TEACHING SPEAKING BY USING CURIOSITY BOX STRATEGY TO VOCATIONAL LEVEL STUDENTS

Herlina and Melati
STMIK Musi Rawas Lubuklinggau, South Sumatera, Indonesia
Email: herlina6102@gmail.com

Abstract

The aim of this research was to find out whether or not it was significantly effective to teach speaking by using curiosity box strategy to vocational level students. The subject of this research was the eleventh grade students of Vocational High School Number 2 Lubuklinggau. In this research, the writer formulated two hypotheses. There were null hypothesis (Ho) and alternative hypothesis (Ha). In this design, the writer used pre-experimental method. The total population was 297 students and sample of the research was 32 students taken through cluster random sampling. The writer used oral test as a technique for collecting the data. The data was analyzed through four techniques: 1) students' individual score; 2) comparison to minimum mastery criteria; 3) normality test and 4) paired t-test. Based on data analysis, it showed that the student's average score pre-test was 53.21 while the post-test was 72.14. Thus, the result of paired t-test calculation was 14.02 which was higher than 1.697 as critical value with degree of freedom 31 (32-1) with 95% significant level for one-tailed test. Finally, the null hypothesis (Ho) was rejected and alternative hypothesis was accepted. It means that it was significantly effective to teach speaking by using curiosity box strategy to vocational level students at Vocational High School Number 2 Lubuklinggau.

Keywords: *teaching, speaking, and curiosity box strategy*

1. INTRODUCTION

In Indonesia, English has been taught as a foreign language in every education level starting from elementary school, up to university levels. There were some language which have become the target language to be learned especially English because English is the most common language spoken by people all around the world as a communication tool. In addition, the process of English learning at school should be presented through various strategies that are appropriate to English subject so students can increase their English skill. In English learning process, students are suggested to always practice English. Consequently, students get a chance to increase their confident to use English as foreign language. Finally, students can communicate in English in their daily activities in or outside their countries.

In learning English, students have to research four language skills. They are listening, reading, speaking and writing (Brown, 2001:232). Dealing with the four skills, speaking skill has an important role in communication. Through speaking skill, students can communicate and share everything to other students. A part of communication in speaking is regarded most representing what the speakers want to say (Astanniah, 2009:11).

Many people feel that speaking in a new language is harder than reading, writing, or listening for two reasons. First, speaking happens in *real time:* usually the person you are talking to is waiting for you to speak right then. Second, when you speak, you cannot edit and revise what you wish to say (Nunan, 2003:48). Speaking is totally natural, speaking is also very important to everyone when there were some person meet the others people as oral communication.

According to Brown (2001:263), speaking is an interactive process of constructing meaning that involves producing, receiving, and processing information. It means that in speaking we had to express our opinion, feeling and ideas correctly in order to every single person can understand the massage. In addition, speaking as one of the important skill has to be used directly when there are some persons meet

the others to carry out a conversation in the language. Conversation or speaking with other people is more simply to the students as the habitual which often done in their days and be easy to themselves.

Based on interview to the English teacher of Vocational High School Number 2 Lubuklinggau, writer got some information of the students' problem in speaking. There were some factors which make some students cannot speak well. Firstly, students had less vocabulary. Secondly, students seldom practice speak English. Finally, the most serious problem by students in learning speaking was less of variation in learning process until students do not consider English lesson seriously.

In teaching speaking, there were many strategies that can be used to transfer materials well to the students. One of the strategies was curiosity box strategy. According to Coultas (2002:27), curiosity box is a strategy that helps students to develop oral language skills by sparking conversation about a topic. It means that this strategy provides students to practice by making each student participate in conversation by convey meaning so that they are able to achieve fluency in speaking English. Curiosity box had benefit for students that can improve result of research such as: curiosity box strategy will build conversation among students and curiosity box strategy used illustration and word knowledge and confirm a prediction of an object in the box. Dealing with these reasons, the writer interested to investigate dealth with in the following question: "was it significantly effective to teach speaking by using curiosity box strategy to vocational level students?"

2. LITERATURE REVIEW

2.1 Theoretical Description

2.1.1 The Concept of Teaching

According to Brown (2001:7), teaching is guiding and facilitating learning, enabling the learner to learn, setting the condition for learning. It means that the teacher determiners as a facilitator, guide, motivator and manager. As a facilitator, a teacher provided facilities such as circumstances, equipment, aids, etc that made learners possible or easier to learn. As a guide, a teacher shows or helped learners to learn how to do something and understood knowledge. Then, as a motivator, a teacher stimulated the interest of learners. Finally, as a manager, a teacher who arranges information and environment then manage the time and class in conductive atmosphere.

In addition, Dalton (2008:7) states that teaching is composed of three processes. First, the teachers must access the students learning zone through joint activity in order to stimulate the learning process. Second, the teacher must assist the students within activity to identify what the students knows or needs to know, and can understand the new information. Finally, the teacher and students must work together to expand the students understanding for use in new situation.

According to Greer (2002:5), teaching is a dynamic interaction among four components: (a) the students, (b) the teacher, (c) the curriculum (or what is being taught) and (d) the learned repertoire (how to used it and when to used it).

Based on the explanation above, it can be concluded that teaching is an activities is implemented by teacher, giving knowledge and skill to students. The activity of teaching must be accurate in the process. That is a process of students' learning and a process of teacher in demonstrating a lesson material.

2.1.2 The Theory of Speaking

Speaking is one way to communicate which ideas and though a message orally. To enable students to communicate, we need to apply the language in real communication. According to Turk (2003:9) speaking is the direct route from one mind to another, and is the way we usually choose when we want to ask a question, or give an explanation.

According to Tarigan (1985:15) speaking is communication, the speaker expresses his or her ideas or feelings to his or her listener or audience and it is an effective way to interact people in social life. It is mean that speaking is a medium of communication with other people, without speaking someone cannot express ideas, opinions, statements and feelings with others orally. Speaking cannot be separated from the direct interaction activity in everyday life because through speaking, the listener and

the speaker are able to exchange information such as information of politic, economic, education and so on.

2.1.3 The Explanation of Teaching Speaking

Basically teaching speaking is the teacher's way of how to teach the students to speak or communication in spoken form. According to Kayi (2006:1) teaching speaking is the process to enable the students to acquire the five important abilities of the language. First, to enable students to use English speech sounds and the sound pattern; it is deal with pronunciation activities. Second, to enable students to arrange word and sentences so that students are able to select to appropriate words and sentences based on the social setting, audience, situation, and the subject of matter. Third, to enable students to organize their mind in meaningful and logical sequences. Finally, to enable students to use language as the meaning of expressing value and judgment. Students will have chance to communicate orally and fluency with other by using English when the teacher uses interesting strategy in teaching learning process.

