

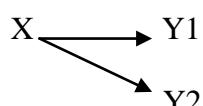
III. RESEARCH METHOD

Based on the objective and the theories in the previous, this chapter discusses several points related to the research, i.e., (1) research design, (2) research procedure, (3) population and sample, (4) research instruments, (5) validity of the instruments, (6) reliability of the instruments, (7) data collection procedures, (8) and data analysis.

3.1 Research Design

This was a quantitative non experimental research. Which the purposes were to describe current existing characteristics such as achievement, attitudes, relationship, In this occasion the writer used descriptive types of quantitative non experimental as research design.

With Design:



Where X = Reading Strategies

Y1 = reading achievement Bahasa Indonesia

Y2 = reading achievement in English

The study was based on a survey research conducted for the purpose of making descriptive assertions about some population. This study was aimed at finding out the learning strategies, and to investigate the relationship between the students' achievement and language learning strategies of pre-intermediate

students by using purposive random sampling from SMAN 1 Terbanggi Besar, Central Lampung. The data were collected through questionnaires, one of which was aimed to identify students' learning strategies and to find out what strategies students seemed to prefer.

3.2 Research Procedure

The research was conducted during normal class hour. The writer followed the following procedure in conducting the research

1. Determining the population and select the subject.
2. Conducting the pre-test items reading
3. Giving the questionnaire
4. Conducting reading test items
5. Analyzing the data.
6. Analyzing the correlation and additional information
7. Making conclusion.

3.3 Population and Sample

The data sources in this study were the students studying English at the Third year of Foreign Language of senior high school in Lampung Tengah. SMAN 1 Terbanggi Besar. There were nine classes of third year students'. Not all of the pre-intermediate level students took part in the study. A purposive random sampling technique was used to choose the class as sample. The class was XII IPA1 and XII IPS 4.

3.4. Research Instrument

In collecting data, the researcher use some instrument, they are:

3.4.1 Questionnaire

Questionnaire was distributed to the students to find what types of strategies that they might employ in learning English. The researcher adapted the questionnaire from Language Learning Strategy Questionnaire (LLSQ) that provided with 20 items in each skill-based category (speaking, listening, reading and writing) Setiyadi (2006). In this research LLSQ was used and transferred from English language to Indonesian language. Some items of the LLSQ have been taken from previous researcher and have been newly developed by Setiyadi (for detail information, see Setiyadi: 1999)

Each category consists of 3 groups of strategies, namely: cognitive strategies, Metacognitive strategies, and social strategies. Cognitive strategies in reading are measured with items nos. 1-11; Metacognitive strategies are measured with items nos. 12-17, and social strategies with items nos.18-20.

COGNITIVE STRATEGIES	
1	Untuk memahami kata kata asing ketika membaca saya menebak melalui petunjuk yang ada
2	Saya belajar bahasa Inggris dengan membaca buku bahasa Inggris atau majalah
3	Saya menghubungkan ejaan bahasa Inggris dengan ejaan indonesia yang mirip untuk memahami maknanya
4	Saya mencoba untuk memahami kalimat dengan menganalisis pola kalimatnya
5	Saya mencoba untuk menerjemahkan kata demi kata
6	Saya mencoba untuk memahami bacaan dengan menggunakan pengetahuan umum dan pengalaman saya.
7	Saya menggunakan kata-kata kunci untuk memahami ide-ide keseluruhan.
8	Saya membaca teks secara nyaring

9	Saya membuat catatan kecil untuk memahami ide bacaan
10	Ketika saya membaca teks saya mengantisipasi alur cerita
11	Saya mengulang - ulang membaca untuk memahami makna daripada kata –kata yang tersedia
	META-COGNITIVE STRATEGIES
12	Saya memperbaiki kesalahan saya dengan membaca kembali beberapa text.
13	Saya memilih topik atau bahan tertentu untuk saya praktikan.
14	Saya memeriksa dan memeriksa kembali pemahaman saya setelah membaca sebuah bacaan
15	Jika saya tidak bisa memahami sebuah bacaan, saya mencoba untuk menganalisis apa kesulitan yang benar-benar saya miliki
16	Dalam membaca, saya memilih kata kunci dan mengulang untuk saya sendiri
17	Saya mencoba untuk menyadari mana kata-kata atau aturan tata bahasa yang memberi saya masalah terbesar. Dengan cara ini saya dapat memberikan perhatian khusus pada masalah ini ketika saya sedang membaca dan berlatih
	SOCIAL STRATEGIES
18	Saya mendiskusikan makna bacaan dengan teman – teman saya
19	Jika saya tidak mengerti isi dari pesan yang saya baca, saya menanyakannya dengan teman saya atau guru untuk member bantuan
20	Saya meningkatkan keterampilan membaca saya dengan membaca surat-surat dari teman-teman saya

In total, the questionnaire consists of 20 items for the reading skills. Following the format introduced by Oxford (1990 and 1990b), which has been used to measure Indonesians' learning strategies by David and Abas (cited in Oxford, 1996), the responses *always* got the highest score (4) and those of *never* got the lowest score

(1). In the questionnaire student are given instructions; students are asked to write their response to the statements in the LLSQ.

