## **CHAPTER III**

### RESEARCH METHOD

This chapter explains about what design used by the researcher, research location, data and source of data, data collection techniques, research instrument and data analysis techniques.

# A. Approach and Research Design

This study is designed to describe and to show any students' word stress performance at fourth semester of speaking class English education department UIN Sunan Ampel Surabaya. Therefore, the researcher chose *Descriptive Qualitative* as the research method. Moleong states that "Qualitative research is intended to comprehend important social phenomena which is experienced by research subject such as behavior, perception, motivation, actions holistically, descriptively and naturally." The researcher chooses qualitative descriptive as the research method because this research conducted based on the problem happened to ESL learners in performing word stress on their speaking practice and it is also inclining to the case study that can be finished using the descriptive qualitative method.

<sup>&</sup>lt;sup>1</sup> Lexy John Moleong. *Metode Penilitian Qualitative, edisi revisi*, PT Remaja Rosda Karya Offset Bandung, 2009. P.6.

Besides, qualitative research seek primarily to describe a situation as it is, without formal testing or hypothesis, and it makes little or no use of numbers but rather focuses on "thick description." Mardalis added a statement that descriptive research is to describe or to get information about the current condition of certain object. It is including describing, taking notes, analyzing and interpreting the existing facts." Therefore, this study intended to describe the students' word stress performance.

## **B.** Research Location

The research took place in UIN Sunan Ampel Surabaya especially at fourth semester of speaking class English education department. Then, the researcher observed the students' word stress performance at 14 April - 29 Mei 2015.

This research location is chosen because in English education department of UIN Sunan Ampel Surabaya the students are not native speakers with kinds of different mother tongue. Deeply, those differences of mother tongue will much influence on students' accent especially for those who learn language.

## C. Data and Sources of Data

The sources of data in this study are students at fourth semester of English education department that have been mustered speaking 1, 2 and 3. In this fourth semester of speaking class there are several classes provided.

<sup>2</sup> Mardalis, *Metode Penelitian*. Jakarta Bumi Aksara. 1995,p.76

Therefore, to enhance the validity and reliability of the finding, the researcher used a *cluster sample*<sup>3</sup> as the research subjects. As stated by Mardalis "a cluster sample can be used if the research subject in the field is provided in several groups, therefore the group which contains big number of people can be chosen as the research subject because in qualitative research the more subjects taken is the better. Therefore, the researcher chooses a speaking class which has big number of students than others. Thus, the subject chosen is students at E class with 23 students.

In this research the data are students' word stress performance at fourth semester of speaking class English teacher education department. The data taken will be focused on the *primary word stress* on polysyllables words. Therefore, the researcher will not take the data that indicate sentence stress, but it will be focused only on the word stress on polysyllables (two, three and four syllables) and also will be narrowed on two kinds of words that are simple word and complex word under heading on three part of speech that are verb, noun and adjective. Therefore, the credibility of data can be guaranteed.

# **D.** Data Collection Technique

To obtain the valid data, the researcher used two kinds of data collection techniques that are observation and recording.

<sup>&</sup>lt;sup>3</sup> -----, *Metode Penelitian (suatu pendekatan proposal)*. Ed.1,Cet.4. Jakarta: Bumi aksara, 1999, p.58

## 1. Observation

It is a technique that involved systematically selecting, watching and recording behavior and characteristics of living beings, objects or phenomena. In this step of observation data collection technique, the researcher arranged some procedures they are; first, the researcher asked permission to the lecturer and students at fourth semester of speaking class. In this fourth semester of speaking class the lesson focused on is speaking for formal setting such as speech and journal analysis presentation. The presentation is conducted in pairs with one moderator and in every meeting 4-5 pair groups presented their journal analysis in 15 minutes including questioning section.

Second, after getting permission from the lecturer and students, the researcher started to join the speaking class which is conducted on Wednesday at 11:05 – 1:35 p.m. In the class, the researcher become non-participant observer that only watched the situation, openly or concealed, but did not participate with taking a sit in the back of the class to avoid in disturbing the learning process. Third, the researcher observed the students' performance by using the field note instrument form while group of students are performing their journal analysis.