Teaching speaking is to teach the ways to communicate, transfer ideas, or even feeling to other people. The English teacher should make the students speak English and give guidance to communicate in English. In teaching speaking, the teacher should find interesting activity that is relevant to the students' age and level so that it can make them interested in speaking English and help them to absorb the knowledge and information in teaching and learning process.

2.1.4 The Understanding of Expression of Handling Guest

Handling guest is how our manner serve guest with kind and respectful until guest will feel comfortable. In this research, there are four expression of handling guest namely in the hotel, in the restaurant, in the office and in the shop (IKAPI, 2015:31).

Table 1. Expression of Handling Guest

In the Hotel	**In the Restaurant**
a. Welcome to our hotel b. I am sure you will enjoy your stay here. c. We have some facilities for our guests. d. What sort of room do you need? e. What room do you prefer, single or double bed?	a. Welcome to our restaurant b. I hope you enjoy the food c. We have special menu today d. What would you like to order e. What kind of … do you like? f. How about the drink? g. Would you like something for dessert?
In the Office	**In the Shop**
a. Greeting b. What can I do for you, sir? c. Could I take your name, please? d. Just a moment, please I'll see if Mr./Mrs. … is free/available? e. Have a seat, please … f. Would like something to drink? g. I'm sorry, sir. Mr./Mrs. … is not in. h. Would you like to leave a message?	a. Can I help you? b. What can I do for you, madam/sir? c. May I help you? d. Which one fixes you? e. Which do you like?

2.1.5 The Definition of Curiosity Box Strategy

According to Coultas (2002: 27) Curiosity Box is a strategy that helps students to develop oral language skills by sparking conversation about a topic. It means that this strategy provides students to

practice by making each student participate in conversation by convey meaning so that they are able to achieve fluency in speaking English.

Brassell (2011: 58) also points out that curiosity box strategy help students to overcome the reticence by assuring the students that understanding and the need for clarification can occur in any type of interaction. The benefit of curiosity box strategy as follows: curiosity box strategy will build conversation among students, besides the students know about the relationship between the object and topic. Curiosity box strategy uses illustration and word knowledge to check and confirm a prediction of an object in the box.

2.1.6 The Steps of Curiosity Box Strategy

Brassell (2011:59) also explains several steps applying Curiosity Box Strategy as follow:

a. To prepare the lesson, secede on the topic of focus for the curiosity box. Gather objects related to the topic and place these items in a box. Make a list of vocabulary word that the teacher wants the students to know based on the topic.
b. To begin the lesson, gather students so they can be easily to see the box. Do not tell students the new topic of research. This is what keeps the "students' curiosity" and keep it exciting.
c. Pull one object from the box and identify or describe the object. Pass the object around the class.
d. Remove a second object from the box and identify and pass it around the class. Ask students to identify the object. Then encourage the students to describe the object.
e. Continue this discussion until all of the objects have been pulled. Write the following question words on the board. What? When? Where? Why? Who? How? Encourage the students to use these words to ask questions about the objects. Record the list of questions on the board.
f. Ask students to try to name the new topic of research. Based on the collection of the objects. Then, review each object in the box.
g. Finally, ask students to brainstorm other vocabulary words associated with this topic using the objects from the box for ideas.

These steps are intended to make students easy to see the box and the objects when the objects are pulled out of the box. Students describe the objects; make a simple conversation based on the topic by using the objects.

2.2 Theoretical Framework

In this research, the writer presented the theoretical framework. The theoretical framework was a connecting structure or series of experiment's process that the writer will had been done from the beginning until making the conclusion.

It included the chronology of activities of research that was described by the cart. The theoretical framework in this research clearly described on the following chart in the next page.

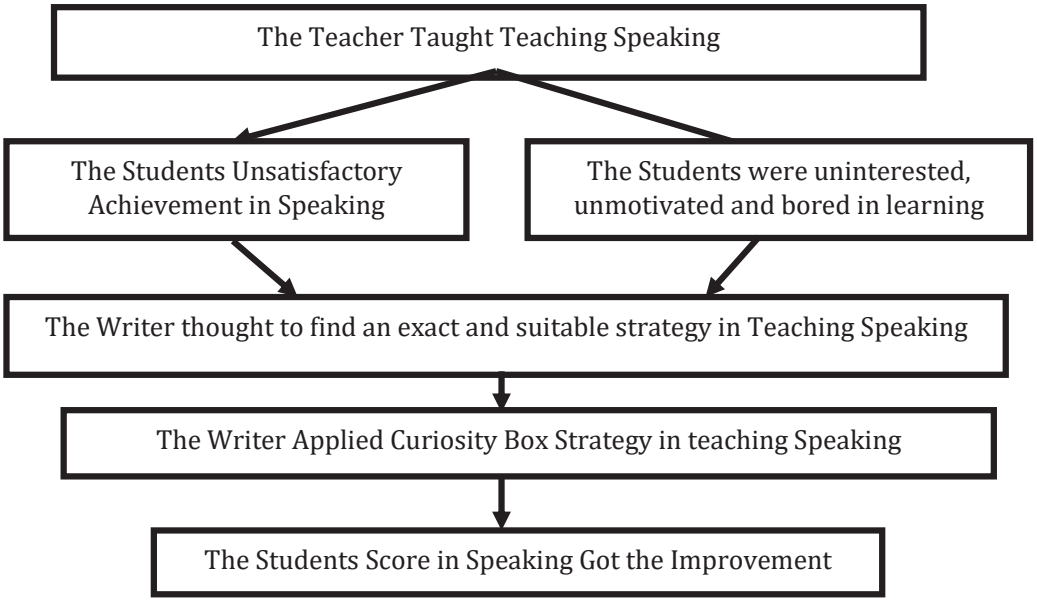


Chart 1.
Theoretical Framework

2.3 The Hypotheses

According to Latief (2014:68), hypothesis is of several types, each of which has to be stated according to its own function and placed accordingly. According to Kothari (2004:184) hypothesis is usually considered as the principal instrument in research. Its main function is to suggest new experiments and observations. Related to explanation above, the hypotheses of this research were as followed:

a. The alternative hypothesis (Ha) is stated that it was significantly effective to teach speaking by using curiosity box strategy to vocational level students.
b. The null hypothesis (Ho) is stated that it was not significantly effective to teach speaking by using curiosity box strategy to vocational level students.

The hypotheses were tested based on the empirical data. For testing the hypotheses, the researcher will use the $t\text{-}_{table}$ ($t\text{-}_{tab}$). Since the significance level is 95% (0.05) for one-tailed testing with df = 31 (32-1), the $t_{critical}$ value in the $t\text{-}_{table}$ is 1.697. Based on the number of the students as the sample and the level of significance, the critical values of this research were as follow:

1. If the $t\text{-}_{obtained}$ is less than 1.697, the null hypothesis is accepted.
2. If the $t\text{-}_{obtained}$ equals or exceeds 1.697, the null hypothesis is rejected and consequently, the alternative hypothesis is accepted.