The students are expected to give their response by choosing one from; *(1) never or almost never true of them, (2) usually not true of them, (3) somewhat true of them (4) usually true of them, (5) always or almost always true of me*. That tells how true of their statements is. (See the appendix 1)

3.4.2. Reading Comprehension Test

The researcher was used objective test which consists of 20 items of multiple choices of comprehension questions and some reading texts. The question had four alternative answers for each (A, B, C and D), one was correct answer and the rest were distracters.

3.5 Data Analysis

This study was aimed at identifying students' language learning strategies and their first language achievement in order to determine whether there is a relationship between them. Another aims of this study was to find out whether students were really making use of the language learning strategies they seem to prefer in the LLSQ. A third aim of the study was to identify whether there were achievement differences in the preferences of first language and language learning strategies. The statistical analyses were conducted by using the statistical package for social sciences (SPSS). In this research, the writer measure the correlation between two variables.

Descriptive statistics were used to rank order the strategy categories from the most preferred to the least preferred category. In order to reveal whether there was a significant relationship between the learning achievement in L1 and the language learning strategies the Pearson correlation.

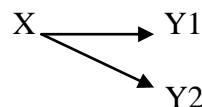
In this research, the writer measure the correlation between two variables.

a. Independent variables (x)

Language learning strategies is classified to independent variables because it is assumed that reading strategies of the students has an influence toward their reading comprehension.

b. Dependent Variable (Y)

Reading comprehension is classified as dependent variable because it is assumed that reading comprehension is influenced by reading strategies.



Where X = Reading Strategies

Y1 = reading achievement Bahasa Indonesia

Y2 = reading achievement in English

Scores of X variable shows the students' reading strategies and it has an ordinal scale. While scores of Y shows the students reading comprehension and it has an interval scale.

3.6 Validity of the Instrument

Validity refers to the extent to which the test measures what is intended to measure. This means that it relates directly to the purpose of the test (Shohamy, 1985:74). There are four types of validity, namely face validity, content validity,

construct validity, and empirical validity or criterion-related validity. Face validity only concerns with the layout of the test while the criterion-related validity is concerned with measuring the success in the future, as in replacement test (Hatch and Farhady (1982:251). There are two instruments in this research. The questionnaire and reading achievement test. The explanation the validity of the instruments of this research as follows:

a. Validity of LLSQ

Content validity refers to the extent to which an empirical measurement reflects specific domain of content (Carmines & Zeller, 1979: 20). As Nunnally (1978: 92) states if a measure is agreed by most potential users, or at least persons in positions of responsibility, it has a high degree of content validity. The content validity of the LLSQ was partly determined by professional judgment. Setiyadi (2011: 41) five language teaching experts matched the LLSQ items, with agreement at 94 %, against entries in three language learning categories.

Construct validity concerns how well a theoretical construct is measured (Oxford & Burry-Stock, 1995: 8). One of the ways to access construct validity is to determine whether or not a supposed measure of a construct correlates in expected ways with measure of other constructs or is affected in expected ways by particular experimental treatments (Nunnally, 1978: 98). With regard to construct validity, a relevant analysis of variance (ANOVA) was conducted by Setiyadi.

Criterion-related validity involves estimating some important form of behavior that is external to the measuring instrument itself (Nunnally, 1978: 87). The validity of individual predictor instrument and combinations of predictor

instrument is determined by co relational analysis and extensions of correlation analysis to multivariate analysis (Nunnally, 1978: 90). The criterion-related validity of LLSQ was determined by measuring predictive relationship between the use of the LLSQ and language performance. The finding provides evidence that in multiple regression analysis, the three categories are statistically significant predictors of language achievement for Indonesian Learners Setiyadi(2011 :43) based on the information above we can concluded that since the questionnaire had been used in this research, the validity of the test already well done by previous research which conducted by Setiyadi.

b. Achievement Test

1. Content Validity

Content validity is the extent to which the test measures a representative sample of the subject matter content. The focus of the content validity is adequacy of the sample and not simply on the appearance of the test (Hatch and Farhady, 1982: 251). To know whether the test is good reflection of what will be taught and of the knowledge which the teacher wants the students know, the researcher compares this test with previous test that already conducted by the teacher.

