Chapter Three

Methodology

This chapter discusses the method used by researcher in examining the correlation between students' reading aloud and their speaking skill at English Education Department of Universitas Muhammadiyah Yogyakarta. It consists of research design, research setting, population and sample, data collection instrument, data collection procedure and data analysis. In this chapter, some references that support the research methodology are also included.

Research design

In this research, the researcher used quantitative design. The researcher chose quantitative design because the data of this research were in forms of numbers and used statistical analysis. Sugiyono (2011) says that Quantitative method is a method of research numeric and using statistical analysis. In this research, the researcher used the correlational study because the researcher aimed to identify whether or not there is a correlation between students' reading aloud and their speaking skill. According to Creswell (2012), correlation research presents a statistical test to determine the tendency or pattern for two or more variables or two sets of data to vary consistently. That was the reson why the

Research setting

The researcher conducted this research in English Education Department of Universitas Muhammadiyah Yogyakarta. The researcher chose English Education Department of Universitas Muhammadiyah Yogyakarta as a research setting to conduct the data because EED of UMY has been providing some speaking subjects since the first semester for the students, namely Listening and Speaking for Daily Conversation, Listening and Speaking for Formal Setting in the first semester, and also Listening and Speaking for Academic Purposes and Listening and Speaking for Career Development in the second semester. Another reason of chose EED of UMY as a research setting was because of its accessibility as the researcher studied in that department. This research was started in June 2015. It was done to confirm whether or not there was a correlation between students' reading aloud and their speaking skill at EED UMY.

Population and sample

Population. Population is the entire research subject (Arikunto, 2013). Besides, Sugiyono (2011) said that population is the generalization that consists of object or subject that has quality and particular characteristic determined by researcher to be studied. In this research, the population was all of the active students of EED UMY batch 2014. In this batch, there were 169 active students from 189 students. So, the total population of this research was 169 students. The researcher chose students of EED UMY batch 2014 because they had already taken the Listening and Speaking for Formal Setting subject and Listening and

still fresh. However, this study focused only on listening and speaking for formal setting because in the this subject provide some activities that apply reading aloud activities such as reading news, dialogue, and speech.

Sample. Sample is a representative of the total population (Arikunto, 2013). Besides, Cohen, Manion and Marrion (2011) say that sample is a smaller group or subset of the total population where the result or information can be representative from the total population. In this research, the researcher applied convenience sampling because it enables the researcher to access the respondents and it is efficient in terms of time. Easy to access the respondents here mean the researcher could choose the nearest and available individual during the data collection time. So, the researcher could get the data quickly. It was supported by Cohen et.al (2011) statement which is:

> *"Convenience sampling sometimes called the accidental or opportunity sampling where the researcher choosing the nearest individuals to serve as respondent and continuing that process until the required sample size has been obtained or those who happen to be available and accessible at the time"(p.155).*

Based on Cohen et.al (2011), if the population was 169 with the confidence level 95% and confidence interval 5%, the total number of sample was 132. So this study involved 132 EED of UMY students batch 2014 as the

Data Collection Instruments

This research used two instruments, namely questionnaire and document of students' speaking skill score.

Questionnaire. In this research, a set of questionnaire was distributed to identify the EED of UMY students' reading aloud habit. This research used questionnaire because questionnaire is usually used for collecting numeric data. This opinion is supported by Wilson and McLean (1994) as quoted by Cohen et.al (2011) statement, which is

> *The questionnaire is a widely used and useful instrument for collecting survey information, providing structured, often numeric data, being able to be administered without the presence of the researcher, and often being comparatively straightforward to analyse (p. 377).*

The questionnaire consisted of 12 statements about the reading aloud habit. In this questionnaire, the respondents only gave a check on the Likert scale. The likert scale involved *Sangat Setuju* (Strongly Agree), *Setuju* (Agree), *Tidak Setuju* (Disagree) and *Sangat Tidak Setuju* (Strongly Disagree). In this research, the researcher did not use *Netral* (Neutral) option because if there was *Netral* (Neutral) option, participants would tend to choose it.