3. Method of Research

3.1 Research Design

In this research, the writer used a pre-experimental method with one group pre-test and post-test design. According to Borg and Gall in Latief (2014:670) said that pre experimental design is one-group pre-test and post-test design and this pre-experimental research can be done to investigate. After the treatment finished, the post test was administered to see students' speaking achievement. The effectiveness of the instructional treatment was measured by comparing the average score of the pretest and post test. When it turned out that the average score in the post-test was significantly higher than the average score in the pre-test, then it can be concluded that the Curiosity Box Strategy used in the

treatment instructional was effective. Based on this method, the research was conducted through three stages, namely: (1) Pre-test, (2) Treatment and (3) Post-test.

In this design, the writer gave a treatment to the sample. The pre-test was given before giving treatment and post-test after giving treatment. The following was table of pre-experimental:

Table 2. One Group Pre-test and Post test Design

Group	Pre-test	Treatment	Post-test
Experiment	T_1	X	T_2

(Isaac and Michael, 1985:64)

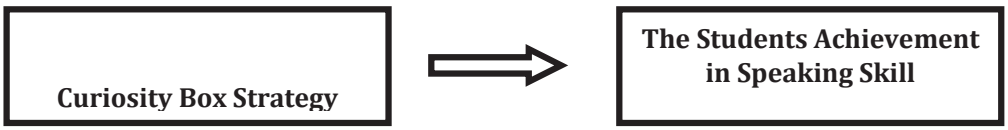
Where:
T_1 = Pre-Test
X = Treatment
T_2 = Post-Test

According to Isaac and Michael (1985:28), the steps that would be taken in doing the writer are follows:

a. Surveying literature relating to the topic investigated;
b. Formulating the research problems;
c. Making a research design;
d. Writing the test material for collection the data;
e. Doing the pre-test at school to get the data;
f. Conducting the experiments;
g. Doing the post-test at school to get the data;
h. Analyzing the data;
i. Drawing a conclusion based on the data and
j. Writing research report as a thesis

3.2 Research Variables

There were two variables in this research; they were independent variable and dependent variable. According to Fraenkel and Wallen (1990:15), independent variable is the major variable which you hope to investigate. It is the variable which is selected, manipulated, and measured by the researcher. Dependent variable is the variable which you observe and measure to determine the effect of the independent variable. In this research, the independent variable was Curiosity Box strategy, and the dependent variable was the teaching speaking skill. The following chart showed the research variables:



Independent variable Dependent variable

Chart 2.
Research Variables

3.3 Subject of the Research

3.3.1 Population

Population is the group to which the results of the research are intended to apply (Fraenkel and Wallen, 1990:78). According to Latief (2014:181) target population is usually too large to reach, so the researchers usually limit the sources of the data into the accessible population, the source of data that the researchers have access to get the data from.

The population in this research was all of the eleventh grade students of Vocational High School Number 2 Lubuklinggau. There were ten classes, so the total number of population was 297 students. The table below showed the population of the research:

Table 3. The Population of the Research

No	Class	Total
1.	XI Ak. Perhotelan 1	32
2.	XI Ak. Perhotelan 2	33
3.	XI Ak. Perhotelan 3	32
4.	XI Ak. Perhotelan 4	32
5.	XI Ak. Perhotelan 5	31
6.	XI Ak. Perhotelan 6	31
7.	XI Tata Busana 1	26
8.	XI Tata Busana 2	25
9.	XI Tata Busana 3	26
10.	XI Tata Boga	29
	Total	**297**

(Source: Vocational High School Number 2 Lubuklinggau)

3.3.2 Sample

According to Fraenkel and Wallen (1990:78) sample is a group in a research research on which information is obtained. From the definition above, the writer took one class as the sample of this research. The writer used cluster random sampling technique. Cluster random sampling technique is the selection of groups will be investigated (Fraenkel and Wallen, 1990:95). The advantages of cluster random sampling are that it can be used when it is difficult or impossible to select a random sample of individual, it is often far easier to implement in schools, and it is frequently less time-consuming.

In selecting the sample, the writer used some small pieces of paper and wrote the name of classes. Afterwards she rolled them and put them in glass and shook them repeatedly, then took one of them randomly. The result showed that the sample of this research was class XI. Ak. Perhotelan 4 consists of 32 students.

3.4 Technique for Collecting the Data

Arikunto (2010:265) states that the collecting the data is the most important work in research. In the collecting data, the writer used an oral test. According Heaton (1988:89) oral communication is general rated so highly in language learning, testing of oral production usually forms an important part of many languages testing programmed.

The test was given twice as pre-test and post-test, pre-test was given before doing the treatment and post-test after doing treatment. For collecting the data, the writer gave instruction the students for practice a dialogue with the expressions handling guest based on the situation in the box. The writer gave 90 minutes for students to finish the test.

3.5 Technique for Analyzing the Data

In analyzing the data obtained from the test, the writer used four techniques. They were: 1) individual scores, 2) minimum mastery criteria 3) the normality test and 4) matched t-test.

3.5.1 Individual Score

To analyze the data, the writer recorded the test while doing the speaking test and the writer was helped by other rater. She is a teacher the eleventh grade students of Vocational High School Number 2 Lubuklinggau. To find out the students' individual score in the speaking test, we need the rating scale to make it easier. For getting the students' individual score, the writer used the rating scale.

Table 4. The Speaking Scoring Scale

	Accuracy	Fluency	Comprehensibility
6	Pronunciation is only very slightly influenced by the mother tongue.	Speaks without too great an effort with a fairly wide range of expression. Searches for	Easy for the listener to understand the speaker's intention and