2. Construct Validity

Construct validity is concerned with whether the test is actually in line with the theory of learning strategies and receptive skill means. To know the test was true reflection of the theory, the researcher will examine whether the test questions actually reflected the mean of those aspect or not.

3.7 Reliability of the Instrument

a. Reliability of the questionnaire

Reliability can refer to the tendency toward consistency found in repeated measurements of the same phenomenon (Carmines & Zeller, 1979: 12). It can also refer to stability of measurements over time, an approach which was not suited to the current investigation. In assessing internal consistency, the Cronbach Alpha reliability is the most appropriate reliability index to be used on continuous data, such as that produced by Likert scale. Since the LLSQ is a questionnaire for language learning strategies that has been developed using Likert Scale, a Cronbach alpha was used to measure the internal consistency of the items of the questionnaire. The alpha ranges between 0 and 1. The higher the alpha, the more reliable the questionnaire will be (Setiyadi, 2006: 167). To examine the reliability level or questionnaire reliability the researcher will use Cronbach alpha by using SPSS computer program. , if the reliability count manually the researcher uses the following formula:

$$r = \left(\frac{n}{n-1} \right) \left(\frac{1 - \sum \sigma i^2}{\sigma i^2} \right)$$

Explanation:

r = reliability

n = the number of item

$\sum \sigma i^2$ = total variance of all items

σi^2 = the total of variance

To find the variance, we use the formula as follow:

$$\sigma^2 = \frac{\sum X^2 - \frac{(\sum X)^2}{N}}{N}$$

Explanation:

$$\sigma^2 = \text{variance}$$

$\sum X^2$ = the number of data quadrate

$(\sum X)^2$ = the number of data being quadrate

N = the number of data

According to Setiyadi (2006: 16) states reliability is consistency of instrument or how far the instruments can measure the same subject in different time. If an instrument cannot give same result in different time from same subject, it means that instrument has low reliability.

The classification of reliability is as follow:

- a. between 0.800 to 1.00 = very high reliability
- b. between 0.600 to 0.800 = high reliability
- c. between 0.400 to 0.600 = moderate reliability
- d. between 0.200 to 0.400 = low reliability
- e. between 0.00 to 0.200 = very low reliability

b. Reliability of Achievement Test

Reliability refers to the extent to which the test is consistent in its score, and it gives an indication of how accurate the test score are (Hatch and Farhady, 1982: 244). To test the reliability of the instruments, the researcher used *split-half* method in which the test readings were divided into halves. Since the formula is simple. It is because (1) it avoids troublesome correlation and (2) in addition to the number of item in the test, it involves only the test, mean and standard deviation, both of which are normally calculated anyhow as a matter of routine (Heatone, 1991: 164). To measure the coefficient of the reliability between odd

and even group, the research used the Pearson Product Moment formula as follows:

$$R_{xy} = \frac{\sum XY}{\sqrt{[\sum X^2][\sum Y^2]}}$$

Where:

R_{xy} : coefficient of reliability between the first half and the second half items

X : total numbers of odd numbers items

Y : total numbers of even numbers items

X^2 : square of X

Y^2 : square of Y

(Heatone, 1991: 164)

To know the coefficient correlation of whole items, the researcher will use

Spearman Brown's Prophecy Formula (Hatch and Farhady, 1982: 247). The

formula is as follows:

$$rk = \frac{2rl}{1 + rl}$$

Where:

rk : the reliability of the test

rl : coefficient of reliability between the first half and the second half items

(Hatch and Farhady, 1982: 247)

The criterion of reliability is:

0.90 – 1.00 : high

0.50 – 0.89 : moderate

0.0 – 0.49 : low

3.8 Data Collection Procedures

Questionnaires were completed during class time. First, the students were asked to fill in the Bahasa version of the LLSQ. To increase the credibility of the responses the language instructors were informed to remind students that they should be sincere in their answers and they should not spend too much time on any of the items. The students were also asked to give an immediate response and that they

should not hesitate and change their answers. The questionnaires were collected and the responses were entered into the computer for data analyses. They were also informed that there were no right and wrong of what they said and that the important thing was effectively reporting what was going on in their minds.