

## **Chapter Three**

### **Methodology**

This chapter presents about the methodology of this research. This chapter consists of four parts: research design, population and sample, data collection method and data analysis. In the research design, the researcher explains about the design of the research. It is followed by some reasons why the researcher chooses the design. Then, in part of population and sample, the researcher discussed about population and the number of sample that chooses by the researcher. It also shows the sampling technique used for this research. In the data collection method, the researcher reports the ways to collect data of this research. The next, in data analysis, the researcher explains about analysis data of this research.

#### **Research Design**

**Approach.** This research took a basis on quantitative approach. The definition of quantitative is a research that identifies a research problem based on trends in the field or on the need to explain why something occurs (Creswell, 2012). Besides that, Creswell (2012) also stated that some quantitative research problems require one variable affects to another. Based on Creswell (2012) “Variables is a characteristic or attribute of an individual or organization that researcher can measure or observe and varies among individuals or organization studied” (p.112). Quantitative approach is really suitable with this research because in this research the researcher not only researched about the type of error on the use of *in*, *at*, *on* but also, about how many

error that occurs when students use *in*, *at*, *on*. This research dealt with numbers so, quantitative approach was really appropriate for this research.

**Design.** To be more specific, this research took error analysis as the design of this research. According to Brown (2000), error analysis is a process of observe, analyze, and classify student's error. Others definition, Corder (1981) stated, "Error analysis is part of methodology of investigating the language learning process" (p.45). In this research, the researcher used error analysis because the researcher studied about errors that the students made when they *use in*, *at*, and *on* in writings. Then, from error analysis the teacher could know what errors that their students made when using *in*, *at*, and *on* in the writing.

There are several steps that should be followed to conduct error analysis. According to Gass and Selinker (2001), there are six steps that should be followed to conduct error analysis. Those are *collect the data*, *identify errors*, *classify errors*, *quantify errors*, *analysis of source*, and *remediation*. To make it clear, the definition of those steps explains below.

1. *Collect the data*: collect the data that will be analyze, the data can be written data or oral data.
2. *Identify errors*: analyze what is the error, for example incorrect verb form.
3. *Classify errors*: is it an error of agreement? Is it an error in irregular verbs?
4. *Quantify errors*: how many errors that occur.
5. *Analysis of source*
6. *Remediation*: based on the kind and frequency of an error type, pedagogical intervention is carried out.

In this research, the researcher only followed the step 1 up to 4. It was because this research did not need to follow the steps number five and number six. Step number five is *analysis of source*. Moreover, the source of this research was clear from where they come and to whom they are belong. Then, step number six is *remediation*. The researcher did not give a remediation in this research because this research only wanted to research the types of errors made by the students of EED UMY batch 2015 when using *in, at, on* in their writing.

Then, the research was conducted. The first step to conducted this research was collect the data. The researcher collected the data from students of EED UMY batch 2015; and the data were written data. The second was identifying the errors. In this research, the researcher researched the errors on the use of *in, at, on* in the writing. Then, the researcher identify the errors based on the use of *in, at, on* in the chapter two. The third is classify errors, the researcher classify the errors into type of errors such as *omissions, additions* and the others. Then, the last is quantify the errors. The researcher count how much is the error that include in omission, *addition* and the others.

### **Population and Sample**

**Population.** Based on Creswell (2012), population is a group of individuals possesses one characteristic that distinguishes them from other group. This research chose 162 students at batch 2015 of EED UMY. The reasons why the researcher chose students at batch 2015 was because, first, students of EED UMY batch 2015 had academic reading and writing course that it supported the researcher to research

about the error that they made when using preposition in their writing. The reason why the researcher chose to analyze students' error on the use of *in*, *at*, and *on* in writing instead of speaking was because writing made the researcher become easier to observe the data. Besides that, writing is also suitable with the data analysis of this research. This research used document analysis so that the writing was more appropriate to be selected than speaking.

The second reason why the researcher chose students of EED UMY at batch 2015 was because the researcher was curious that the students of EED UMY batch 2015 make a lot of error when they use preposition in their writing. The third reason why the researcher chose students of EED UMY batch 2015 was because the students at batch 2015 of EED UMY are fresh students who learn English for one semester. However, the researcher was sure that students at batch 2015 of EED UMY had already learn about grammars such as how to make a good sentence and how to use part of speech (conjunction, adjective, verb, noun, pronoun, adverb, interjection, and preposition).

Then, if the researcher chose students' writings task of students at batch 2015 of EED UMY, it helped the researcher to know whether the students of EED UMY batch 2015 as fresh students had many errors on the use of *in*, *at*, and *on* in their writing. Moreover, it also helped students at batch 2015 of EED UMY to give some information about error analysis on the use of preposition especially *in*, *at*, and *on* in their writing. Hopefully, in the future they can try to fix the error, learn more about

how to use preposition especially *in*, *at*, *on* and then, when they become teacher they can teach their student well.