	Two or three minor grammatical and lexical errors.	words occasionally but only one or two unnatural pauses.	general meaning. Very few interruption or clarifications required.
5	Pronunciation is slightly influenced by the mother tongue. A few minor grammatical and lexical errors but most utterances are correct.	Has to make an effort at times to search for words. Nevertheless, smooth delivery on the whole and only a few unnatural pauses.	The speaker's intention and general meaning are fairly clear. A few interruptions by the listener for the sake of clarification are necessary.
4	Pronunciation is moderately influenced by the mother tongue but no serious phonological errors but most utterances are correct.	Although he has to make an effort and search for words, there are not too many unnatural pauses. Fairly smooth delivery mostly. Occasionally fragmentary but succeeds in conveying the general meaning. Fair range of expression.	Most of what the speaker says is easy to follow. His intention is always clear but several interruptions are necessary to help him to convey the message or to seek clarification.
3	Pronunciation is influenced by the mother tongue but only a few serious phonological errors. Several grammatical and lexical errors, some of which cause confusion.	Has to make an effort for much of the time. Often has to search for the desired meaning. Rather halting delivery and fragmentary. Range of expression often limited.	The listener can understand a lot what is said, but must constantly seek clarification. Cannot understand many of the speaker's more complex or longer sentences.
2	Pronunciation seriously influenced by the mother tongue with errors causing a breakdown in communication. Many 'basic' grammatical and lexical errors.	Long pauses while he searches for the desired meaning. Frequently fragmentary and halting delivery. Almost gives up making the effort at times. Limited range of expression.	Only small bits (usually short sentences and phrases) can be understood - and then with considerable effort by someone who is used to listening to the speaker.
1	Serious pronunciation errors as well as many 'basic' grammatical and lexical errors. No evidence of having mastered any of the language skills and areas practiced in the course.	Full of long and unnatural pauses. Very halting and fragmentary delivery. At times gives up making the effort. Very limited range of expression.	Hardly anything of what is said can be understood. Even when the listener makes a great effort or interrupts, the speaker is unable to clarify anything he seems to have said.

(Source: Heaton (1989:100)

Heaton (1988:100) states that the standard of speaking skill areas follows:

Table 5. The standard of speaking skill

Speaking Components	Scores
Accuracy	6
Fluency	6
Comprehensibility	6
Total	**18**

(Source: Heaton (1989:100)

To find out the students' individuals scores, the following formula was used by each rater:

$$IS = \frac{SO}{TS} x\ 100$$

Where:
IS = Individual Score
SO = Score obtained
TS = Total score (the maximal score is 18)

After the two raters calculated the scores of each student, then the result of those two raters will be taken and added. Then the writer divided the result by two. Finally, the result of division was the students' individual score.

3.5.2 Comparison to Minimum Mastery Criteria

Comparison to minimum mastery criteria was a measure of the variability (spread) of a group of scores. It was compared to minimum mastery criteria. The minimum mastery criteria for the material that was taught based on the minimum mastery criteria (KKM) of Vocational High School Number 2 Lubuklinggau that is 70. If the scores are lower than 70, the students will be categorized "failed". But, if the scores are equals or higher than 70, the students will be categorized "passed".

3.5.3 Normality Testing

The normality of the data was often tested in inferential statistics analysis for one until more than one sample group. It was assumed that the normality of the data become a requisite to determine what kinds of statistics was used in analyzing the next data. In this part normality was tabulate according to the students' scores in the pre-test and the students' scores in the post-test normality of the test can be seen in pre-test and post-test. The writer applied some steps before calculate normality test. The step were as follow:

$$x^2 = \sum \frac{(Oi - Ei)^2}{Ei}$$

Where:
O_i = The observation Frequency
E_i = The Expectation Frequency *(Subana and Sudrajat, 2001:149)*

Before the writer calculate normality test, it was important to know some steps to calculate normality test. They were as follow:

a. Calculate mean score

$$\bar{X} = \frac{\sum x}{N}$$

b. Calculate standard deviation

$$SD = \sqrt{\frac{\sum x^2 - (\frac{(\sum x)^2}{n}}{n-1}}$$

Where:
SD = Standard deviation of the set of test score
X = Correct answers
N = Total student number
1 = Constant number

c. List of the observation frequency and expectation frequency
   1) Looking for the highest and the lowest score
   2) Looking for the distance (R)
      R = the highest score – the lowest score
   3) Looking for the interval class (K)
      K = 1 + 3.3 Log (N), with N = the students number
   4) Looking for length of interval class (P)
      $P = \frac{distance}{interval\ \ class}$

For calculating the normality for the students' score in the pre-test, the writer dividing the data to be interval class.

3.5. 4 Paired t-test

In this research, the writer used paired t-test for measuring of guided writing procedures. According to Hatch and Farhady (1982:144) state that paired t-test is often the case researcher want to compare the two means. The test is probably it can be used with very small sample sizes.

$$t = \frac{X_1 - X_2}{\overline{SD}}$$

Where:
t : T-obtained
X_1 : The students' Mean Score in the Post-Test
X_2 : The Students' Mean Score in the Pre-Test
$\overline{SD}$: The Standard Errors of Differences

(Source: Hatch and Farhady, 1982:116)

The formula of $\overline{SD}$ is:

$$\overline{SD} = \frac{SD}{\sqrt{n}}$$

Where:
$\overline{SD}$ = Standard Errors of Difference
SD = Standard Deviation
n = Number of Students

(Source: Hatch and Farhady, 1982:116)

Where the formula of SD is:

$$SD = \frac{\sqrt{\sum D^2 - (1/n)\left(\sum D\right)^2}}{n-1}$$

SD = Standard Deviation
D = the differences of mean before and after treatment
n = Number of Students *(Source: Hatch and Farhady, 1982:116)*

3.6 Accountability Research

To found out whether the test was good or not, the writer checked validity and reliability of the test firstly.

3.6.1 Validity

According to Latief (2014:212), validity refers to the degree of correctness of the writing skill assessment result in representing the writing skill being assessed (to what extent the result of language skill assessment result doesn't mistakenly represent another language skill, or to what extent the result of speaking skill assessment result doesn't mistakenly represent the knowledge of speaking). According to Fraenkel and Wallen (1990:139) validity is the most important idea to consider when preparing or selecting an instrument for use. The test specification was presented on the table below:

Table 6. Test Specification

No	Objective	Material	Indicator	No of items	Type of test
1.	The students are able to express Handling Guest in dialog conversation	Expression of Handling Guest - In the Hotel - In the Office - In the Restaurant - In the shop	The students can use Expression of Handling Guest through 3 components of criteria of scoring for speaking skill, like: Accuracy Fluency Comprehensibility	1	Oral Test
Total				**1**	

3.6.2 Reliability

Reliability means the stability of test score. According to Heaton (1989:162), reliability is a necessary characteristic of any good test for it to be valid at all; a test must first be reliable as a measuring instrument. In this research, the writer used inter-rater reliability or inter-observer. Inter-rater was a measure of reliability to give consistent estimates of the same phenomena with differences of raters. The scoring of oral test was judged by two raters. The first rater was the English teacher at the school to help writer in scoring and the second rater was the writer. The rater was correlated using product moment formula:

Where:

R_{xy} = The

N = The

X = The

Y = The

$$R_{xy} = \frac{\left(N\sum xy\right)-\left(\sum x\right)\left(\sum y\right)}{\sqrt{\left\{\left(N\sum x^2\right)-\left(\sum x\right)^2\right\}\left\{\left(N\sum y^2\right)-\left(\sum y\right)^2\right\}}}$$

