

CHAPTER III: RESEARCH METHODOLOGY

This chapter discusses research methodology which covers (1) research problems, (2) research design, (3) data collection, and (4) data analysis.

3.1 Research Problems

The research problems are formulated through the following research questions:

1. What is the correlation between students' competence in writing narrative texts in *Bahasa Indonesia* and their competence in writing narrative texts in English?
2. Does the correlation of aspects of a narrative text in the two languages relate to its textual features?

3.2 Research Design

This research is a correlational study which analyzes quantitative data in the form of scores. The variables to be correlated are students' competence in writing narrative texts in *Bahasa Indonesia* and their competence in writing narrative texts in English. Correlation is the mutual relation of two or more things; the act or process of showing the existence of relationship between things (Burns, 1995:180). Correlation studies are designed to investigate the nature and strength of functional relationships among the variables of interest to the researcher (Brown, 1998:126, Fraenkel and Wallen, 1993:27). Frankel and Wallen (1993:28)

adds that correlational research is also sometimes referred to as associational research by means of studying the relationships among two or more variables without any attempt to influence them.

3.3 Data Collection

This section presents concerns related to data collection, including population and sample, research instrument, and phases of data collection.

3.3.1 Population and sample

The population of this study is the third grade students of *MTsN* (State Islamic Junior High School) *Pagedangan* Tangerang, which is located on Jl. Gunung Batu, sub-district of Pagedangan, the district of Tangerang, Banten. The population is all of the third year students of the school in 2008/2009 academic year. The way on how to take the sample of the study is the *purposive sampling* technique. It means that the researcher assumes he can use their knowledge of the population to judge whether a particular sample will be representative (See Fraenkel and Wallen, 1993:87). The way was preferred since the researcher had consulted the teachers who taught *Bahasa Indonesia* and English to the student population.

For correlational study, the minimum acceptable sample size is considered by most researchers to be no less than 30 because it may give an inaccurate estimate of the degree of relationship that exists (Fraenkel and Wallen, 1993:294). Considering the above assumptions about samples, the 72 students fulfilled the accurate sample size from 112 students (population).

3.3.2 Research instrument

This research uses two composition tests of students' competence in writing narrative texts. Based on the 2006 curriculum of English, the tests have students write narrative texts both in *Bahasa Indonesia* and in English. The tests adapts the example of national examination specification for *Sekolah Menengah Pertama/Madrasah Tsanawiyah* (Junior High School) in 2004. This test specification was proposed by *Pusat Penelitian Pendidikan Badan Penelitian dan Pengembangan DEPDIKNAS* (Center of educational research and development of Department of National Education).

To assess students' narrative texts, the concept of story assessment criteria proposed by Rose (2008) was utilized. Table 3.3 lists the proposed assessment criteria.

*Table 3.3
Story assessment criteria (Rose 2008:10)*

Purpose	Is the story genre appropriate for the writer's purpose?
Staging	Does it go through appropriate stages?
Field	Is the story plot imaginative, interesting and coherent?
Tenor	Is the reader engaged with characters' reactions and reflections?
Mode	Is the creative use of literate descriptive language and metaphors appropriate for the level?
Phases	Are story phases used creatively to build problems and reactions, and to describe, comment, reflect?
Lexis	Are people, things and places followed through coherently to build up context?
Conjunctions	Are logical relations between each step clear, e.g. shifts back and forward in time, comparisons, cause?
Reference	Is it clear who or what is referred to, e. g. in dialogue?
Appraisal	Conscious control of appraisal, such as feelings, judgments of people and appreciation of things and places
Grammar	Are grammatical conventions used appropriately?
Spelling	Is spelling accurate?
Punctuation	Is punctuation used appropriately?
Presentation	Is the layout clear and attractive? Is it well organized/presented?

The numerical score is obtained by giving each criterion a score from 0 to 3, giving a total score out of 42 (14x3). 0 means there is no evidence of the criterion, while 3 means it is the top standard (Rose 2008:14). In assessing students' composition in *Bahasa Indonesia*, the criteria above were adapted. The instruments (the tests) were enclosed in appendix 1.

3.3.3 Phases of Data collection

Data collection is carried out through some phases. The first phase is arranging the writing tests as the instrument of the study. The second is testing students with the arranged tests. The third is rating the narrative texts written by the students to obtain the data in the form of scores.

There were four raters engaged in evaluating the texts. The teacher who taught the language to the students at the selected setting firstly evaluated students' narrative texts written in Bahasa Indonesia. The English teacher at that school also firstly evaluated students' narrative texts written in English. Then, all students' narrative texts were evaluated then by a student of Post-graduate studies of English Education Program at Indonesia University of Education Bandung (UPI Bandung). The university student was considered familiar with the concept of narrative assessment proposed by Rose (2008). Finally, the texts were reevaluated by the researcher himself.