There were 162 students EED of UMY from the whole batch 2015 from A class into D class. Nevertheless, the population of this research was the students' tasks, not the people. Then, the populations of this research was all of Academic Reading and Writing tasks. Academic Reading and Writing subject had three times assignments. Then, there were 486 tasks of Academic Reading and Writing subject as population of this research, it was from 162 to multiply 3 and the result is 486.

The reason why the researcher chose Academic Reading and Writing tasks as the population was because the researcher studied about error on the use of *in*, *at*, and *on* in the students' writing. Therefore, it was very suitable for the researcher to choose Academic Reading and Writing tasks as the population. Besides that, the researcher made sure that in the Academic Reading and Writing subject, the students did learn how to make good writing such as how to make a correct sentence, and how to make a good paragraph. Then, if the researcher analyzed students' writing task of Academic Reading and Writing subject, it was more appropriate for this research.

**Sample.** The researcher took students' writing task on Academic Reading and Writing subject as the sample. Moreover, there were two writing assignments in Academic Reading and Writing subject. However, the researcher only chose one of writing assignment of Academic Reading and Writing subject. That was the final writing tasks of Academic Reading and Writing subject. There were 140 students' writing tasks from the whole A class to D class as the sample of this research. It was

because from 162 of entire students at batch 2015, some students had resigned and some students did not submit the assignments. The researcher chose only one of the final writing assignments of Academic Reading and Writing subject because the assignment made the data more objective as it is the final task that to do it the students need to pass through long process of learning. Therefore, it showed the truest students' batch 2015 of EED UMY ability on the use of *in*, *at*, *on* in their writing. Besides that, if the researcher chose to take one of final writing task of Academic Reading and Writing, the data were assumed more accurate.

**Sampling.** In this research, the researcher used purposive sampling. It means the researcher got the sample based on the suggestion of the lecturer of Academic Reading and Writing subject. The reasons why the researcher used purposive sampling was because the samples used in purposive sampling were based on the suggestion of the lecturer of Academic Reading and Writing. Therefore, the researcher was sure that the lecturer of Academic Reading and writing subject had his own characteristics and consideration to give his students writing task as the sample of this research. Beside that, why the researcher used purposive sampling in this research was because when the researcher used purposive sampling, which the sample is obtained based on the suggestion of the lecturer of Academic Reading and Writing, the data were more objective.

### **Data Collection Method**

The purpose of this study was to investigate error on the use of *in*, *at*, and *on* in the writings of the students at batch 2015 EED UMY. Data were collected by

document analysis. The researcher collected the students writing task of Academic Reading and Writing subject. The researcher got the students writing of Academic Reading and Writing subject with the lecturer permission.

Before the researcher analyzed the document, the researcher checked the validity of the document. Therefore, the researcher conducted member checking. The first, the researcher retyped the document. Then the researcher gave back the retype document and the original document to the students EED of UMY batch 2015. After that, the researcher asked the students of EED of UMY at batch 2015 to check whether the document belong to them or not, and also the document were valid or not.

According to Creswell (2012), “there are several steps of collecting the document. Those steps are the first, identifying the type of document that can provide useful information to answer the research questions. The second, considering either public or private document. The third, once the documents are located, seek permission to use them. The next step, providing specific instructions about the procedure when asking participant to keep a journal. Then, examining the documents for accuracy, completeness, and usefulness in answering the research question on the permission to use the documents are obtained. The last step is recording the information from the document” (p.223).

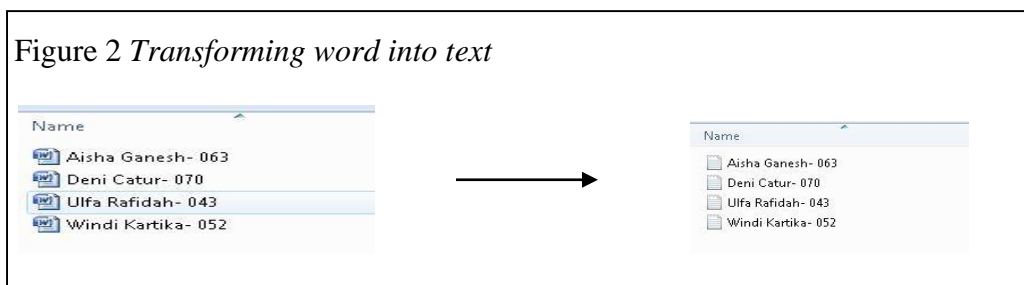
### **Data Analysis**

After collecting data, the next step was analyzing the data gained from the text. The aim of this step was to analyze and interpret the data of the text. The

researcher used Ant Concordance as a tool to help analyze the text of the students writing. The first step of data analysis was to change the hard file document into soft file document. After that, the researcher changed the format MS Word into plain text. Then, the researcher inputted the plain text into Ant Concordance. The next step was to analyze the students errors on the use *in, at, on*. After that, the researcher identified the errors made by students based on the use of *in, at, on* that already attached on chapter two. The next, the researcher categorized the error into type of errors such as omission, *addition* and the others. Then the final step was describing the result.

