CHAPTER III
METHODOLOGY OF THE RESEARCH

3.1 Introduction

Chapter II has discussed the literature related to this study. This chapter provides a detailed description of the methodology of this study, including research design, research site and participants, data collection techniques, data analysis, hypothesis, and concluding remarks.

3.2 Research Design

Corresponding to the purposes of the study and research questions stated in Chapter II, this study employed a quantitative study with the use of experimental research design. Specifically, this study employed quasi experimental in which the participants were categorized into two, including experimental and control groups (Hatch & Lazarraton, 1991).

Quasi experimental design was chosen for two reasons. First, the participants in this study were not selected randomly as suggested in true experimental design. Second, quasi experimental design had a control group which allowed the researcher to make a comparison (Emilia, 2000, p. 2-3), which is one of the characteristics of well-designed experiments. Third, pre-test in the quasi experimental design could be used to detect similarities between the experimental and control groups before treatment was given. Meanwhile, the post test was used to conclude whether or not the treatment affected the participants.

The research design has several characteristics as follows: (1) it has two groups of subjects, namely the experimental and control groups; (2) the two groups are compared with respect to measurement or observation on the dependent variable; (3) both group are measured twice; the first measurement serves as the pre-test and the second one is as the post-test; (4) the measurement on the dependent variable for both groups are conducted at the same time with the

same test; (5) the experimental group is manipulated with particular treatment (Nunan (1992); Cresswell (2008) as quoted by Kusnadi (2009, p. 36).

3.3   Research Site and Participants

This study took place at one vocational high school in Pangkalpinang, Bangka Belitung. The research site was chosen because it is accessible since the researcher is one of the English teachers in this site. In this regard, the researcher knows that Communicative Language Teaching (CLT) has not been applied, especially in teaching speaking this site.

The population of this study was the second grade accountant students at one vocational school high school in Pangkalpinang. As defined by Kaufman & Kaufman (2005, p. 18), population is all of the individuals of interest to the researcher. It is a group to whom the results of the study are generalized (Fraenkel & Wallen, 2012, p. 91).

A sample is a group of representative of the population in research study which information is obtained (Kaufman & Kaufman, 2005, p. 18; Cohen, Manion & Morrison, 2007, p. 100; Fraenkel & Wallen, 2012, p. 91). This study employed a cluster sampling technique which is a procedure of selection in which the population members were the unit of selection. Cluster sampling is useful in situations where the population members are naturally group in unit that can be used conveniently as a cluster (Cohen, Manion & Morrison, 2007, p. 112; Wiersma & Jurs, 2009, p. 335). This is the characteristic of the cluster sampling technique in which groups were randomly selected as sample. Cluster random sampling permits the selection of groups, or clusters, of subjects rather than individuals. It is often easier to employ this sampling technique in this school because it is frequently less time consuming (Fraenkel & Wallen, 2012, p. 96).

In this study, two out of three classes of accountant majors were randomly selected to be the sample. In this study, the samples were AK2 and AK3 classes. They were categorized into two: control and experimental groups. AK2 consisting of 29 students were categorized as the control group while AK3 consisting of 31

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students were categorized as the experimental group. These two groups of the students were considered as homogeneous as they had similar scores, particularly in speaking skill. In this regard, one group which was the experimental group (AK3) received the treatment while the other did not (see Hatch and Farhady, 1982, p. 22 and Fraenkle & Wallen, 2007, p. 273).

Before and after the treatment, both groups got the speaking test. In the treatment activity, the experimental group was taught by using the Communicative Language Teaching (CLT) method while the control group was taught by applying Audio Lingual Method (ALM).

The treatment was carried out in six meetings. Each lasted for 90 minutes. The materials were prepared based on the topics in the syllabus: expression describing process of work and function of equipments, asking and giving suggestion and advice, necessity and obligation, convincing and persuading to accept opinion or propose presented correctly.

