr>
<tr>
<td></td>
<td>• Using language components</td>
<td></td>
</tr>
<tr>
<td></td>
<td>B. The Learning Strategy</td>
<td></td>
</tr>
<tr>
<td></td>
<td>• Doing a teaching and learning process which is suitable with the competence.</td>
<td></td>
</tr>
<tr>
<td></td>
<td>• Doing a coordinated teaching learning process.</td>
<td></td>
</tr>
<tr>
<td></td>
<td>• Doing a teaching learning process which can build the students’ positive attitudes.</td>
<td></td>
</tr>
<tr>
<td></td>
<td>• Doing a teaching and learning process which is suitable with the time allocation.</td>
<td></td>
</tr>
<tr>
<td></td>
<td>• Emphasizing on using English in the teaching and learning process.</td>
<td></td>
</tr>
<tr>
<td></td>
<td>• Emphasizing on teaching the language skills integratedly.</td>
<td></td>
</tr>
</tbody>
</table>
### C. The Use of Learning Media
- Showing the skill in the learning media.
- Producing an interesting message from the media.
- Involving the students in making and using the media.

### D. The Students’ Involvement
- Building the active participation of the students in the teaching and learning process.
- Giving positive responds to the students’ opinion.
- Facilitating the interaction between teacher-student and student-student.
- Showing a conductive interpersonal relationship.
- Growing the students’ enthusiasm in learning.

### 3. Post-activities
- Doing a reflection / making summary of the lesson by involving the students’ participation.
- Doing a follow-up by giving direction or tasks as a remedy.

<p>| | |</p>
<table>
<thead>
<tr>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Total Score</strong></td>
<td></td>
</tr>
<tr>
<td><strong>Average Score</strong></td>
<td></td>
</tr>
</tbody>
</table>

*(Source: Dep. Pendidikan Nasional, 2006)*

Description of Scores:

1. 40 – 59 : Poor
2. 60 – 69 : Enough
3. 70 – 79 : Good
4. 80 – 100 : Very Good
b) Students' Activities

The researcher observed students' learning process by using observation checklist and interpreted the result of the teaching learning process. The observation is aimed to find out students' interest following the class and responding to the topic, students' attention to teacher's explanation, their focus on doing the exercise, and their ability in responding the teacher's questions. All of the important things occurred in the teaching learning process was also noted. Here is the example of the students' observation checklist:

Table 2. Students’ Observation Checklist

<table>
<thead>
<tr>
<th>NO</th>
<th>Students’ Activities</th>
<th>Students’ Code</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.</td>
<td>Pre-Activities</td>
<td>1 2 3 4 5 6</td>
</tr>
<tr>
<td></td>
<td>• Responding to the topic enthusiastically</td>
<td></td>
</tr>
<tr>
<td>2.</td>
<td>While-Activities</td>
<td></td>
</tr>
<tr>
<td></td>
<td>• Paying attention to the teacher’s explanation</td>
<td></td>
</tr>
<tr>
<td></td>
<td>• Responding to the teacher’s question</td>
<td></td>
</tr>
<tr>
<td></td>
<td>• Following the teacher’s instruction (work in group)</td>
<td></td>
</tr>
<tr>
<td>3.</td>
<td>Post-Activity</td>
<td></td>
</tr>
<tr>
<td></td>
<td>• Able to respond to the teacher’s question</td>
<td></td>
</tr>
<tr>
<td></td>
<td><strong>Percentage of Students’ Activities (%)</strong></td>
<td></td>
</tr>
</tbody>
</table>
3.4 Data Analysis

The data analysis done during and after the data had been collected in every cycle. The researcher analyzed and made reflection from the data collected from the first cycle. From the analysis and reflection, the researcher found out the strength and also the weakness of the first cycle so that researcher and teacher could improve the weakness aspect by giving solution in the following cycle.

In data analysis, the data was classified into two categories, those were, the data of the learning process and of the learning product.

a. Learning Product

In order to find out the learning product, the researcher used vocabulary test to collect the data. The vocabulary test for cycle I consisted of 25 multiple choices covering 13 nouns, 4 verbs and 9 adjectives. After giving the researcher checked students' vocabulary and gave the score. Besides, the researcher analyzed students' vocabulary score to find out the errors made by the students. The researcher also specified vocabulary mastered students into table of specification, whether it was on their noun, verb, or This analysis that mostly mastered by the students. is was very important to know what to improve in the next cycle. Next, the researcher calculated the number and percentage of the students who got 66 or more, since the standard score or Kriteria Ketuntasan Minimal (KKM) of English object at the first grade SMA PGRI 1 Batanghari.
The following formula was used to calculate the percentage of students who got it ≥ 66

\[
\frac{\text{Number of students’ who get } \geq 66}{\text{Total number of students’}} \times 100\%
\]

The following formula was used to calculate the percentage of students’ vocabulary mastery

\[
\frac{\text{Number of students’ vocabulary mastery}}{\text{Total number of vocabularies}} \times 100\%
\]

b. Learning Process

Observation sheets is used in collecting the data from the learning process. The result of the observation sheets was analyzed after every cycle was done. The observation was done to observe students’ activities and also teachers’ performances, and both were analyzed separately.

c. Students Learning Activities

In analyzing the data from observation to students’ learning activities, the researcher counted the number of activities done by the students and then calculated the percentage of the students’ activities. The following formula was used:

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

\[
\%A = \text{percentage of students activities}
\]
A = number of students activities observed

n = number of students in the Class

Next, the researcher made a description from the data that had been analyzed.

d. Teachers Teaching Performance

In analyzing data from teacher performance, the researcher counted the total score by summing up scores from all aspects covering teacher's activities in whine activity, and post-activity. Researcher also made a description from the data that had been analyzed.