3. RESEARCH METHOD

This chapter deals with research setting, research design, research participants, data collecting techniques, research instrument, research procedure, and data analysis.

3.1. Setting

This research was administrating at the second grade of SMP Negeri 8 Bandar Lampung. The researcher has done the research in four meeting and was focus on all of students in VIII B class of SMPN 8 Bandar Lampung.

3.2. Research Design

This research is a qualitative study which is focused on one type of qualitative, a Phenomenological. Suparman (2009) states Phenomenological study is a study that represents a psychological approach of some phenomenon. In this research a psychological approach helped the researcher observed the phenomenon in the class when student were learning vocabulary. The researcher observed and collected the data from three data collecting techniques: observation, interview, and documentation in order to know the use of crossword puzzle on students' interaction in learning vocabulary.

3.3. Research Participants

The participants of this research were the second grade students of SMPN 8 Bandar Lampung. The research focused on all students in one class of SMPN 8 Bandar Lampung. Research participants are 24 students in class VIII B. To make the data more clear the researcher carried out the research in several different meeting in the same group. Two groups consist of male and female students and two other defied as one female group and one male group.

3.4. Data Collecting Techniques

The researcher used three kinds of data collection techniques that are observation, interview, and documentation. The three data collecting tecniques may help researcher to get data more accurately. The data collecting techniques used are:

1. Observation

Observation is the first data collecting technique, where the researchers conducted observation directly to the object of study for a close look at the activities carried out (Riduwan, 2004: 104). Observation helped the researcher answered the first research question. Observation method is often defined as the systematic observation and recording of the symptoms seen in study subjects. Observation techniques should be conducted in two subjects who are actively reacting to the object.

The criteria to be considered by observer among others:

1. Possessing the knowledge of the object to be study

2. Understanding of general purpose and special purpose implementation research.

3. Determining how and the tools used in the data record.

4. Determination of the income categories of symptoms is observed.

5. Observing and recording should be carried out carefully and critically.

6. Recording each symptom must be carried out separately so not to affect each other.

7. Ownership of the means of knowledge and skill and how to record the results of observation.

The observation held structurally with using many aspects in the students' interaction that was appear in second grade class of SMPN 8 Bandar Lampung. The aspects that were observed will arrange structurally with video shooting to record the environment in the class. In this study the researcher put herself as *participant observer*. Participant observer means that the researcher not only acts as observer but also as one of subject who was directly influence the observation. The researcher chose to be a participant observer because she wanted to teach vocabulary using crossword puzzles with her own way using crossword puzzle game. The research observed the whole interaction of students in the class before and after students studied vocabulary using crossword puzzle. The observation in the class focused on interaction between students-students' and students' interaction in facing up the material in the class using media crossword puzzle. The observation sheets will be filled by the researcher, co-observer, and English teacher.

2. Interview

Interview is a conversation in which one person (*the interviewer*) elicits information from other person (*the subject of interview*). Interview is a specialized pattern of verbal interaction initiated for a particular purpose, and focused on a number of specific content areas. There are seven kinds of interview;

1. *Man in the street interviews*. It is conducted when the journalists were covering an event directly in the field and ask the audience response to the incident.

2. *Casual interview*. The interview was conducted because of the sudden there is urgent need.

3. *Personality interview*. Interviews and hold one person or character profiles.

4. *New interview*. An interview often conducted by journalism to gather facts for broadcast.

5. *Telephone interview*. Interviews were conducted via telephone used at live events on television.

6. *Prepared question interview*. The interview used more preparation in time, question, and also in choosing the subject of interview. This aim to get clear response to the things that are quite complicated as the data or scientific concerns.

7. *Group interview*. Interview from is usually done together (group) to obtain information from a group of speakers or so-called symposium.

From many kinds of interview above, the researcher used just one kind of interview. The kind of interview which is used by researcher is the sixth kind of

interview, *prepared interview* because the researcher has good preparation in doing interview, the researcher prepared the questions that were asked to the subject of interview, and prepared to choose some subjects of interview who were represent the whole students in the class.

The researcher used interview because it can help the writer answered the second research question. The researcher was interviewing some of students to know their response after they have studied vocabulary in the class using crossword puzzle. The samples have chosen randomly. The questions that were asked consists of some points relating to students' interaction in learning vocabulary using crossword puzzle.

The researcher was interview both of two gender of students, 5 males and 5 females, about how they feel in the class, is the condition of learning process make them interested to study vocabulary and how their interpreted about their interaction in learning vocabulary using crossword puzzle game. The researcher was asking several questions about that kind of problems than write down the answer and the conclusion from their answer systematically.