# 2. Recording

Recording is a technique which supported the observation technique and it helped the researcher to enrich the data findings in the filed. Therefore, while students are presenting their journal analysis the researcher also recorded their presentation using the recorder software on windows. Fortunately, the lecturer also recorded the students' performance by using the handycam which is the result quality could be guaranteed and could be detected by the PRAAT software. This situation is really helped the researcher in colleting the data needed.

# **E.** Research Instruments

To make the data collection effective, the researcher also used some instruments. It is strengthen by a statement that "in types of qualitative data, a researcher can gather the data by using various instruments such as interview, documentation, questionnaire, interview and it can be added by any tools such as recording." Therefore, in line with the research problem, the researcher used field note, recorder, PRAAT software, Cambridge dictionary, and checklist as the research instruments.

<sup>&</sup>lt;sup>4</sup> Martyn Descombe. *The good, reseach guide*, open university press, 1998. p.273.

#### 1. Field notes

This filed note used when the researcher joining the speaking class and doing the observation while students performing their journal analysis. By using the field note form the researcher took notes to the whole students' journal analysis presentation. The field notes are contains of:

- a. Date, time and place of observation
- b. Specific facts, numbers, and details of what happens at the site when students doing a journal presentation.
- c. Personal responses to the fact happened during the students' performance.

# 2. Recorder

To support collecting the data needed, the researcher recorded the students' journal analysis performance which is done in pair with one moderator with kind of recorder software. Unfortunately, in the speaking class the lecturer also recorded the students' presentation by using handycam to document the students' activity during the class. Thus, there are two recorders used to record the students' performance.

## 3. MP3 converter

This MP3 converter is used for converting the MP4 file of handycam to the format of MP3, because the data needed in this research is only the audio.

#### 4. MP3 cutter

For the reason that the data needed in this research is students' word stress performance therefore, the researcher also used MP3 cutter to select or cut the data recorded based on the data classification. Those classifications are the words which indicate verb, noun and adjective with not more than four syllables. The recording taken is only on students' journal analysis performance and omitting the opening, closing, and questioning section.

# 5. PRAAT software

To indicate the students stress placement, therefore the researcher also used PRAAT<sup>5</sup> software. This software is used to analyze the data recording that have been already cut using the MP3 cutter and analyze it using the PRAAT software acoustically. By using the PRAAT software the researcher analyzed the students' word stress performance using the pitch and spectrogram provided in the software, and with both two acoustic properties the researcher could indicated the word stress placement.

# 6. Cambridge dictionary

This dictionary used together with the PRAAT software when the PRAAT has indicated the result of spectrogram and pitch contour and has indicated the stress placement of word produced by the students. Then, the

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<sup>&</sup>lt;sup>5</sup> http://www.fon.hum.uva.nl/praat/download win.html downloading PRAAT for windows

stress placement is matched and rechecked using the Cambridge dictionary to make the decision whether it is correct or incorrect.

## 7. Observation checklist

This observation checklist used when the result of PRAAT and dictionary analysis has been determined. Besides, it is used to organize the data collected and to systemize the findings data description. (See the checklist in the appendix)

Thus, from these research instruments of data collection, the researcher will answers the research question about students' word stress performance on their speaking performance.

# F. Data Analysis Technique

This analysis step involved regulating data collection, finding what is prominent and taking a consideration what will be showed as result. The data will be analyzed qualitatively by using descriptive analysis. The steps of analyzing data are;

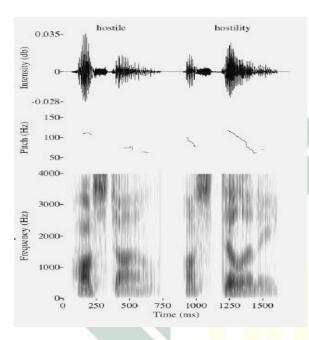
Gathering both researchers' recording and the lecturers' recording yet, the
researcher prefer to use the lecturer recording because its result is clearer than
the researchers' and the quality of the recording result can be guaranteed and
detected by using the PRAAT software. Therefore, the researcher will not use
her own recording.