After getting the value of reliability coefficient, then the writer calculated reliability for whole test by using Spearman Brown Formula (Hatch and Farhady,1982:247). The formula is the follow:

$$r_w = \frac{2rh}{1+rh}$$

r_w = Correlation for the whole Test

r_h = Correlation between two half of the Test

According to Fraenkel and Wallen (1990:99) for the research purpose, a rule a thumb is that reliability should be at least 0.70 and preferably higher. If the reliability coefficient is higher than 0.70, the test is considered reliable.

$$R_{xy} = \frac{\left(N\sum xy\right) - \left(\sum x\right)\left(\sum y\right)}{\sqrt{\left\{\left(N\sum x^2\right) - \left(\sum x\right)^2\right\}\left\{\left(N\sum y^2\right) - \left(\sum y\right)^2\right\}}}$$

$$R_{xy} = \frac{(32 \times 3086) - (298)(315)}{\sqrt{\{(32 \times 2942) - (298)^2\}\{(32 \times 3253) - (315)^2\}}}$$

$$R_{xy} = \frac{(98752) - (93870)}{\sqrt{\{(94144) - (88804)\}\{(104096) - 99225\}}}$$

$$R_{xy} = \frac{4882}{\sqrt{\{(5340)(4871)\}}}$$

$$R_{xy} = \frac{4882}{\sqrt{26011140}}$$

$$R_{xy} = \frac{4882}{5100.11} = 0.96$$

Then, the result of calculation above was calculated more through the Spearman Brown Formula (Hatch and Farhady, 1982:247), it was as follow:

$$r_w = \frac{2rh}{1 + rh}$$

$$r_w = \frac{2(0.96)}{1 + 0.96}$$

$$r_w = \frac{1.92}{1.96}$$

$$r_w = 0.98$$

Based on the calculating above, it was found out that the coefficient of reliability was (0.98). The students' score in the pre-test was reliable because inter-rater reliability coefficient was higher than 0.70 (Fraenkel and Wallen, 1990:149).

$$R_{xy} = \frac{\left(N\sum xy\right) - \left(\sum x\right)\left(\sum y\right)}{\sqrt{\left\{\left(N\sum x^2\right) - \left(\sum x\right)^2\right\}\left\{\left(N\sum y^2\right) - \left(\sum y\right)^2\right\}}}$$

$$R_{xy} = \frac{(32 \times 5527) - (409)(422)}{\sqrt{\{(32 \times 5383) - (409)^2\}\{(32 \times 5692) - (422)^2\}}}$$

$$R_{xy} = \frac{(176854) - (172598)}{\sqrt{\{(172256) - (167281)\}\{(182144) - 178084)\}}}$$

$$R_{xy} = \frac{4256}{\sqrt{\{(4975)(4060)\}}}$$

$$R_{xy} = \frac{4256}{\sqrt{20198500}}$$

$$R_{xy} = \frac{4256}{4494.27} = 0.95$$

Then, the result of calculation above was calculated more through the Spearman Brown Formula (Hatch and Farhady, 1982:247), it was as follow:

$$r_w = \frac{2rh}{1+rh}$$
$$r_w = \frac{2(0.95)}{1+0.95}$$
$$r_w = \frac{1.9}{1.95}$$
$$r_w = 0.97$$

Based on the calculating above, it was found out that the coefficient of reliability was (0.97). The students' score in the post-test was reliable because inter-rater reliability coefficient was higher than 0.70 (Fraenkel and Wallen, 1990:149).

4. Findings and Discussion

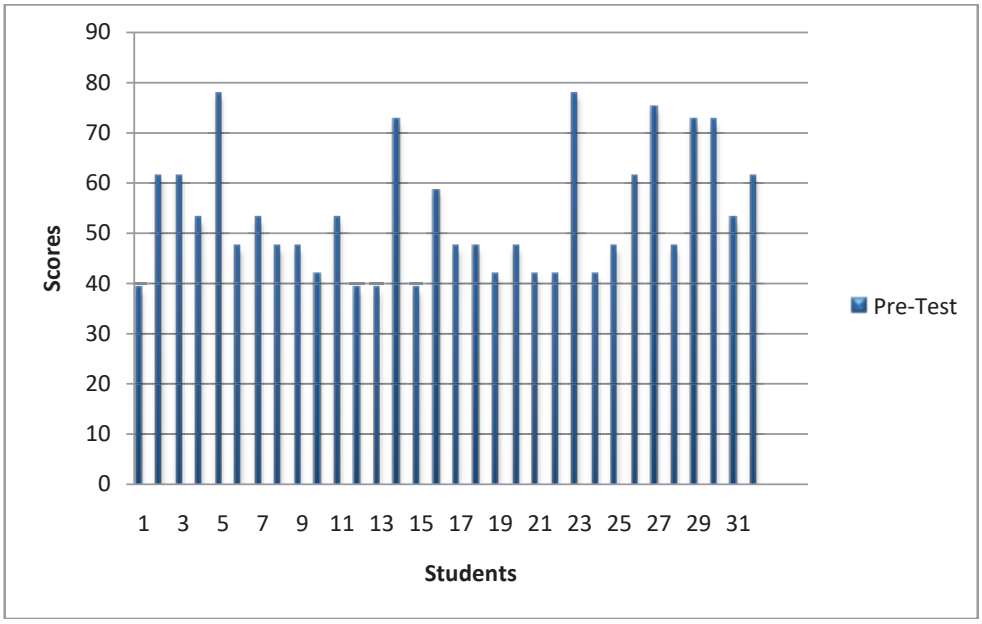
4.1 Findings

This part described the result of the test distributed to the sample students before and after treatment. There were five findings in the investigation: they were (1) the students' scores in the pre-test, (2) the students' scores post-test, (3) the comparison students' score in pre-test and post-test, (4) normality testing, (5) the result of paired t-test calculation. There were 32 students in the class XI hotel accommodation 4 as the sample to taken the pre-test and post-test as the sample. The writer got the data by giving the test.

In the research,. there were meeting for pre-rest, four meeting for treatments, and meeting for post test. The material had given to the students was speaking about the expression of handling guest. Based on the data analysis, the result in the pre-test showed that the mean score in the pre-test was 53.21 and in post-test was 72.14. It meant that the average score in post-test was higher than the students' average score in the pre-test. And then the writer also found the result of the paired t_{-test} calculation was 14.02, meanwhile the t-table was 1.697. It meant that the Ha was accepted and Ho was rejected. So, it could be said that curiosity box strategy was effective to be used in teaching speaking to vocationala level students at Vocational High School Number 2 Lubuklinggau.