3. Documentation

The last data collecting tools is using record of video situation in the class while the students learning vocabulary using crossword puzzle to answer the second research question. The video record is one of the kinds of multimedia documentation. Documentation is a set of documents provided on paper, or online, or on digital or analog media, such as audio tape or CDs. Documentation has many meanings, from the broad--anything written in any medium--to the

narrow--policies and procedures manuals or perhaps records." (Adrienne Escoe, 2001).

The researcher made documentation of the learning process in the class because it can record the whole students' interaction when they are study in the class using crossword puzzle. The documentation was video record, to make the documentation more clear with audio-visual form. The video have catched the whole interactions of the students in the class when they were learning vocabulary using crossword puzzle, from that video the researcher could see the use of crossword puzzle game in influencing students' interaction. It also recorded interaction between students and students or students and teacher.

3.5. Research Instrument

The research instrument was vocabulary game in which in this research the researcher used crossword puzzle game. The crossword puzzles that was used are the simple crossword puzzle with consists of some grids (empty space on chequered square) with certain arrangement and the clues. There were three crossword puzzle sheets that the writer made. First, crossword puzzles about guessing simple vocabulary from Indonesia translate to English. Second, crossword puzzle game with complex sentence clues. And the last is the complete crossword puzzle game to test the understanding of students.

3.5.2.1. Validity and Reliability

1. Validity

Validity is the extent to which a concept, conclusion or measurement is well-founded and corresponds accurately to the real world.

1. **Content validity**

   Validity is the extent to which a concept, conclusion or measurement is well-founded and corresponds accurately to the real world. Content validity is related with the test item in the measurement. It means that the test should focus of the course and represent the subject matter content. In this researcher the test have change with the result of interview and video of the interaction student in the class while they study vocabulary using crossword puzzle.

2. **Construct validity**

   Construct Validity is used to ensure that the measure is actually measure what it is intended to measure (i.e. the construct), and not other variables. Using a panel of "experts" familiar with the construct is a way in which this type of validity can be assessed. The experts can examine the items and decide what that specific item is intended to measure. Students can be involved in this process to obtain their feedback. Construct validity plays an important role to measure what should be measure.

3. **Concurrent validity**

   Concurrent validity is a type of evidence that can be gathered to defend the use of a test for predicting other outcomes. It is a parameter used in

sociology, psychology, and other psychometric or behavioral sciences. Concurrent validity is demonstrated when a test correlates well with a measure that has previously been validated. The two measures may be for the same construct, but more often used for different, but presumably related, constructs.

From those three kinds of validity the researcher used content and construct validity. Content validity will based on the clues which are used in crossword puzzle game and the construct validity based on the curriculum which is used by teacher in SMPN 8 Bandar Lampung. To make the data more valid the researcher measured it with using triangulation way of three data collecting techniques. Three of them have connection each other the first data collecting techniques was support the second data, the second data was support the third data and so on.

2. Reliability

The researcher uses reliability between groups. Reliability is an index that indicates the extent to which a measure is reliable or unreliable. When a measuring instrument used to measure two times the same symptoms and the results of measurements obtained are relatively consistent, the measuring instrument is reliable. Or in other words, reliability indicates the consistency of a measuring instrument for measuring the same phenomenon.

3.6. Research Procedures

As the researcher, the writer came to the class as non-participant observer first. After observing how the condition of the students in learning vocabulary in common way, the second day researcher came as participant observer to conduct

the class learn vocabulary using media crossword puzzle, after that, the condition in the class should be recorded as video form to help researcher see how the students' interaction in the class in learning vocabulary using crossword puzzle. After being that way, researcher chose ten students consist of five males and five females randomly to doing some interview with researcher, in this step the students number can be change may be more than ten depending on the level of compliance data that researchers want to get.

These are the complete explanation about the research procedure;

1. Determining the research problems

   The problems of the research was intended to identify the effect of crossword puzzle and to investigate the whole process in learning vocabulary by using crossword puzzle in a group work of the students to see the students' interaction in the class.

2. Finding the subjects of the research

   The subjects of this research were all the students in second grade of SMPN 8 Bandar Lampung in first semester of academic year 2014/2015. The writer chose the class randomly.

3. Determining the research design

   The research design used qualitative design to identify the whole interaction of students in the class when they are learning vocabulary using crossword puzzle.

4. Doing first observation

   The researcher did first observation before teacher gives a treatment to students in learning vocabulary in the class. The researcher made

observation sheet about the interaction and students' motivation in the class before they learn vocabulary using crossword puzzle.

5. Conducting the treatment

The students have been given a treatment. They learned vocabulary using crossword puzzle games.

6. Doing interview to some of students

After the students studied vocabulary using crossword puzzle, the researcher chose some of students include male and female students to be subjects of interview. This interview focused on how the feeling, motivation and opinion of students about learning vocabulary with crossword puzzle.

7. Analyzing the data

After the procedures of the research done, the researcher focused in analyzing the data which has been obtained.