After completing the treatment, post test was given to both the experimental and control groups. The design of this study is as follow:

E T1 X T2

——————————————

C T1 X T2

(Hatch & Lazarraton, 1991)

Explanation :

E : Experimental group

T1 : Pre -Test

X : Experimental Treatment (Teaching Speaking Using Communicative

   Language Teaching)

C : Control Group

T2 : Post Test

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There are three sources of data in this study, including the teacher, normality tests, and t-tests. The first way was obtained from the teacher. As informed by Hatch and Farhady (1982, p 40), traditionally in obtaining data by the judgment from someone who should know to serve as a judge. In this case, the English teacher deserved to be a judge in giving the mark to the students. From the teacher, the researcher knows that class (AK 2) obtained 66.10 while the other class (AK 3) got 65.74.

Second, the data were obtained from the result of normality test (see Table 3.1, Table 3.2, and Table 3.3).

Table 3.1

Normality Test of the Pre Tests of the Control and Experimental Group

	Shapiro-wilk	
	df	Sig.
Pretest control	29	.133
Pretest experimental	29	.058

Through the normality test, it was shown that AK 2 and AK3 had the same pre test ability in speaking skill. The normality test showed that pre test for the control group significant was 0.133. Meanwhile, pre test of experiment was 0.58. The data describes that both of the significant were above of 0.05. It means that the data are normally distributed.

Table 3.2

Group Statistics of Pre Tests Control and Experimental Group

	Group	N	Mean	Std. Deviation
Pretest	Control	29	73.69	3.434
Score	Experimental	31	73.71	3.258

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Another test to make sure that the sample was normal was the t-test (see Table 3.2). The results of t-test showed that standard deviation of pre-test in AK2 as the control group was 3.434 and pre-test of the AK 3 as the experimental group was 3.258. Both of the standard deviations were higher than 0.05. It means that the pre-test in both groups were the same.

Table 3.3

Independent Samples Test of Pre Tests of the Control and Experimental Groups

		Levene's Test for Equality of Variances		t-test for Equality of Means			
		F	Sig.	T	df	Sig. (2-tailed)	Mean Difference
Pretest Score	Equal variances assumed	.106	.746	-.023	58	.982	-.020
	Equal variances not assumed			-.023	57.171	.982	-.020

It was also strengthened by the independent samples test of pre tests control and experimental groups that showed that the significance was 0.746 and the significance of 2-tailed was 0.982. It can be concluded that AK2 and AK3 could be used as the sample of the research.

In this study, the experimental group (AK 3) consisted of thirty one students that consisted of five boys and twenty six girls. Meanwhile, the control group (AK 2) had twenty nine consisting of five boys and twenty four girls.

3.4   Data Collection Techniques

This sub chapter covers the instrumentation and the procedures of data collection techniques. Each of which will be discussed below.

3.4.1 Instrumentation

There were two instrumentations that were used in this research. They were speaking tests and a questionnaire. Each of which will be explained as follows:

3.4.1 Speaking tests

The first instrument was the speaking tests. They were intended to find out whether Communicative Language Teaching (CLT) was effective in improving the students' speaking ability. Moreover, speaking tests were used to validate the findings of the questionnaire regarding the students' responses to the implementation of Communicative Language Teaching in speaking class.

The first instrument was the speaking tests. It consisted of pre-test and post-test. Based on the Wikipedia, pre-test is a preliminary test administered to determine a student's baseline knowledge or preparedness for an educational experience or course of study. In this case, the pre test was carried out to identify the learners' initial ability in speaking skill. Therefore, it was given in the first meeting to find out the students' ability before they got involved in the treatment.

Post-test was basically conducted in the same way to the pre-test. It was conducted after the students get the treatment. It was used to measure how effective the treatment of teaching speaking by using Communicative Language Teaching (CLT). The post-test items were the same in both pre and post tests. It was in the form of open ended speaking test in which the students were required to have the conversation related to the procedure text and convey the expression of giving suggestion and asking someone to do something. This text was used since in SKL speaking activities required students to express interpersonal and

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transactional texts. Speaking (oral) test was used to measure the students' ability in speaking for four reasons.

First, oral testing was an important part of an overall assessment program, especially when communicative language proficiency was the goal of instruction. Test of oral performance was important to resemble authentic language use as much as possible (Hadley 2001, p. 445). Second, oral test was important to be conducted as an attempt to know the students' ability to comprehend the meaning in a variety of tasks; therefore, the students received a single score reflecting their performance (Douglas in Hughes, 2002, p. 83).