Table 3.1
Table of score criteria in questionnaire item

Description	**Scale**
Sangat Setuju / Strongly Agree	4
Setuju / Agree	3
Tidak Setuju / Disagree	2
Sangat Tidak Setuju / Strongly Disagree	1

The questionnaire was designed in Bahasa Indonesia to avoid the misunderstanding because the Indonesian language is the national language that could be understood by Indonesian people. If the respondents understood the questionnaire, the researcher hoped to get a valid data. Before that, the researcher measured the validity and reliability of questionnaire first.

Validity of instrument. To measure the questionnaire's validity, the researcher used two ways they were expert judgement and items validity test through SPSS program version 20.0.

The first test validity of the questionnaire, the researcher was used expert judgement. Expert judgement here means that the researcher asked to the expert about the questionnaire that will be distributed. The experts were two lecturers at EED of UMY. The first expert judgement said that there were two satement from 14 satement should be deleted because she thought that this statement were not related to the reading aloud habit. The items that should be deleted are statement number 7 and statement number 13. So the total statement were only 12 items. The statement number 7 is about " when I read aloud, I can expres the situation happened in the text". Then, statement number 13 is about " when I read aloud, I pay attention to the pauses based on the punctuation". Then, according to the second expert, the 12 statement of questionnaire were valid but the researcher should add the cover letter on the questionnaire. After revising the questionnaire, the researcher distributed it in EED of UMY batch 2014. The original questionnaire was attacted in appendix A and the final questionnaire version could be seen at the appendix B.

After the researcher got the data, the researcher analyzed the item validity of questionnaire in SPSS program. The data were analyzed to identify the *r* value and the researcher compared the *r* value and *r* table. The *r* table of this study (n=132) with the significance level 0.05 and confidence level 95% is 0.0171. The *r* table is attached at appendix C. The questionnaire items were said to be valid if the *r* value is higher than *r* table (Arikunto, 2006). The criteria of items validity is shown in table 3.2 below.

Table 3.2
The criteria of item validity

r value > *r* table = Valid *r* value < *r* table = Not valid
Source: Arikunto (2006)

After processing the data, the researcher found that all of questionnaire items were valid because the *r* values of the questionnaire were higher than *r* table. The result of the test validity items is presented in table 3.3 below.

Table 3.3
Test Item Validity

No.	Question Item	*r* value	*r* table	Description
1.	Q1	0,69	0,171	Valid
2.	Q2	0,575	0,171	Valid
3.	Q3	0,557	0,171	Valid
4.	Q4	0,720	0,171	Valid
5.	Q5	0,644	0,171	Valid
6.	Q6	0,699	0,171	Valid
7.	Q7	0,675	0,171	Valid
8.	Q8	0,650	0,171	Valid
9.	Q9	0,576	0,171	Valid
10.	Q10	0,439	0,171	Valid
11.	Q11	0,578	0,171	Valid
12.	Q12	0,640	0,171	Valid

Reliability of instrument. In this research, the researcher also analyzed the reliability of instrument. All of the items of the questionnaire were tested to prove the reliability. According to Field (2009), an instrument is said to be reliable if the Cronbach's Alpha or reliability coefficient (α) is higher than 0.70 or > 0.70. Then, George and Marelly (2003) as quoted in Gliem (2003) said that the data were said to be reliable if the alpha coefficient (α) is between 0.60 - 0.90. The categories of the reliability of instrument are presented in table 3.4 below.

Table 3.4
Category of instrument' reliability

Cronbach's alpha	**Internal Consistency**
≥ 0.9	Excellent (high stakes testing)
≥ 0.8	Good (low stakes testing)
≥ 0.7	Acceptable
≥ 0.6	Questionable
≥ 0.5	Poor
≤ 0.5	Unacceptable

Source: George and Marelly (2003) as quoted in Gliem (2003)

From the calculated data through SPSS program, the researcher found that the Cronbach's Alpha of 12 items in the questionnaire is 0.846. According to Field (2009) this instrument is reliable because the Cronbach's Alpha or reliability coefficient (α) is higher than 0.70 or > 0.70. Then, according to George and Marelly (2003) as quoted in Gliem (2003) this instrument is reliable because the Cronbach's Alpha (α) is between 0.60 - 0.90. The reliability statistic was explained in table 3.5 below.

