

CHAPTER IV

FINDINGS AND DISCUSSION

This chapter consists of two major sections. The first section deals with several findings related to the statistical analysis. The findings were gathered from the questionnaire and the documents reporting the students' score. The second section presents the discussion of the research which gives further information related to the findings.

A. Findings

There would be three parts of data presentation in this section. The first part is *the findings of students reading habits*. The data were collected from statistical analysis of the closed-ended questionnaire in order to answer the first research question. The findings of the instrument test namely test of reliability and test of validity were also presented in this part. The second part is *the findings of students' writing ability*. The third part is *the findings of the relation between students' reading habits and their writing ability*. Before presenting the result of the correlation, the research firstly showed the findings of the requirement analysis tests namely the test of normal distribution and the test of homogeneity. Then, the findings of the correlation are served. Besides, the additional data from the open-ended questionnaire were used to support the statistical findings of the second research question.

1. Students' Reading Habits

The first research question on what the students' reading habits are was answered through the statistical analysis of the data gathered from closed-ended questionnaire. The findings of the instrument tests which were conducted before distributing the questionnaire are presented as follows. The researcher utilized the statistical calculation using SPSS version 22.0 to reveal the reliability of research instrument. All of the items of the closed-ended questionnaire were tested to prove the reliability. From the calculation of Cronbach's α formula, the researcher finds that the reliability coefficient (α) of 30 items in the questionnaire is 0.88. Field (2004) states that an instrument is said to be reliable if the reliability coefficient (α) is higher than 0.70. Accordingly, the instrument of the research is reliable ($0.88 > 0.70$). Besides, the table of item-total statistics of 30 items is delivered in the Appendix 7.

Table 4.1
Reliability Statistics

Cronbach's Alpha	N of Items
0,880	30

Since the instrument of the research is reliable, the researcher then tried to analyze the validity of it. First of all, the researcher gathered the data from the questionnaire. The data gathered were processed to find the r value. The researcher then compared the r value of the data with the r table to find which question items are valid. The items are said to be valid if its r value is higher than r table. The researcher shows the criteria of items validity in the table as follows.

Table 4.2
The Criteria of Item Validity

r value $>$ r table = valid
r value $<$ r table = not valid

The questionnaire of this research consisted of 30 item. After processing the data gathered from the questionnaire piloting, the researcher found that there were 9 items which meet the criteria of a valid instrument. Besides, in order to complete the number of items, the researcher adopted and modified several items from the previous related research. The result of the validity test of the items is presented in the following table.

Table 4.3
Test Validity of Question Items

No.	Question Item	r value	r table	Description
1.	Q1	0.545	0.3	Valid
2.	Q6	0.663	0.3	Valid
3.	Q8	0.718	0.3	Valid
4.	Q10	0.568	0.3	Valid
5.	Q12	0.508	0.3	Valid
6.	Q14	0.713	0.3	Valid
7.	Q16	0.478	0.3	Valid
8.	Q20	0.580	0.3	Valid
9.	Q27	0.591	0.3	Valid

In this research, r value was gained by defining the number of respondents ($n= 100$). Simply by examining the r table, the researcher found that the r table of this research was 0.3. The researcher then compared the r value of each item with the r table ($r = 0.3$) to finally found that there are only 9 valid items. Based on the

table above, it can be concluded that those 9 items of the questionnaire are valid since the r value $>$ r table. The r table is attached in Appendix 5. Moreover, the following sections elaborate detailed findings of the three indicators on the students' reading habits.

a. Students' Preferences on Types of Reading Materials

In this research, the types of reading materials are divided into two reading preferences based on the purpose of reading namely reading for reference materials and reading for general interest article. In terms of *sometimes*, 41.25% of the respondents read for reference materials and 37.4% read for general interest articles. In the category of *often*, surprisingly the result shows the same percentage 19.5% in terms of reading for reference materials and reading for general interest articles. Moreover, 7.25% respondents admitted that they *always* read for reference materials while 4.8% of them read for general interest articles. Table 4.4 presents the total percentage of the types of reading materials read by the respondents.