Fourth, oral tests in pairs were used in this study since the effective way of assessing a students' ability to speak was to give works in pairs or groups. Working in pairs, students can describe their own ability in create the dialogue (Heaton, 1995, p. 95). Pair tasks have many advantages. However, they are also challenges. The examinees' talk is almost inevitably influenced by the other participant's personality, communication style, and language level. Therefore, there is a possibility that all test takers may not get an equal opportunity to show their speaking skills at their best (Weir, 1993, p. 55-56; Iwashita, 1999, p. 53) in Luoma (2004, p. 37).

The speaking test that was used in this research should be valid and reliable. As stated by Sugiyono (2012, p. 169), a good instrument (whether test or non test) must be valid and reliable. By using valid and reliable instruments in collecting the data, it is highly expected that the results of the study will be valid and reliable too.

In term of validity, Hach & Farhady (1982, p. 251) explain that validity is divided into three types. The first type is content validity. It concerns with how well the test represents the content or behavior to be tested. The second type is criterion-related validity. It concerns with how well test performance predicts some future performance or estimates performance on some other valued test. The third type is construct validity. It concerns with whether or not the test

performance can describe the psychological factors related to the test performance (e.g., self-concept, anxiety).

Moreover, reliability can be defined as the extent to which a test produces consistent results when administered under similar conditions (Hach & Farhady 1982, p. 244).

3.4.2 Questionnaires

The second instrument was questionnaire which is a set of written instruments of questions on a topic or group designed to be answered by the participants (Richards et al., 1992, p. 303; Wiersma & Jurs, 2009, p. 200).

The questionnaire was intended to find out the students' responses to the implementation of Communicative Language Teaching (CLT) in teaching speaking. Furthermore, the questionnaire was used to validate the findings of the data from the speaking tests regarding the effectiveness of the implementation of Communicative Language Teaching (CLT) in teaching speaking.

The questionnaire was distributed to thirty one students of the experimental group on April 8th 2014, at the end of teaching session. The questionnaire used four-rating scales of Likert scale. The scales were *strongly agree*, *agree*, *disagree*, and *strongly disagree*. The Likert scale was chosen for two reasons. First, the questionnaire was used as it allowed for collecting identical results that could be compared from one another (Saedi, 2002, p. 41). Second, it was efficient to be used in terms of researcher's time, effort, and cost. The results of the questionnaire were beneficial to triangulate the data from the other data collection methods.

The questionnaire consisted of 30 items (see Appendix 8 and Appendix 9) which were adapted from the principles of Communicative Language Teaching (CLT) proposed by some experts (Richard, 2006; Finocchiaro and Brumfit, 1983, p. 91-93; Nunan in Brown, 1994, p. 78; Larsen-Freeman, 2008, p. 121-125; Bern, 1990, p. 104; Savignon, 2002, p. 6).

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To avoid the students' misunderstanding and to achieve the validity of the questionnaire, it was given in *Bahasa Indonesia* with clear instructions and distributed to five students who were not the sample of this study. As stated by Bell (2005, p. 138), words which have common meaning to someone may mean something different to other people. As a result, all of the items in the questionnaire were understandable by the participants in this study.

3.4.2 Procedure

The study was conducted in two stages. Firstly, the treatments were given to the two groups of the students. The materials for the treatment were based on the guidance of Developing School Based Curriculum 2006 issued by curriculum center of ministry of National Education Indonesia.

The treatment had been done in three weeks or six meetings. The materials for six meetings were telling procedures, giving suggestion/advice, and imperative sentences**.** The materials represented the introduction to a lesson by showing the slide that describe about the competence standards, basic competence, learning indicators, learning objectives and topic on that day. Moreover, the goal of the treatments required the creation of a "realistic situation" requiring the target language to be learned. This can be achieved through using pictures, dialog, imagination or actual classroom situation.

Secondly, after the treatments were provided, the speaking tests were given to both the control and experimental groups. There were four steps in this stage. The first step was constructing the test items. It was made by the researcher herself based on the material attached on the syllabus and curriculum. The second step was piloting the questionnaire to five students out of the control and experimental groups. As stated in Section 3.4.1, the questionnaire was piloted as an attempt to avoid the students' misunderstanding and to achieve the validity of the questionnaire.