- Converting the recorder to the MP3 format because the recorder used by the researcher is in the MP4 format. Whereas the data needed in this research is an audio recording.
- 3. Cutting the audio recording using the MP3 cutter while listening to the recorder, because the data needed in this research is word stress which is focused on the three part of speech, they are; noun, verb and adjective with not more than four syllables.
- 4. Analyzing the words that have been cut by using the MP3 by using the PRAAT software acoustically. Thus, to prove the valid data taken from the result of PRAAT software and to have clear explanation about the way to use the PRRAT software therefore the researcher will show the example process of analyzing word stress by using the PRAAT software which is taken from PRAAT tutorial in analyzing English word stress.<sup>6</sup>

Since stress is manifested as rise in pitch, greater intensity (loudness) or greater vowel length, the analysis of stress must include various elements of acoustic analysis, like waveform, spectrogram, and pitch contour. (See image 3.1)

<sup>&</sup>lt;sup>6</sup> <u>ec-concord.ied.edu.hk/phonetics and phonology/wordpress/learning website/praathome.htm</u> the PRAAT tutorial by the Hong Kong Institute of Education

Figure 3.1
Acoutic properties on PRAAT software



#### Note:

-at the top, the waveform indicates the greater intensity of the stressed syllable

-in the middle, it shows the higher pitch shown in the pitch track. "This pitch contour which is indicated the stress placement in a word syllables".

-at the bottom, the spectrogram indicates the greater length of the stressed syllable

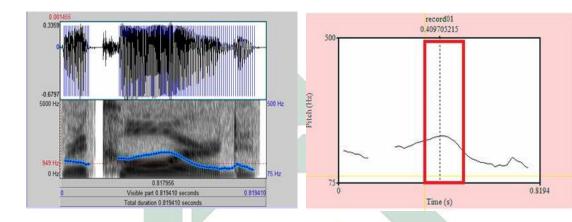
Here are the steps and examples of analyzing stress using the PRAAT:

- a. Open the sound file in PRAAT (Open  $\rightarrow$  read from files...)
- b. Select the file and click "View and Edit" on the right side.
- c. In the Edit window, select:
  - 1) Spectrum → Show spectrogram and
  - 2) Pitch  $\rightarrow$  Show pitch

The pitch analysis is laid over on the spectrogram, but when you export them to the PRAAT objects list they will be treated as separate objects. (See image 3.2 and image 3.3)

Figure 3.2 Record /rɪˈkəːd/

Figure 3.3
Pitch contour of record /rrlkə:d/



The word 'record' is divided into two parts – 're-' and '-cord' and the word record /rɪˈkɔːd/, the stress is put on the second syllable.

- a) In "re-", the pitch is falling down, while in "-cord", the pitch is rising, especially in the part of vowel.
- b) The stressed syllable is higher than unstressed one and the duration of the second syllable "-cord" is longer than the first.

Those are the steps in analyzing and indicating the placement of students' word stress performance in this research. Then,

5. Matching those result of word stress placement acoustic analysis with the stress rules and Cambridge dictionary.<sup>7</sup>

<sup>7</sup> Cambridge advanced learners' dictionary, third edition, Cambridge university press, 2008

- 6. Making a decision whether students' word stress performance is correct or incorrect while filling the observation checklist form to know both part of speech and number of word syllables pronounced by students on their speaking performance. Therefore the researcher can answer the research question number one.
- 7. Calculating those result of observation checklist;
  - a. Word stress performance both correct and incorrect
  - b. Number of syllables, and
  - c. Kinds of part of speech

Therefore to calculate those aspects the researcher will use a formula by Levin and Fox quoted by Sugiatun bellow:

$$\sum_{(x)} = \frac{n(x)}{N} \times 100\%$$

Here are the descriptions of the formula:

 $\sum_{(x)}$  = The percentage of word stress performance

 $\mathbf{n}(\mathbf{x})$  = The total of each word stress (correct/incorrect)

N = The total of all word stress performance<sup>8</sup>

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<sup>&</sup>lt;sup>8</sup> Lis Nur Sugiatu n, Analysis of error on tenses made by junior high school students in writing a recount text, Universitas Negeri Surabaya, 2007, p.42

Therefore, with the data calculation the researcher can answers the research question number two, which is about students' common word stress produced on their speaking performance.

Furthermore the researcher described and interpreted the data findings and made a conclusion about the students' performance and students' understanding on English word stress that indicated their speaking ability. Also, after made a decision of those issues, the researcher will shows some ideas to reinforce the importance of studying and teaching word stress and its patterns in class in order to provide students of English teacher education department with great pronunciation.