Table 3.5
Reliability statistic

Cronbach's Alpha	N of Items
.846	12

After getting the reliability statistic, the researcher checked the Cronbach's Alpha if item is deleted in item total statistic. The item total statistic can be seen at the appendix D. This is to check which item should be deleted to increase the Cronbach's Alpha. The item should be deleted if the Cronbach's Alpha in the questionnaire item is higher than the result of the reliability statistic. When the researcher checked, the researcher found one questionnaire item that has higher Cronbach's Alpha which is 0.849. The item that should be deleted is question number 10 about "When reading aloud, I pay attention to the grammar of the sentence". So, the question number 10 should be deleted. Then, the researcher deleted or removed that question and the result was like table 3.6 below.

Table 3.6
Reliability statistic

Cronbach's Alpha	N of Items
.849	11

From the table above, we can see that the Cronbach's Alpha is increased but the N of items decreased became 11 items.

Document of students' speaking skill score. The other instrument used in this research was the document of students' speaking skill score. The researcher used document of students' speaking skill score in Listening and Speaking for Formal Setting subject to measure the students speaking skill and to answer the second research question. In this research, the researcher used the final score of students' speaking but the score of soft skill was not included here. Before the

Data Collection Procedure

Before distributing of the questionnaire, the researcher developed the questionnaire items based on the theory on the literature review. After that, the researcher test the validity questionnaire throught expert judgement and distributed it in five class at EED of UMY batch 2014. When the researcher distributed the questionnaire, the researcher stayed on the spot with the purpose to make students easier to ask something about questionnaire that they do not understand and to ensure the participants filled the questionnaire carefully. Then, there are 134 students that fill the questionnaire but the researcher only used the 132 data because it enough and had fill the total sample. After getting the data from the distributed questionnaire and document of students speaking score, the researcher analyzed the questionnaire through descriptive statistic in SPSS program. Then, Pearson product moment correlation coefficient (r) in SPSS program was used to identify the correlation between students' reading aloud habit and their speaking skills.

Data Analysis

In this research, the data were gathered from closed ended questionnaire and also the lecturers' document of students listening and speaking for formal setting score. The closed ended questionnaire was used to know the students' reading aloud habit at English Education Department of Universitas

Table 3.7
The categories of reading aloud habit

Scale	Description
0- 0.9	Never
1- 1.9	Occassionally
2- 2.9	Often
3- 4	Always

Then, the document of students' speaking skill score in listening and speaking for formal setting subject was used to measure the students' speaking skill and to answer the second research question. After getting the students' speaking skill score from the lecturers, the researcher calculated the maximum and minimum of students' score in listening and speaking for formal setting subject. The students' maximum score for the final assessment was 73 and the minimum score was 15.25. After knowing the maximum and minimum score, the researcher made categories of students' speaking score based on the interval formulation from Supratno (2000). The formulation is

$$C = \frac{Xn - X_1}{k}$$

Note: C: The range prediction (class width, class size, class length)

k: The number of class that research wants

X_n: The maximum score of variable

The categories of students' speaking score of this study were presented in the table below.

Table 3.8
The categories of students' speaking skills score

Scale	Description
15.25- 34.5	Low
34.6- 53.75	Moderate
53.76- 73	High

After getting the data from the questionnaire and students' score, the researcher analyzed the data using SPSS program version 20.0. Then, Pearson product moment correlation coefficient (*r*) in SPSS program was used to identify the correlation between the independent variable (reading aloud) and the dependent variable (students' speaking skill). The results of the data were combined with the theories in literature review in order to answer the three research questions. Sugiyono (2011) said that there are five criteria of correlation which are:

Table 3.9
The correlation criteria value

Interval of coefficient	The Level of Correlation
0.00 – 0.199	Very Low
0.20 – 0.399	Low
0.40 – 0.599	Moderate
0.60 – 0.799	Strong
0.80 – 1.000	Very Strong

Source: Sugiyono (2011)