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The third step was conducting the oral pre and post-tests to both the control and experimental groups in which the students were required to perform dialogues in pairs regarding the procedure text, particularly how to make something and how things work. The pre-test was conducted on March 6th 2014. And the post-test was conducted on April 7th 2014.

The fourth step was assessing the students' speaking ability. It was assessed by three raters consisting of two English teachers at the research site and the researcher herself. The scoring process in the test depended on inter-raters. Inter-rater reliability is used to determine the agreement between different judges or raters when they are observing or evaluating the performance of others (Kaufman &Kaufman, 2005, p. 105). In this research, inter-rater reliability occurred when two or more scorers yielded the consistent scores of the same test (Brown & Abeywickrama, 2010, p. 28). Mackey and Gass (2005, p. 129) add that inter-rater reliability begin with a well-defined construct. It is a measure of whether two or more raters judge the same set of data in the same way. If there is strong reliability, it can be implied that the raters are judging the same set of data as representing the same phenomenon.

When scoring the students' performances, the rater should concentrate on what individual students are doing with the target language and how they are using it to achieve their purpose. Language errors which interfered the successful communication will, thus, be penalized. On contrary, the minor errors which, though annoying in certain respects, do not seem to impede communication to any degree will not be penalized in the same way (Heaton 1995, p. 95) The assessment was based on oral speaking component as suggested by Hardley (2001, p. 445) (see Section 3.5.1).

Thirdly, after conducting the speaking tests, the questionnaire was distributed to the students in the experimental group. There were three steps in this stage. The first step was constructing the questionnaire items. The questionnaire items were constructed based on the principles of Communicative

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Language Teaching proposed by some experts (Richard, 2006; Finocchiaro and Brumfit, 1983, p. 91-93; Nunan in Brown, 1994, p. 78; Larsen-freeman, 2008, p. 121-125; Bern, 1990, p. 104; Savignon, 2002, p. 6).

The second step was trying out the questionnaire. The questionnaire was given to five students out of the experimental and control groups. The try out was intended to know whether the questionnaire items were understood by the students. The try out revealed that all of the items in the questionnaire were understandable for the participants in this study.

The third step was distributing the questionnaire to the experimental group. It was given to thirty one students at the end of the teaching program. The general procedure of conducting this study can be seen in Table 3.4 below.

Table 3.4

Research Procedure

Day /Date	Activity	Note
Wednesday **5 – 3 – 2014**	Came to school and gave the permitting letter to have research in vocational high school No 1 Pangkalpinang	
Thursday **6 – 3 – 2014**	Pre-test control and experiment groups	
Wednesday **19- 3- 2014**	Teaching and learning process	Treatment I
Thursday **20 – 3 – 2014**	Teaching and learning process	Treatment II
Friday	Teaching and learning process	Treatment III

21 -3 – 2014		
Wednesday **2 -4- 2014**	Teaching and learning process	Treatment IV
Thursday **3 – 4 – 2014**	Teaching and learning process	Treatment V
Friday **4 – 3 – 2014**	Teaching and learning process	Treatment VI
Thursday **7 – 4 – 2014**	Posttest of the control and experiment groups	
Monday **8 – 4 – 2014**	Giving Questionnaire to the experimental group	

3.5   Data Analysis Technique

As stated in section 3.4.1, the data were collected from tests and questionnaires. Thus, the analysis of the data was divided into two: the analysis of the data from the speaking tests and the analysis of the data from the questionnaire. Each of which will be discussed below.

3.5.1   Speaking Test (pre-test, post-test)

As mentioned in Section 3.4.1, the speaking test was divided into two: pretest and posttest. The analysis of the tests was based on the four components of speaking skill suggested by Hadley (2001, p. 445). These include accuracy, fluency, vocabulary, and pronunciation. Each of which will be described below.

Accuracy

The scoring rubric to assess the students' accuracy can be seen as follows:

5: show exceptional control of required grammar concepts and correctness in variety of contexts.

4: make some grammar mistakes that do not affect meaning

3: make more serious mistakes that often give unintended meaning, although generally adequate

2: meaning generally obscured by grammar mistakes: very poor control of a wide range of concepts.