Table 4.4
Total Percentage of the Types of Reading Materials

Types of Reading Materials	CATEGORY OF FREQUENCY (%)				
	1 (NEVER)	2 (RARELY)	3 (SOMETIMES)	4 (OFTEN)	5 (ALWAYS)
Reference Materials	8.25 %	23.75 %	41.25 %	19.5 %	7.25 %
General Interest Articles	13.8 %	24.5 %	37.4 %	19.5 %	4.8 %

b. Students' Reading Frequency

This research also examined the time allocated by the respondents to read either for reference materials or general interest articles as one of the aspects in reading habits. The result shows that the respondents spent more time to read for general interest articles than for reference materials. It can be seen from the total number of respondents who responded *often* (16.2%) and *always* (7.8%) in reading for reference materials compared to reading for general interest articles. The total percentage of the reading frequency is shown in table 4.5.

Table 4.5
Total percentage of the Frequency of Reading

Time Allocation	CATEGORY OF FREQUENCY (%)				
	1 (NEVER)	2 (RARELY)	3 (SOMETIMES)	4 (OFTEN)	5 (ALWAYS)
Reference Materials	19.8 %	28.4 %	27.8 %	16.2 %	7.8 %
General Interest Articles	12.25 %	34.25 %	37.5 %	10.75 %	5.25 %

c. Students' Reading Techniques

When it comes to the reading activities, the respondents applied different kinds of reading techniques while they are reading. Through the analysis of descriptive statistics, it is revealed that sometimes the respondents used the quick reading (33.5%) more than slow reading techniques (30.3%). Besides, there is a difference of 4 point of the percentage in the category of *often* in the use of quick reading (23.8%) and slow reading techniques (19.8%). While, there is a difference of 6.2 point of percentage in the scale of *always* for quick reading (21.7%) and slow reading techniques (15.5%). The result of total percentage of the reading techniques is delivered in the table 4.6.

Table 4.6
Total Percentage of the Reading Techniques

Reading Techniques	CATEGORY OF FREQUENCY (%)				
	1 (NEVER)	2 (RARE)	3 (SOMETIMES)	4 (OFTEN)	5 (ALWAYS)
Quick Reading	6.2 %	14.8 %	33.5 %	23.8 %	21.7 %
Slow Reading	16.4 %	18 %	30.3 %	19.8 %	15.5 %

Based on the findings above, the researcher divided the level of each reading habits aspect into several categories. To begin with, the low category lies on the range between 0 – 40 %. The good category is between 41 – 80 %. Then, the excellent category is in the range of 71 – 100%. Thus, the aspect of reading habits in terms of the types of reading materials, the frequency of reading and the techniques of reading are in good category. It means that the students' reading habits are good.

2. Students' Writing Ability

The second research question on what the students' writing ability is was completed by analyzing the students' score through the descriptive statistics analysis. The students' score were classified into four levels namely *low*, *average*, *good* and *excellent* level based on the range scale as seen in table 4.7 below.

Table 4.7
The Students' Score Level

LEVEL	SCORE	PARTICIPANTS	
		NUMBER	PERCENTAGE
LOW	0 – 5	-	-
AVERAGE	6 – 15	16	9.1 %
GOOD	16 – 25	140	79.5 %
EXCELLENT	26 – 30	20	11.4 %

The result shows that the students' score are mostly at the good level (16 – 25). From 140 students, those who have score of 20 are 19 students. There are 19 students who get 24 and 9 students get 25 for their essay production in Academic Reading and Writing score. Therefore, most of the students get 20 as seen in table 4.8.

