

CHAPTER III

RESEARCH METHOD

3.1 Research Approach

In this research, the writer chooses descriptive qualitative method. It is chosen by the writer because the writer concerned with the spectrogram or the pattern of the acoustic phonetics of the data and their frequency. The writer identifies the acoustic characteristics of the participants based on their own formant frequency through the correlation between the average formant frequency of native speaker and the articulation of English vowel sound to know their vowel quality.

3.2 Research Instrument

The writer is the main instrument of this research. She uses herself as the main research instrument through recording, collecting the data, and identifying. The secondary instrument is praat software. It is computer software that is used for analyzing physical properties of phonetics. It is used as a tool to identify the formant frequency of data sources in this research.

3.3 Data Sources

The primary data is recording of words that contain vowel /æ/ and /e/. They are vowel /æ/ sound in word “cat” and /e/ in word “ten”. The secondary is a list of average native English formants. Vowel /æ/ and /e/ is chosen because the

The data is a word cat and ten that were derived by 16 people of eighth semester of Indonesian EFL university students in English Letters, State Islamic University of Sunan Ampel Surabaya. It is chosen because the researcher wants to know and measure the vowel quality of /æ/ and /e/ of university students around her. /æ/ and /e/ is chosen because the writer considers that some people pronounce it in the same way. Besides, the writer also considers that 16 people already represent social group that was become data resource and students who were on the eighth semester are already learning about phonology.

The data collected through some steps:

- [illegible]

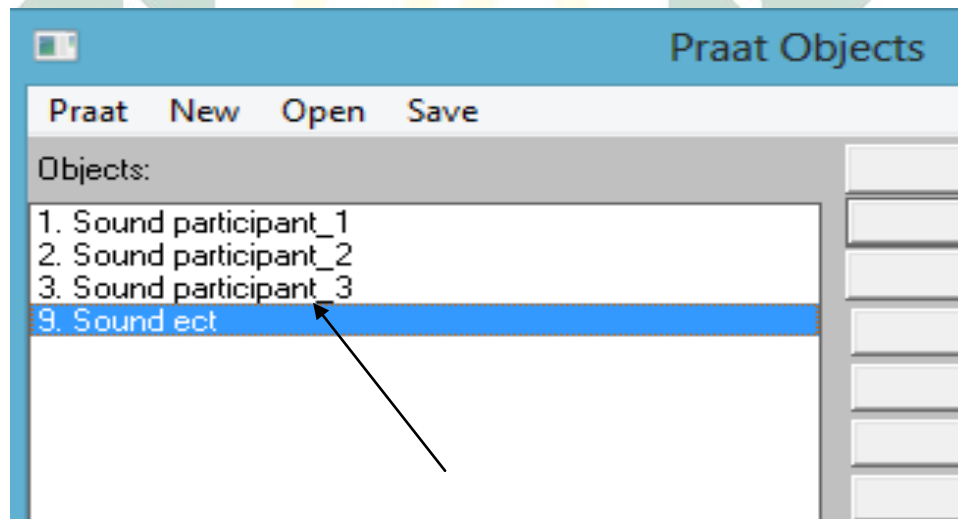
3.5 Technique of Data Analysis

Some steps were taken in analyzing the acoustic characteristic of English vowel produced by EFL university students:

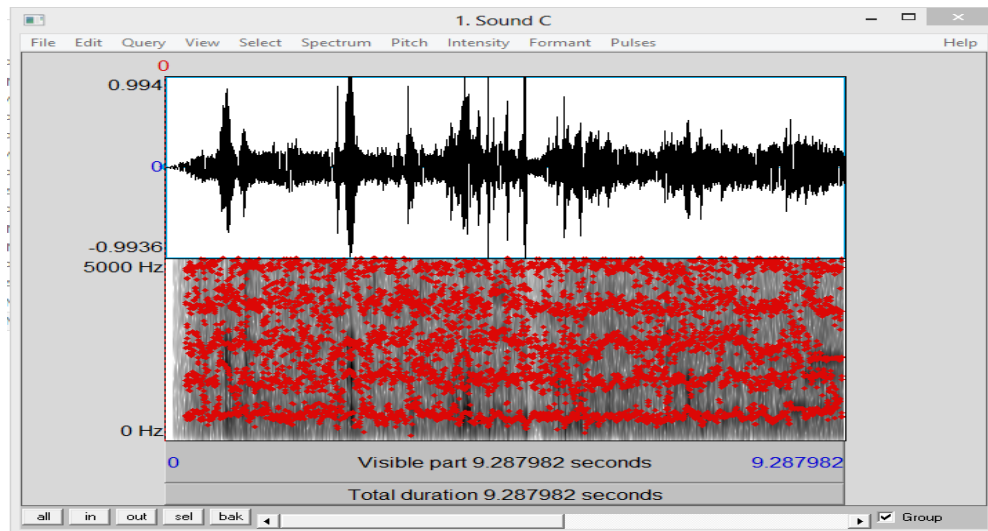
1. For a start, the writer downloaded software praat from www.praat.org and put the software in software in local disk D.



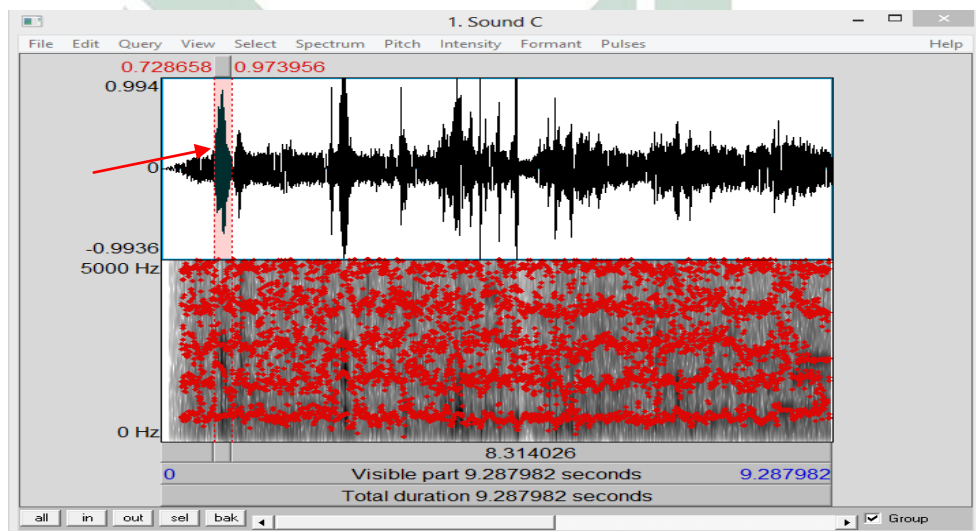
2. Put all the data (recording) into software.



3. Change the data (recording) to the form of spectrogram.



4. Cut and delete the unimportant sound before and after the word sound from environment with red line. It means that the writer just take the sound of the words. For example, the writer just takes spectrogram of word cat when the writer analyzes it.



5. Make sure that the red lines that limit the data sound and the unimportant sound before and after the data sound do not move and saved in the software.