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1: meaning completely obscured by grammar mistakes; totally inadequate control.

Fluency

The scoring rubric to assess the students' fluency can be seen as follows:

5: normal, "thoughtful" delay in formulation of thought into speech; language flows; extended discourse.

4: take longer than necessary to organize thought; says more than required.

3: speech somewhat disjointed because of pauses; language very halting.

2: painful pauses make speech hard to follow; say less than required.

1: speech totally disjointed; long pauses interrupt flow of thought and meaning.

Vocabulary

The scoring rubric to assess the students' vocabulary can be seen as follows:

5: very conversant with vocabulary required by given context(s); excellent control and resourcefulness

4: vocabulary mistake generally do not affect meaning (wrong gender, wrong preposition ,etc); attempts at resourcefulness.

3: adequate, although more serious mistakes give unintended meaning (wrong preposition, incorrect word choice, mangled word, etc).

2: meaning frequently obscured by minimal/ inadequate mastery of vocabulary.

1: meaning totally obscured, inadequate vocabulary

Pronunciation

The scoring rubric to assess the students' pronunciation can be seen as follows:

5: correct pronunciation and intonation, very few mistakes, almost native-like

4: some mispronunciation, meaning still clear

3: pronounce foreign accent requiring extra-sympathetic listening; comprehensible

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2: meaning frequently; obscured by poor pronunciation minimally comprehensible

1: no effort at all and sound often incomprehensible

In this regard, it is determined that the highest grade was 100 and the lowest one was 0. The real score comes from mean of the total score times 20. After getting the score, the data would be analyzed by using IBM SPSS Statistics Version 16.

There are two kinds of t-test of the SPSS used in this research. They are independent t-test and pair t-test. Independent t-test used to compare the progress of students score in the control group and experimental group. Meanwhile, the pair t-test was used to compare pre-test and post-test of the same group.

There are some terms in the out put SPSS. First is mean score. Mean score is the average of the score measurement. N is the sample number. Result of standard deviation indicated the range of the highest achiever and the lower achiever. The requirements of the use parametric test are the distribution have to be normal, or it has more than 30 subjects. Unequal-variance t- test use for the not homogeny data. Levene's test used to see the homogeneity. If $p > 0.05$ so it can be said that the data is equal/ homogeny. If the data is homogeny, so read the left side (equal variance assumed). If the data is not homogeny, so read the right side (equal variance not assumed). Widhiarso (n.d.)

The followings are the rules of sig. (2-tailed) of t-test; when sig. (2-tailed) $\leq .05$, there is a difference between the two mean score in 5% significance, when sig. (2-tailed) $\leq .01$, there is a difference between the two mean score in 1% significance, and when Sig. (2-tailed) $> .05$, there is no difference between the two mean score (Widhiarso, n.d.)

Levene test homogeneity is the test to see the different variant in the data. when sig. value is $> .05$, the data are homogeneous and the equal variances assumed raw was used. However, when sig. value was $< .05$, the data were not

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homogeneous and the equal variances not assumed raw is used (Widhiarso, n.d.; Tyrrell, 2009, p. 80)**.**

3.5.2   Questionnaires

The questionnaire was used to find out the students' responses to the use of Communicative Language Teaching in speaking class as a strengthening the answer of the first research question. In this research, the questionnaire used here was four-scale of Likert-scale. They were strongly Agree (4), Agree (3), Disagree (2) and Strongly Disagree (1).

The results of the questionnaire were calculated statistically and interpreted in chapter IV.

3.6   Hypothesis

There are two hypothesizes that proposed in this thesis:

Ho (null hypothesis): There is no different effect in the use of Audio Lingual Method in the control group and Communicative Language Teaching in the experimental group on the students' speaking ability

H1 (alternative hypothesis): There is a different effect in the use of Audio Lingual Method in the control group and Communicative Language Teaching in the experimental group on the students' speaking ability

3.7   Concluding Remarks

This chapter has discussed the methodology of the research. It included research design, research site and participant, data collection techniques, data analysis techniques, and hypothesis. Chapter IV will elaborate the findings and discussion of this study.

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