Table 4.8
The Statistics Score

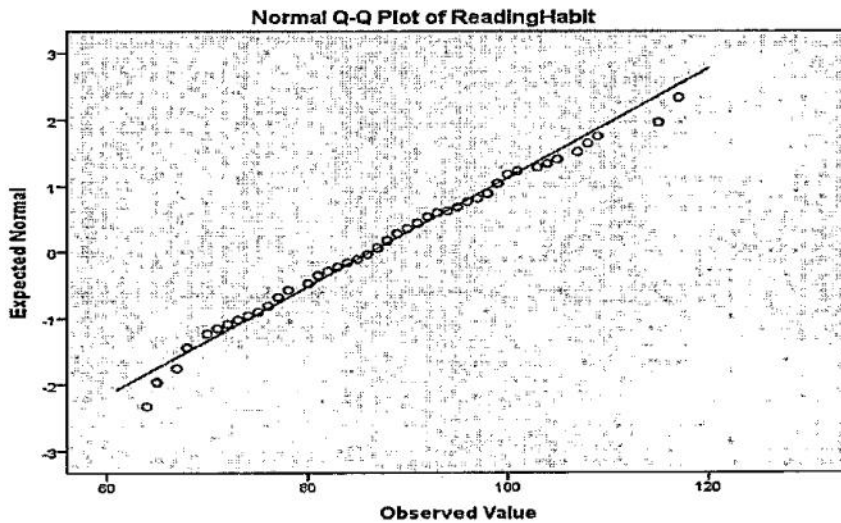
N	valid	176
	missing	45
Mean		20,6847
Median		21,2500
Mode		20,00 ^a
Sum		3640,50

3. *The Relation between Students' Reading Habits and Their Writing Ability*

Before analyzing the correlation between students' reading habits and their writing ability, the requirement analysis tests need to be conducted. The requirement analysis tests include the test of normal distribution and the test of homogeneity. The findings of the requirement analysis test are elaborated in the following sections.

a. Test of Normal Distribution

Figure 4.1
The Graphic Analysis of Normality Test



The analysis of data plot distribution was conducted to find the normality test with graphic. Figure 4.1 presents the result of the normality test through graphic analysis. Based on the graphic analysis of the normality test, the data plots are very close to the diagonal line. It can be concluded that the data of the independent variable were normally distributed. Besides, the statistical analysis using SPSS was also conducted to find the normality of the data. Table 4.9 presents the result of the normality test through the statistical analysis.

Table 4.9
Normality Test

	Kolmogorov-Smirnov ^a			Shapiro-Wilk		
	Statistic	Df	Sig.	Statistic	df	Sig.
Reading Habit	,049	100	,200*	,982	100	,196

The result shows that the data of independent variable in this research are normally distributed. The statistical analysis reveals that the significant value of

independent variable is 0.200. It means that the data of this research have normal distribution since P value is higher than 0.05 ($P > 0.05$) based on the result of Kolmogorov-Smirnov test used by the researcher.

b. Test of Homogeneity

The second requirement analysis test is the test of homogeneity. Using the ANNOVA (F test), the researcher tried to see whether the proportions for a variable are equal when several samples are selected from different population. The result of the homogeneity test is presented in the following table.

Table 4.10
Homogeneity of Variance Test
Reading Habit

Levene Statistic	df1	df2	Sig.
1,100	7	92	,370

Table 4.5 shows the result of test of homogeneity of this research. Based on the table, the *Sig* is 0.370 (p -value > 0.05) which means that the variances are equal. Hence, the population from which the groups were sampled has equal variances or homogeneous.

c. Test of Correlation

This section elaborates the answer to the second research question about the relation between reading habits and students' writing ability. In order to reveal the relation, the researcher analyzed the correlation coefficient by using Pearson Product Moment Coefficient of Correlation (r). The result shows that there is a correlation between students' reading habits and their writing ability. However,

the correlation is in weak category ($r = 0.102$). Therefore, the alternative hypothesis (H_1) “*There is a positive correlation between students’ reading habits and their writing ability in PBI UMY*” is accepted and the null hypothesis (H_0) “*There is no correlation between students’ reading habits and their writing ability in PBI UMY*” is rejected.

Table 4.11
Correlation Result

		Reading Habit	Writing Ability
Reading Habit	Pearson Correlation	1	,102
	Sig. (2-tailed)		,315
	N	100	100
Writing Ability	Pearson Correlation	,102	1
	Sig. (2-tailed)	,315	
	N	100	100

The result of the research related to the correlation between reading habits and writing ability then was supported by the respondents’ answers on the open-ended questionnaire. The respondents were required to mention the real contribution of reading activity toward their writing ability. The result of open-ended questionnaire is attached in appendix 8.