Below are the steps how the researcher analyze the data using Ant-Concordance.

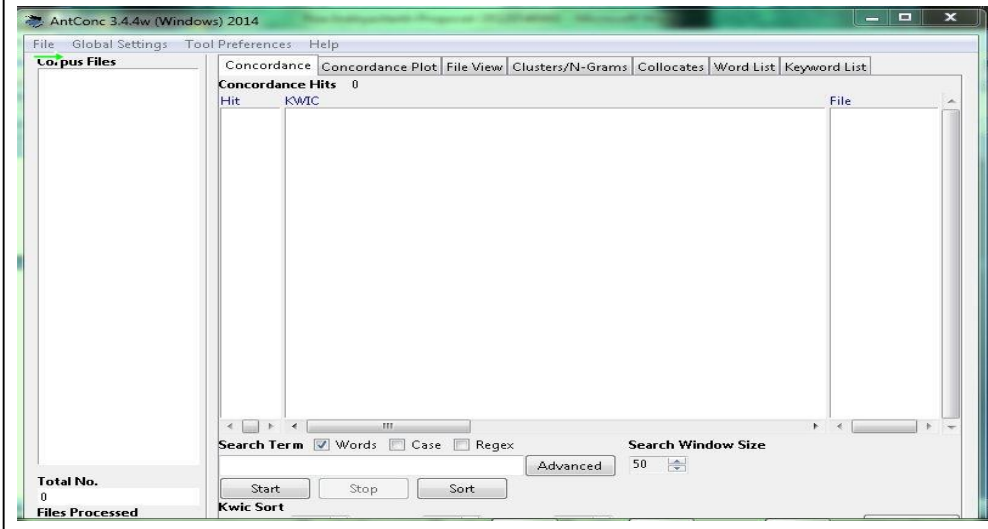
The first is change the format data of Ms-Word into plain text.



Then, the second step: choose the menu **file** of the AntConcordance like the picture below.



Figure 3 *Display of AntConcordance*



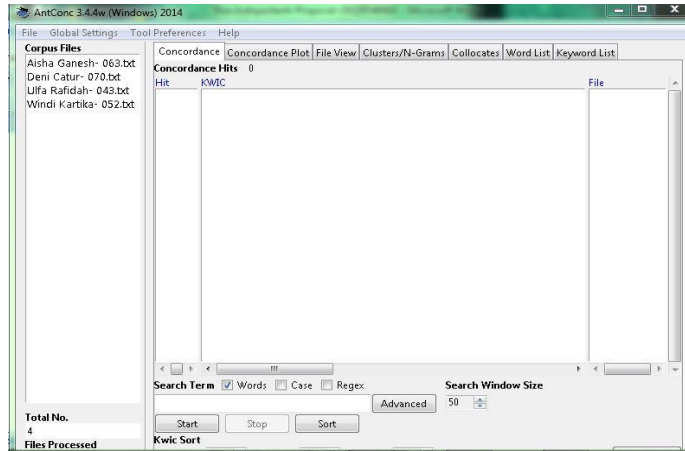
From menu **file** → the researcher chose **open file(s)** → then the researcher searched the folder data → then, the researcher choose the data that will be analyze → then klik **open**.

After the researcher opened the file, the appearance of AntConcordance will be like the picture below