The collected data were calculated through the following tabulation:

Variable X

No.	Student Name	Scoring Indicator													Sum	Score		
		Purpose	Staging	Field	Tenor	Mode	Phases	Lexis	Conjunction	Reference	Appraisal	Grammar	Spelling	Punctuation			Presentation	
1.
..

Variable Y

No.	Student Name	Scoring Indicator													Sum	Score		
		Purpose	Staging	Field	Tenor	Mode	Phases	Lexis	Conjunction	Reference	Appraisal	Grammar	Spelling	Punctuation			Presentation	
1.
..

Furthermore, the score on the two variables were calculated and analyzed by the following tabulation:

No.	Sample	X	Y	X ²	Y ²	XY
1.	001	....	....	....	....	....
....
Σ	....	....	....	....	....	....

3.4 Data Analysis

Analysis is carried out through three steps. The first step is processing the data to test the correlation. The process includes the test of linearity between the variables to be correlated (see Hatch and Farhady 1982:204, Brown 1988:136-

137, Coolidge 2000:121-122.), and normality of each variable (See Brown 1988:136-137, Priyatno, 2008:28). The two tests are *established* using “SPSS 12.0 for Windows”.

When the collected data fulfil the criteria of normality and linearity . the correlation analysis uses “Pearson Product Moment” correlation formula. The formula stands as follows (See Hatch and Farhady 1982:198, Fraenkel and Wallen, 1993:175, Coolidge, 2000:116):

$$r_{xy} = \frac{N \cdot \sum XY - (\sum X)(\sum Y)}{\sqrt{[N \cdot \sum X^2 - (\sum X)^2][N \cdot \sum Y^2 - (\sum Y)^2]}}$$

r_{xy} = correlation coefficient between X and Y

X = students' competence in writing narrative text in *Bahasa Indonesia*

Y = students' competence in writing narrative text in English

N = total number of subject

$\sum X$ = sum of the row X scores

$\sum Y$ = sum of the row Y scores

$\sum XY$ = sum of the product of each X multiplied by each Y

$\sum X^2$ = sum of the squares of each X scores

$\sum Y^2$ = sum of the squares of each Y scores

$(\sum X)^2$ = the squares of total sum of each X scores

$(\sum Y)^2$ = the squares of total sum of each Y scores

This formula is used to know whether there is a correlation between students' competence in writing narrative text in *Bahasa Indonesia* and their

competence in writing narrative text in English. Besides manual analysis and computation using the above formula, the analysis also used “SPSS 12.0” for Windows (Priyatno, 2008:53-56).

To know the correlation between each aspect of students’ competence in writing narrative texts, the *Pearson* correlation will be used if the raw data of a component is normally distributed, (See Hatch and Farhady 1982:198, Brown 1988:136-137, Fraenkel and Wallen, 1993:175, Coolidge, 2000:116). On the other hand, when each raw data of a component is not normally distributed and two variables do not perform linear relationship, the correlation is analyzed using “Spearman Rho” (See Hatch and Farhady 1982:198, Cohen and Manion 1994:127, Sugiyono, 2007, 2008:244-245). For the statistical computation, the data analysis uses “SPSS 12.0 for Windows”.

Furthermore, the results of the analysis are used to test the stated hypothesis. The following are step-by-step procedures to test the hypothesis (Brown, 1998:121):

1. Look at the H_0 (null-hypothesis)
2. Look at the α level
3. Comparing the r_{observed} and r_{critical}
4. a. if the r_{observed} was less than r_{critical} , it accepted the null-hypothesis and stopped.
b. if the r_{observed} was greater than r_{critical} , it rejects the null-hypothesis and continues.
5. Decide which alternative hypothesis was more logical
6. Making interpretation and conclusion.

The interpretations of correlation are as follow (Burns, 2000):

1. 0.90 – 1.00 is *very high* correlation or very strong relationship
2. 0.70 – 0.90 is *high* correlation or marked relationship
3. 0.40 – 0.70 is *moderate* correlation or substantial relationship

4. 0.20 – 0.40 is *low* correlation or weak relationship
5. less than 0.20 *slight* correlation or the relationship is so small as to be negligible

The second step is analyzing the textual features of the narrative texts. The textual features include *purpose, stages, field, tenor, mode, phases, lexis, conjunction, reference, appraisal, grammar, spelling, punctuation, and presentation* (Rose, 2008). The analysis is concerned with the similarities and the differences of each aspect found in the two narrative texts: narrative texts written in *Bahasa Indonesia* and narrative texts written in English.

The final step is analyzing relation between correlation and textual features. This step relates the significance of aspects and the analysis of textual features discussed in the above paragraph.