In general, there are several skills that are facilitated by reading activity. Based on the data gathered from the open-ended questionnaire, it was revealed that 54 respondents admitted that reading improves their *vocabularies*. The other 24 respondents conveyed that reading enhance their *knowledge*. In addition, 21 respondents claimed that it develops their *ideas* to write. Furthermore, 26 respondents opined that reading increase their *grammar* as they read. All those findings of the research then would be further discussed in the discussion. The samples of the respondents’ comments are presented in table 4.12 while the

complete results of the open-ended questionnaire can be seen in the appendix 8 (p. 32).

Table 4.12
Respondents' Comments on Reading's Contributions

No.	Theme	Respondents	Statement
1	Vocabulary	R098	Through reading activity my <i>vocabulary</i> knowledge is improved.
		R103	I always read article in web, then I try to guess the meaning without open the dictionary. I found many new <i>vocabularies</i> .
		R162	Reading helps us improving my writing ability by increasing our <i>vocabulary</i> mastery, so that we can make various words while writing.
2	Knowledge	R019	When I'm reading especially reading English book or magazine I can get new vocabulary and I can get new <i>knowledge</i> from that. It is helpful to get new vocabulary and <i>knowledge</i> .
		R098	Through reading activity, our <i>knowledge</i> will be broadly developed.
		R124	Reading helps us to find the ideas for writing. We can find some <i>knowledge</i> before writing so that we can produce an interesting one.
3	Ideas	R080	Increase new <i>ideas</i> . Increase the vocabularies.
		R112	The ideas will come up when I read a book and then conclude the meaning of what I read.
		R175	Improves some ideas, broaden the knowledge related to writing activity.
4	Grammar	R011	It can help me to improve my <i>grammar</i> , spelling and vocabulary.
		R021	Through reading some books I can easily increase my vocabularies and formula of <i>grammars</i> .
		R036	To grant a new vocabulary and make me more understand the way to use grammar.

B. Discussion

This section presents the thorough discussion on the instrument test, requirement analysis tests and the quantitative data of the research. The discussion on the quantitative findings led to the answer for the first and second research question. Besides, the discussion on the open-ended questionnaire gives support to the answer for the second research question as well as providing another finding.

1. *Students' Reading Habits*

In this research, each indicator of students' reading habits was divided into two sub categories. First of all, the *types of reading materials* were divided into the types of *reading for reference materials* and *reading for general interest articles*. The *frequency of reading* as the second indicator was examined through the *time allocation* of reading both for reference materials and general interest articles. The last, the techniques of reading were summarized into two kinds of reading techniques namely *quick reading* and *slow reading*. Quick reading refers to the techniques of reading comprehension namely *previewing*, *guessing meaning from context*, *skimming* and *scanning*. While slow reading includes open the dictionary, using finger as a pacer, take some notes and move lips and/or head while reading.

In order to answer the first research question, the researcher gathered the data of respondents' reading habits from the questionnaire values. The values of the respondents' answers on the questionnaire were attached in appendix 3. Those data then were analyzed to reveal the frequency through the descriptive statistic in SPSS. The table frequency of each questionnaire is attached in the appendix 6.

a. *Students' Preferences on Types of Reading Materials*

The first aspect of reading habits being investigated in this research is the types of reading materials. In order to ease the interpretation of the data, the total percentage of the three aspects of reading habits were divided into two categories namely *low* and *high frequency*. *Low frequency* refers to the percentage calculation of the categories of *never* and *rarely*. While *high frequency* includes

the calculation of the categories of *sometimes*, *often* and *always*. The interpretation of the total percentage of the types of reading materials is presented in table 4.13.