8. Concluding the result

After analyzing the data, the researcher found the result. From the result the researcher analyzed it and made the conclusion about the result of the research.

9. Reporting the result

The result of this research reported in the script including the suggestion from the writer.

3.6.1. Schedule of the research

No.	Meeting	Activities
1.	First meeting	Observed the first condition in the class, how the students' interactions in learning process using a common media of learning. (made observation sheet)
2.	Second meeting	The researcher was identifying students' interaction in learning vocabulary by using crossword puzzle.
3.	Third meeting	The researcher was identifying students' interaction in learning vocabulary by using crossword puzzle, more specific to focus on the students' different motivation to interact in the class.
4.	Last meeting	did interview with some students (5 males and 5 females)
5.	In every meeting	Record every situation in class with video shooting.

3.7. Data Analysis

Having finished the field research by monitoring the students' interaction in the class, the researcher analyzed the result of the research by these following procedures:

A. Observation

Data from observation was analyzed by researcher systematically. The researcher saw the students' expression, behavior, activities, problems and interaction in the class when they study vocabulary before using cross word puzzle. The data was written down in observation sheet.

B. Interview

The researcher arranged the data with making two classification data results between male and female students; this aim to help the researcher got the data clearer. From that data it can be seen the different kind of perception and motivation to interact between males and females when they study vocabulary using crossword puzzle.

C. Documentation

This data from documentation is a secondary data that are focused on making data observation and interview complete. The Data from documentation showed students' expression, behavior, activities, motivation and interaction in the class when they study vocabulary with crossword puzzle. From the data after and before students study with crossword puzzle game the researcher found the students' motivation to interact in the classroom. The data will be analyzed by doing transcription and coding system.

3.7.1 Interaction Analysis

Interaction categories

The data from recording and observation will also be analyzed using technique propose by Flanders. Flanders originally devolved a research tool, namely Flanders Interaction Analysis (FIA), which become a widely used coding system to analyze and improve teaching skill. Categories of Flanders Interaction Analyses used in this research are described in the following table:

Table 3.1. Categories of Flanders Interaction Analyses

	Categories
Indirect Influent	1. Accept feeling 2. Praises or encourages 3. Accept or uses ideas 4. Ask question
Direct Influent	5. Lectures 6. Gives direction 7. Criticizes or justifies authority
Students Talk	8. Student talk response 9. Student talk initiation 10. Silence of confusion

Interaction patterns

Interaction patterns are important to be analyzed in this research. There are six

patterns of interaction, they are: Table 3.2. The kind of interaction patterns.

No	Pattern	No	Pattern
1	teacher – students [T-Ss]	4	teacher – student [S-T]
2	students –teacher [Ss-T]	5	teacher - student – student [T-S-S]
3	teacher – student [T-S]	6	student – student [S-S]

The researcher analyzed which kind of pattern that will be appeared.

Interactive Principles

Table 3.3. The kind of Interactive Principles

Interactive Principles
1. Automaticity True human interaction is best accomplished when vocal attention is on meanings and not on grammar and other linguistic forms
2. Intrinsic Motivation As students are engaged with each other in speech act of fulfillment and self-actualization their deepest drive are satisfied.
3. Strategic Investment Interaction require the use of strategic language competence both to make certain decisions on how to say or write interpret language and to make repairs when communication path ways ware blocked.
4. Risk Taking Risk taking requires of failing producing intended meaning of being laughed or rejected.
5. Communicative Competence All of the elements of communicative competence (grammatical, discourse, sociolinguistic, pragmatics and strategies) are all involved in human interaction.
6. Inter Language The complexity of interaction emails a long developmental process of acquisition.
7. The Language Culture Connection The cultural loading of interactive speech as well as writing requires the interlocutors be thoroughly versed in the cultural nuances of language.

3.7.2 Motivation Analysis

To analyzed students' motivation in interacting when they are studying

vocabulary using crossword puzzle game, the data from recording will also be

analyzed using The theory from Abraham Maslow (2009) that showed there are five level of human motivation: self-actualization, esteem, social, safety, and physiological. This is the pyramid of motivation level by Abraham Maslow.

Physiological level is the base level of motivators of hierarchy of needs within Maslow's theory. This segment covers breathing, food, water, excretion, sex, and sleep. Except the last two, a working environment that assures that these needs are satisfied can positively influence the employees.

Safety level is the next level of Maslow's hierarchy of needs. This group of need covers personally safety, employment security, health and property. This segment is very important.

Belonging and love is the next level of hierarchy of needs in the Maslow's theory. This group contains the need of belonging to group, family and sexual contact.

Esteem level is the base level of motivators of human's ego.

Self-actualization is the top level of hierarchy of needs and contains the morale, reactivity, openness and clear mildness.