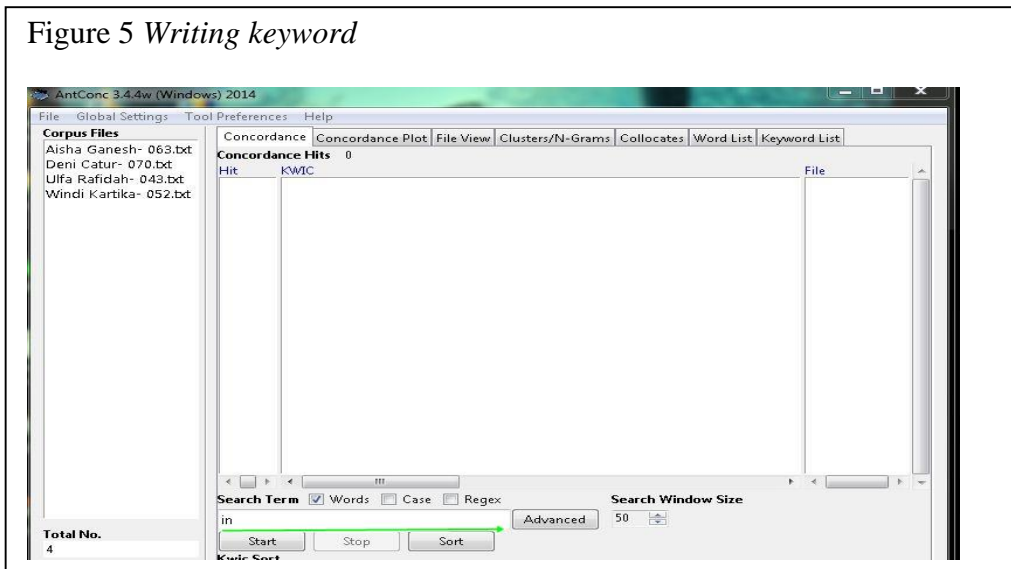
Figure 4

*Opening file for AntCorcondance*



Then, the researcher wrote the keyword or a word that will be analyzed in the column of **Advance** like the picture below.

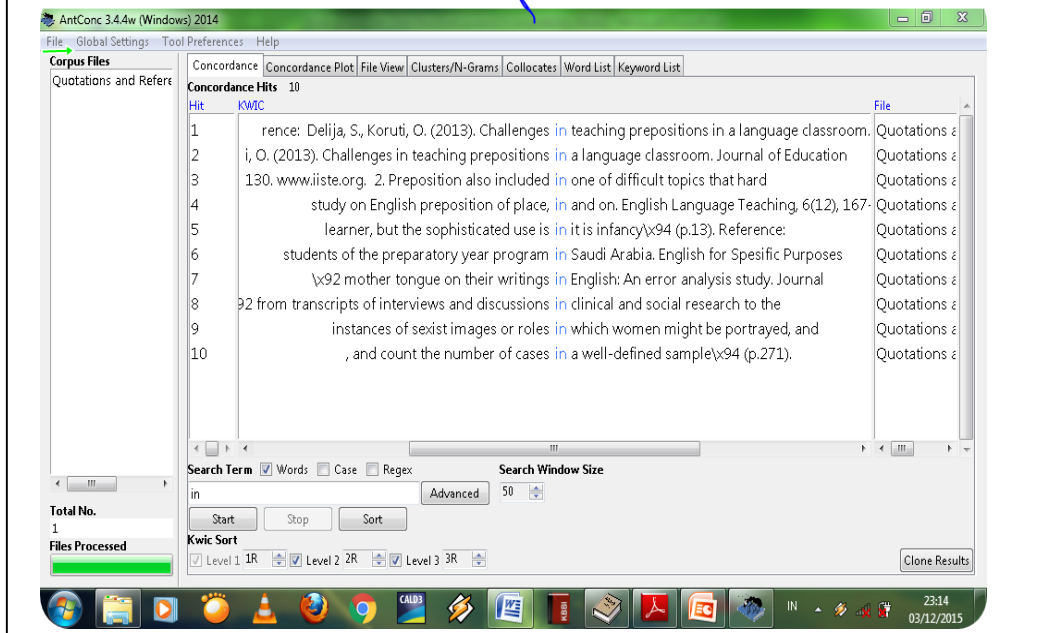
Figure 5 *Writing keyword*



After that click **start**, then the appearance of the AntConcordance will be like the picture below.

Figure 6

*Appearance of AntCorcondanc*



Then, the final step was that the researcher analyzed the data based on the characteristic of *in*, *at*, and *on* that is already attached on the chapter two or page 15 up to 17 of this proposal. For example is as the figure below.

Figure 7

*The Use of in*

<b>Table. 3 The use of <i>in</i></b>
<b>Place</b>
1. It is three dimensional; it <u>is used</u> to explain about something all around.
2. It is used to explain about country, town or any <u>place which</u> has boundaries or is enclosed. Example: in the field.
3. In means inside only.
4. In <u>is used</u> without an article to show place in fixed expression ( <i>in bed, in prison, in hospital</i> ).
5. It is used with an article, <i>a, an, the and</i> a noun to show place.

After doing those steps above or inputting the data to AntConcordance, the researcher got the data that show the sentences that use *in, at, on*. Then, the researcher classify the sentences that use *in, at, on* into place and time. To classify the sentences, the researcher use Weft QDA as a tool. Weft QDA is a tool that helps to do coding or categories the data. After the researcher got the list of sentences that use *in, at, on* in place and time, the researcher did the next categories, it is to identify the errors on the use of *in, at, on* whether in place or time. To identify the errors, the researcher used the list of the use of *in, at, on* in the chapter two. After that, the researcher categorized the errors into type of error. Then, the last step was to describe the results. To make it clear, the researcher shows the figure how to analyze the data below.

Figure 8

*The process of analyze the data*