Table 4.13
Interpretation of the Total Percentage of the Types of Reading Materials

Types of Reading Materials	CATEGORY OF FREQUENCY (%)				
	1 (NEVER)	2 (RARELY)	3 (SOMETIMES)	4 (OFTEN)	5 (ALWAYS)
Reference Materials	8.25 %	23.75 %	41.25 %	19.5 %	7.25 %
	32 %		68 %		
General Interest Articles	13.8 %	24.5 %	37.4 %	19.5 %	4.8 %
	38.3 %		61.7 %		

Based on the data in the questionnaire, in terms of reading for reference materials, most of the respondents (68%) read English reading materials *related to their study, textbook, e-book and journal*. On the other hand, there were also respondents who read reading for general interest articles (61.7%). Reading for general interest articles materials consisted of reading materials which are *not related to their study, short story, magazine, newspaper and online article about entertainment*. Based on the table above, it can be seen that the *high frequency* of reading for reference materials (68%) is higher than the *high frequency* of reading for general interest articles (61.7%). The implication is that students of English Education Department of UMY prefer to read the reference materials. However, the findings do not suggest a meaning that those who often read for reference materials never read for general interest articles. It was shown by their responses to the question items in the first section of the questionnaire concerning the types

of reading material they read. The complete result of questionnaire is presented in appendix 3 (p. 8).

b. Students' Reading Frequency

When it comes to the frequency of reading as one of the reading habits indicators, Anderson, Wilson & Fielding (1988) as cited in Gaona & Gonzalez (2010) proposed that the amount of time reading in a given unit of time (usually a week) is the indicators to determine the existence of reading habits. The second part of the reading habits aspect is related to the time allocation for reading for both reference materials and general interest articles. Table 4.12 below shows the interpretation of the total percentage of the frequency of reading.

Table 4.14
Interpretation of the Total Percentage of the Frequency of Reading

Time Allocation	CATEGORY OF FREQUENCY (%)				
	1 (NEVER)	2 (RARELY)	3 (SOMETIMES)	4 (OFTEN)	5 (ALWAYS)
Reference Materials	19.8 %	28.4 %	27.8 %	16.2 %	7.8 %
	48.2%		51.8%		
General Interest Articles	12.25 %	34.25 %	37.5 %	10.75 %	5.25 %
	46.5 %		53.5 %		

The respondents' responses to the question items in the second section of the questionnaire shows that those who always spend the time to read for reference materials also spend the time for reading for general interest articles. In this section, the researcher examined the *high frequency* of the frequency of reading. It was revealed that 51.8% allocated the time to read for reference materials while 53.5% of them did so for general interest articles. The

questionnaire also reveals that the *low frequency* of the time allocation for reference materials (48.2%) is higher than for general interest articles (46.5%). It means that the students prefer to spend more time for reading for general interest articles than for reference materials.

c. Students' Reading Techniques

The techniques of reading comprehension being investigated in this research are quick reading and slow reading. Quick reading refers to *previewing, guessing meaning from context, skimming and scanning*. While the slow reading includes using finger as a pacer, take some notes and move lips and/or head while reading. Between the two techniques, the result shows that the students of English Education Department prefer quick reading as the technique used for reading comprehension.

Table 4.15
Interpretation of the Total Percentage of the Techniques of Reading

Reading Techniques	CATEGORY OF FREQUENCY (%)				
	1 (NEVER)	2 (RARE)	3 (SOMETIMES)	4 (OFTEN)	5 (ALWAYS)
Quick Reading	6.2 %	14.8 %	33.5 %	23.8 %	21.7 %
	21 %		79 %		
Slow Reading	16.4 %	18 %	30.3 %	19.8 %	15.5 %
	34.4 %		65.6 %		

Based on the table 4.13 above, it can be seen that the respondents mostly applied *quick reading* techniques while reading. It is because the total percentage of the *high frequency* for quick reading (79%) is higher than for slow reading (65.6%). In applying quick reading strategy, the respondents usually predicted the

writer's idea in order to enhance their comprehension faster. The respondents also prefer tried to guess unfamiliar words meaning. Besides, they also often skimmed through the text in order to find a specific point of the text. They took some notes, open the dictionary and move their lips as they read that way. In addition, they also used their finger as a pacer and prefer to read aloud. The further information related to the number of the respondents response on the techniques of reading is delivered in the appendix 6 (p. 98).

2. *Students' Writing Ability*

In order to answer the second research question on what the students' writing ability is, the researcher analyzed the students' Academic Reading and Writing score using descriptive statistics. The level of students' score represents the level of their writing ability. When it comes to the students' writing score, it can be concluded that generally the students' score are in *good* level (16 – 25) as much as 140 students. The *low* level of the students score scale is from 0 – 5. Besides, the *average* level lies between 6 – 15 points. Furthermore, the *excellent* level is started from 26 to 30 points.