4.1.1 The Students' Score in Pre-test

The pre-test was given before the treatment. The number of students who took the part in the pre-test was 32 students. The test consisted of 1 item for 2 student's partner in the form of oral test. The writer scored the students' speaking performance based on individual score. After the scores had been tabulated, based on the students qualification, the writer found out that the highest score was 77.78 which achieved by 2 students, and the lowest score was 38.89 which was reached by 4 students. The average of students score in the pre-test was 53.21.



Graph 1.
The Result of Pre-Test

After the student's scores were tabulated and based on the students minimum mastery criteria. The writer found that the students who got fail category were 26 students. The students who got pass category were 6 students. Based on the students' score in the pre-test and it was showed in the chart below:

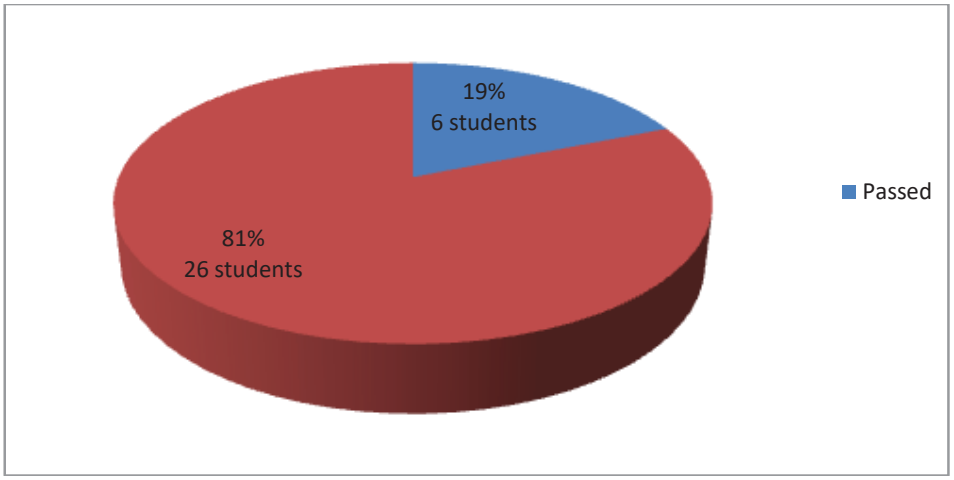
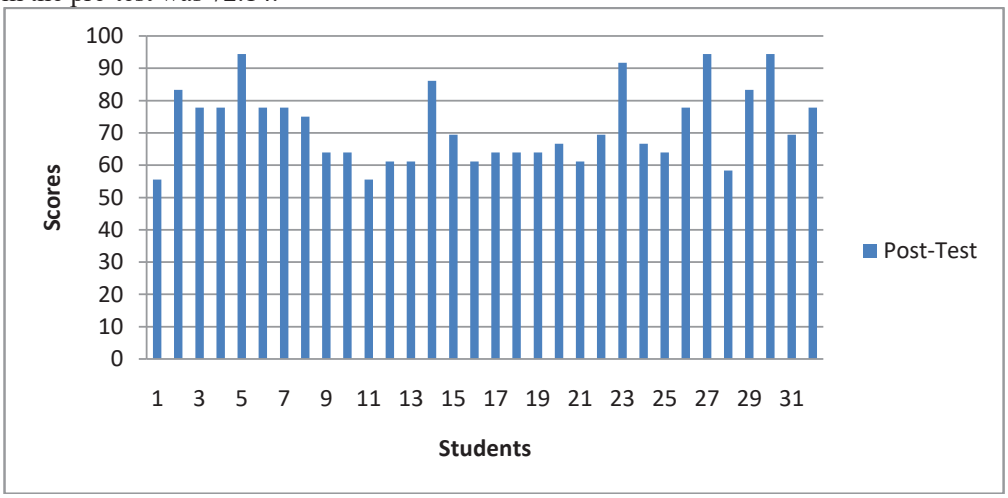


Chart 3.
The Percentages of the Students' Speaking Score in the Pre- test

4.1.2 The Students' Score in Post-test

The post-test was given after the treatment. The number of students who took the part in the post-test was 32 students. The test consisted of 1 item for 2 student's couple in the form of oral test with theme handling guest in the Restaurant. The writer scored the students' speaking performance based on individual score namely accuracy, fluency and comprehensibility. After the scores had been tabulated, based on the students qualification, the writer found out that the highest score was 94.44 which achieved

by 3 students, and the lowest score was 55.56 which was reached by 2 students. The average of students score in the pre-test was 72.14.



Graph 2.
The Result of Post-Test

After the students score were tabulated and based on the students minimum mastery criteria. The writer found that the students who got fail category were 18 students. The students who got pass category were 14 students. Based on the students'' score in the post-test and it was showed in the chart below:

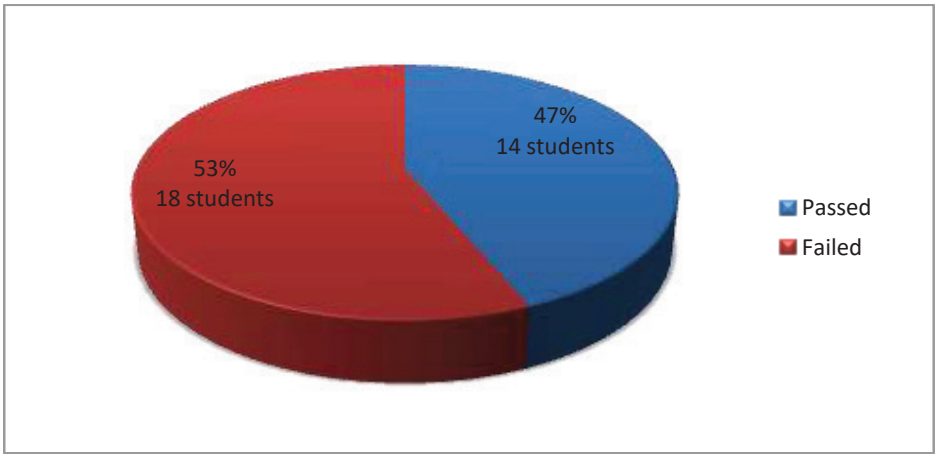
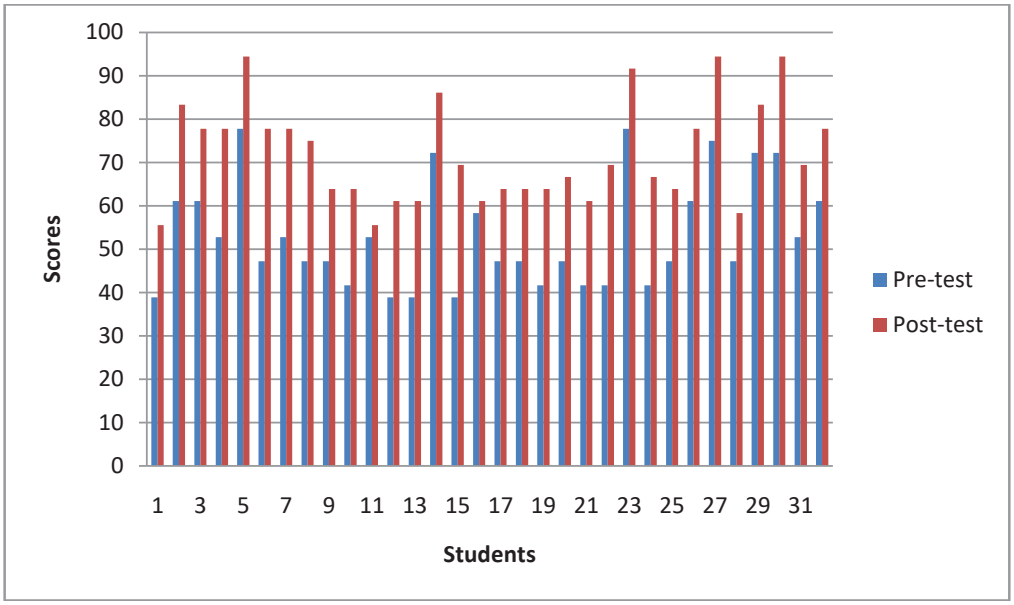