3. *The relation between Students' Reading Habits and Their Writing Ability*

The previous results show that the students' reading habits of English Education Department are considered as good since the high frequency of the students reading materials preferences is for reference materials (68 %). Besides, the high frequency of the students' frequency of reading is for general interest articles (53.5 %). Finally, the high frequency of the students' reading techniques is

for quick reading (79 %). Besides, the result shows that the students' writing habits are in good category.

Whether or not the students' reading habit and their writing ability correlate each other was statistically analyzed. The Pearson Correlation coefficient of this research is ($r = 0.102$) meaning that the correlation is weak. The result of the research shows that there is a positive correlation between the students' reading habits and students' writing ability. Therefore, the alternative hypothesis (H_1) is accepted and the null hypothesis (H_0) is rejected.

The supporting data gathered from the open-ended questionnaire mention several aspects which were improved by reading activity. As previously mention in the findings, the respondents claimed that reading improves their *vocabulary, ideas, knowledge and grammar*. That reading habits improve the students' vocabulary can be seen from the following students' response from the open-ended questionnaire. A student (R098) said, "*Through reading activity my vocabulary knowledge is improved*". Besides, another student response claimed, "*I always read article in web, then I try to guess the meaning without open the dictionary. I found many new vocabularies*". Those statements are in line with Pressley (2000: 56) who states that "The frequent admonition for children to 'read, read, read' makes sense in that extensive reading promotes fluency, vocabulary, and background knowledge".

The evidence of the reading habits help the students assist new ideas is stated by some students. A student (R080) said "*Increase new ideas. Increase the vocabularies*". Another one (R112) claimed, "*The ideas will come up when I read*".

a book and then conclude the meaning of what I read". Besides, a respondent (R175) said, "*Improves some ideas, broaden the knowledge related to writing activity*". Thus, the students' responses are suitable with what is proposed by Mikulecky & Jeffries (2004) that readers can gain some general ideas about an article or a book through the skimming.

In terms of grammar, reading habits enriches students' knowledge of grammar. A student (R011) explained that, "*It can help me to improve my grammar, spelling and vocabulary*". Another student (021) claimed that, "*Through reading some books I can easily increase my vocabularies and formula of grammars*". While a student (R036) stated that, "*To grant a new vocabulary and make me more understand the way to use grammar*".

As stated by Stotsky (1983) who admits that, "Studies that sought to improve writing by providing reading experiences in place of grammar study or additional writing practice found that these experiences were as beneficial as, or more beneficial than, grammar study or extra writing practice".

There are other findings discovered from the open-ended questionnaire related to the reading contribution toward writing ability. Two respondents also said that reading *provides information* to write. It is supported by the respondent (R119) who said, "*Reading helps us getting new topic or statements. It is because every time we read, we will get the information that can be used to support the content of our writing*" (appendix 8, p. 105). Other two respondents proposed that reading *serves new topic* for writing as a respondent (R203) said, "*I can find a new topic, improve my vocabulary and find new ideas*".

Furthermore, there are several aspects which are improved by reading activity stated by the respondents. Seven respondents thought that reading materials can be a *reference* for them to write. A respondent also felt that reading gives her *motivation* to write. Besides, three respondents said that reading gives them *inspiration* and two of them said that reading gives them *imagination* to write. Another contribution of reading toward writing ability mentioned by three respondents was to develop the respondents' *critical thinking*. One of them claimed that reading activity improves her *creativity*. In addition, *the language style* of the respondents can be influenced by the writer's language style as stated by four respondents. Moreover, a respondent (R005) said, "*Almost every assignment of writing needs a help of reading*" (appendix8, p. 32). Surprisingly, there was a respondent who claimed that reading gives contribution in all aspects of writing. On the contrary, there was a respondent (R095) who stated that reading activity do not give any contributions toward his writing ability. He clearly said, "*Not at all. When I read some of books/article I don't get an impact in writing skill*" (appendix 8, p. 103). However, it can be concluded that most of the respondents opined that reading habits do give the contributions toward their writing ability.