Chart 4.
The Percentages of the Students' Speaking Score in the Post-test

4.1.3 The Comparison Between the Students' Scores in the Pre-test and Post-test

After giving treatment by using Curiosity Box Strategy, the students' scores in English were better. It can be seen from the difference between the students' mean score obtained in the pre-test and that in the post-test. In the pre-test the students' average score was 53.21 and the students' average score in the post-test was 72.14. It showed that there was significant difference between the average score in the pre-test and the one in the post-test. It means that the students' average in the post-test was higher than the students' average score in the pre-test.

The comparison of the students' score in the pre and post test can be seen in the following:



Graph 3.
The Comparison of Student's Pre-test and Post-test Scores

4.1.4 Normality Testing

The normality of the data was often tested in inferential statistics analysis for one until more than one sample group. It is assumed that the normality of the data become a requisite to determine what kinds of statistics will be used in analyzing the next data.

The investigation of the interval consistency normal is estimated by Subana, 2005:149. The following is the Subana formula (Chi Square):

$$\chi^2 = \sum \frac{(Oi-Ei)^2}{Ei}$$

Where:
Oi = the Observation Frequency
Ei = the Expertise Frequency

4.1.4.1 Pre-Test

Before calculating the normality, the writer found that the highest score was 77.78 who were gotten by 2 students, and the lowest score was 38.89 who were gotten by 4 students.

Based on the calculation of normality in the pre-test at appendix B, the writer found out that $\chi^2_{obtained} =$ 7.9 with degree of freedom (df) = 5 (6-1). Since level is 95% (0.05), and the $\chi^2_{table} =$ 11.07. The data was normal, because $\chi^2_{obtained} \leq \chi^2_{table}$. Afterwards, the writer also would like to show the students' data of the post-test in speaking score.

4.1.4.2 Post-Test

Before calculating the normality, the writer found that the highest score was 94.45 who were gotten by 3 students, and the lowest score was 55.56 who were gotten by 2 students.

Based on the calculation of normality in the post-test in appendix C, the writer found out that $\chi^2_{obtained} =$ 8.72 with degree of freedom (df) = 5 (6-1). Since level is 95% (0.05), and the $\chi^2_{table} =$ 11.07. The data was normal, because $\chi^2_{obtained} \leq \chi^2_{table}$.

4.1.5 The Result of the Paired t-test Calculation

Based on student's score obtained both in the pre-test and those in the post-test. The writer calculated the paired t-test to find out whether or not it was significantly effective to apply curiosity box

strategy in teaching speaking to vocational level students at Vocational High School Number 2 Lubuklinggau.

The students who joined both of the pre-test and post-test was 32 students. Based on the table (appendix B), it was found that the students (N) was 32 and the writer difference between the score of the pre-test and post-test ($\sum^{D}$) was 605.55, the score in quadrate ($\sum D^2$) was 12809.83, ($\sum x_2$) was 1702.78, ($\sum x_1$) was 2308.33, ($\overline{X_1}$) was 72.14, ($\overline{X_2}$) was 53.21.

Before finding out $t\text{-}_{obtained,}$ the standard deviation (SD) must be calculated first. The result of SD was 7.64. After getting the standard deviation (SD), the writer calculated standard error of difference ($\overline{SD}$). The value of $\overline{SD}$ was 1.35. Finally, after the writer had calculated the standard deviation (SD) and standard error of difference($\overline{SD}$), she did the paired T-test calculation. The value of $t\text{-}_{obtained}$ was 14.02.

Since the significance level was 95% (0.05) for one-tailed testing with degree freedom (df) 31 (32-1), the value of $t\text{-}_{table}$ is 1.697. It could be seen that the $t\text{-}_{obtained}$ (14.02) was higher than $t\text{-}_{table}$ is (1.697). It means that the alternative hypothesis (Ha) was accepted and the null hypothesis (Ho) was rejected.

4.2 Discussion

Based on the findings above, the writer gave interpretation toward the finding after doing the experiment in teaching speaking by using curiosity box strategy, the pre-test and post-test showed that there was a significantly different between the students' score before and after the treatment.

Based on the test, before treatment the students' average score in the pre-test was 53.21. The highest score was 77.78, achieved by two students and lowest score was 38.89 achieved by four students. Based on the students' average score it can be interpreted that their ability in the speaking skill was in category of "failed" qualification. Before the students got the treatment, the writer found that were 26 students who were in"failed" criteria and there were 6 students who were in passed" criteria. In the pre-test, the students still did some errors in accuracy, fluency, and comprehensibility. Since they did not know how to speak English well such as, they still used ungrammatical; the students were not fast pronunciation because their dialect still involve. The last problem was the students had limited vocabulary. Therefore, the students should learn some many words and memorized the words that suited to the context.

Based on the problems and the students' speaking score above, the writer had to apply a better treatment. In this case, the writer should teach speaking by using curiosity box strategy. Those treatments were conducted four meetings, the writer did the treatment since it was necessary to made the students' achievement in speaking became increased. Treatment was done to the experiment class in order to improve teaching speaking on certain area.

The first treatment, the writer began her treatment from giving explanation about handling guest in the hotel: the definitions of handling guest and expression of handling guest in the hotel, the writer gave dialog conversation handling guest there are as receptionist and as guest, the writer divided students in pair, each pair taken situation in the box, the writer asked students make short conversation about handling guest in the hotel with their pair only in five minutes. After the students made short conversation, the writer asked students practice their conversation in front of class. The first until the fourth treatment was same the material about handling guest and still with their pair but in the second treatment learned about handling guest in the restaurant, the third treatment learned about handling guest in the office and the four treatment learned about handling guest in the shop.

Having done experiment, the writer administered the post-test. The mean score in the post-test was 72.24, the highest score was 94.44 achieved by three students, and lowest score was 55.56 achieved by two students. It can be interpreted that their ability got improvement. It means that there was any increasing in their average score, where the students' score in the post-test was higher than student's scores in the pre-test. After the students used curiosity box strategy, the students had very high motivation in researching English. It can be seen from the fact that the students appeared to be very interested, enthusiastic, and were challenged in learning.

In addition, in this research, the students' could practice with their friend how to handling guest well when they meet guest in the hotel or restaurant. In other words, students would speak English well

if they are brave to say some words in English, practice their English to whom they can practice such their teacher of English or even foreigner who come from English speaking countries. Then, they could be good speakers in English. It means that the treatment by using curiosity box strategy could help the students in speaking skill. It can be seen that the students' average score increased after the treatment.

Besides, the students' conversion in speaking mastery is also changed using curiosity box strategy. In the pre-test, there were 26 students or 81% who in the "Failed" category but there were 18 students or 53% who in the "Failed" in this post-test. There were 6 students or 19% in the "Passed" category in the pre-test but there were 14 students or 47% who in the "Passed" in the post-test. The students progress before and after the treatment was calculated based on the percentage about 30%.

The effectiveness of the Curiosity Box Strategy in teaching speaking can be proved from the result of paired t-test calculation. The coefficient of $t_{obtained}$ was 14.02. It exceeded the coefficient of "t-table" (1.697) for the significant level of 5% for df=31. Therefore, the alternative hypothesis (Ha) to teach speaking used curiosity box strategy to vocational level students was accepted and the null hypothesis (Ho) which was stated that it is not effective to teach speaking curiosity box strategy to vocational level students was rejected. So, the curiosity box strategy could develop to vocational level students' speaking mastery at Vocational High School Number 2 Lubuklinggau.

4.3 Limitation of the Research

In this research, the writer found that there were some weaknesses in teaching speaking through curiosity box strategy to vocational level students. In this case, the writer felt many weaknesses in her investigation, namely; limited time, student creativity and the technique itself, because the technique was the first time applied in teaching and learning process especially on speaking skill at Vocational High School Number 2 Lubuklinggau.

In addition, the writer focused on the weakness of teaching and learning process, especially in this investigation the writer asked the students to practice conversation in group. As a matter of fact, this technique is appropriate to be applied in English class. However, the writer found some weaknesses happened. The weaknesses were:

1. The writer did not have sufficient time to explore the student's speaking skill. Therefore, it was actually not enough to show the students' speaking mastery.
2. Some students felt afraid to perform their speaking skill because they were afraid to make mistakes and they also felt shy to explore their ideas among of their friends.
3. The writer' experience and knowledge in doing experiment was limited. Therefore, the writer got some problems and difficulties during doing experiment and did not have sufficient knowledge to solve the problem easily.

5. CONCLUSION

Based on the result of the research, the writer concluded that it was significantly effective to teach speaking by using curiosity box strategy to vocational level students. It could be proved by the result of the test and the differences between the two means of score in the pre-test and in the post-test which was calculated by using paired t-test formula. According to analysis described earlier the writer found that the alternative hypothesis (Ha) was accepted and the null hypothesis (Ho) was rejected. Since the result of the calculation of paired t-test was higher than the critical value.

It could be checked through difference between the two average scores in the pre-test (53.21) and also the post-test (72.14), these were tested through the paired t-test. From the calculation, it was found out the degree of freedom (df) is 31 (32-1) with 95% significance level for one tailed test and the t-critical value in the table score (1.697). It could be known that the result of the paired t-test was completely higher than the critical value in the table (1.697). So, the null hypothesis (Ho) was rejected and the alternative hypothesis (Ha) was accepted since the result of paired t-test was 14.02. Furthermore, the writer concluded that it was effective in teaching speaking by using curiosity box strategy to vocational level students at Vocational High School Number 2 Lubuklinggau.

BIBLIOGRAPHY

Arikunto, S. (2010). *Prosedur Penelitian Suatu Pedekatan Praktik*. Jakarta: Rineka Cipta
Astanniah. (2009). *Concept of Speaking*. Retrieved from http://jufry2u.blogspot.com/2012/03/concept-of-speaking-usingdyned.html
Brassell, J. (2011). *Multisensory Language Instruction: Guidelines and Activities*. Retrieved from http://www.Idonline.org/article
Brown, H. D. (2001). *Teaching by Principles: An Interactive approach to Language Pedagogy, (*2nd ed*)*. New York: Longman.
Coultas, V. (2002). *Second Language Learning in Children: A Model of Language Learning in Social Content*. New York: Cambridge University Press.
Dalton, S.S. (2008). *How to Succeed with All Learning: Five Standards for Effective Teaching.* America: Jossey Bass Press.
Fraenkel, J. R., & Wallen, N. E. (1990). *How to Design and Evaluate Research in Education,* (2nd ed*).* New York: McGraw-Hill Inc.
Greer, R.D. (2002). *Designing Teaching Strategies*. New York: Academic Press.
Hatch, E.H., & Farhady, H. (1982). *Research Design Statistic for Applied Linguistics.*Cambridge: Newbury House Publisher.
Heaton, J. B. (1989). *Writing English Language Test.* New York: NY. Longman Group. UK Limited.
IKAPI. (2015). *Zamrud SMK/MAK: Pegangan Guru*. Surakarta: Putra Nugraha.
Isaac, S., & Michael, W. B. (1985). *Handbook in Research and Evaluation*. San Diego, California: EDITS Publisher.
Kayi, H. (2006). *Teaching Speaking: Activities to Promote Speaking in a Second Language*. Retrieved from http://iteslj.org/techniques/kayi-teachingspeaking.html.
Kothari, C. R. (2004). *Research Methodology: Method and Techniques.* New Delhi: New Age International (P).
Latief, M. A. (2014). *Research Methods on Language Learning: An Introduction.* Malang: UM Press.
Nunan, D. (2003). *Practical English Language Teaching*.New York: MC Grow Hill Companies.
Subana, M., & Sudrajat. (2001). *Dasar-dasar Penelitian*. Bandung: Pustaka Setia.
Tarigan, H. G. (1985). *Berbicara Sebagai Suatu Keterampilan Berbahasa*. Bandung: Angkasa.
Turk, C. (2003). *Effective Speaking: Communicating in Speech.* French: Spon-Press.