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The Correlations among Undergraduate EFL Students' Reading Habit, Multiple Intelligences, and Writing Mastery

Ayu Lestari
Sriwijaya University, Indonesia
e-mail: ayulestari@sriwijayauniversity.org

Sofendi
Sriwijaya University, Indonesia
e-mail: sofendi@yahoo.com

Ismail Petrus
Sriwijaya University, Indonesia
e-mail: Ismailpetrus@yahoo.com

Abstract:
The objectives of this study were (1) to describe the students' Reading habit, multiple intelligences, and writing mastery, (2) to find out whether or not there was significant correlation among the students' Reading habit, multiple intelligences, and writing mastery, and (3) to find out whether or not the students' Reading habit and multiple intelligences contributed to their writing mastery. In this study, 76 undergraduate EFL students of English Education Study Program of Sriwijaya University in the academic year 2017/2018 in the seventh semester were chosen as a samples by means of purposive sampling. This study applied correlational research design. The data were collected by using questionnaires and test, and were analyzed by using Pearson Product Moment correlation coefficient and regression analysis. The results showed that (1) most of the students (38) were in the average level of reading habit; most of the students (12) had six dominant intelligences; most of the students (44) were in the good level of writing mastery; (2) reading attitude was the

only habit which had a negative and significant correlation to the students' writing mastery (r= -271, p< 0.018); reading attitude also had positive and negative and significant correlation to the students' ideas (r= -0.367, p< 0.001) and thesis voice audience (r= -0.236, p=< 0.040); logical intelligence was the only intelligence which had negative and significant correlation to the students' writing mastery (r= -0.238, p= 0.038); ideas was the only the aspect of writing had a negative and significant correlation to the students' logical intelligence (r= -0.267, p= 0.020) and intrapersonal intelligence (r= -0.250, p= 0.029); (3) reading attitude became the best predictor and influenced the students' writing mastery with 7.3% contribution (R^2 = 0.073).
Keywords: *reading habit, multiple intelligences, writing mastery*

1. Introduction

English is an important language in the world used as the main tool of communication among people who are different in their native languages. English has become a lingua franca for communication in business, education, and government. Hammond (2012) states that English is a language which has the most users in the world after Mandarin. There are 101 countries and 10 organizations that use English as their formal language such as: UK, USA, South Africa, Singapore, Switzerland, CEO, NATO, and NAFTA etc. The total of users are about 1000 million people.

English is the first foreign language being taught in Indonesia. It is based on the Regulation of Minister of Education and Culture No. 096/1967 (Kartono, 1976; Alwasilah, 2005) regulating the status and function of English. It has been used as the first foreign language in Indonesia since 1955. Foreign language is a language that is not used as a communication tool in a particular country where the language is taught. Halim (1976, p. 146) argues that English has some official functions in Indonesia: (1) means of communication among nations, (2) means to support the development of Indonesian language to become modern language, and (3) means of science and technology transfer for national development.

There are four skills that students must learn: listening, speaking, reading, and writing. Among the four skills, writing is an important skill because writing is a skill of expressing thoughts and ideas in a written form in addition to the oral form and it is needed in the academic world. Writing allows students to express their ideas, develop essential critical thinking, and enhance cognitive functioning. Richards and Renandya (1996) argue that writing allow people to express themselves personally and publicly, to communicate with others, to gather and clarify information, to explore thoughts and feelings, to document and transmit our findings, and to exercise rights and duties as citizens.

Brown (2007, p. 391) states that writing is a process which produces written products which can be said as the result of thinking, drafting, and revising. It is a competence which requires students think of something scientifically in order to produce written text which has clear purpose, function, and genre. The students should choose a certain topic and elaborate the topic into a text so that the purpose of their writing would be exposed clearly. However, it is not an easy task for students. Therefore, writing becomes one of the problems in literacy and also considers as a challenging skill because there are many aspects that must be taken into account such as word choice, grammar, punctuation, spelling, coherence, and many others.

Horsburgh (2009, p. 9) defines writing as a laborious activity for students since it is not a natural activity and requires strong motivation and a great deal of practice. Richards and Renandya (2002, p. 303) add that another difficulty in writing is not only in generating and composing the ideas, but also in presenting the ideas into the text. According to Langan (1987) and Gunning (1998), writing is more complex and more abstract than talk. Writing is unlike spoken language, as it requires the readers or the audience to understand and interpret what has been written.

The ability to understand and interpret the written text must be mastered by the students. As Leonard (2010) states that mastery is practice. It refers to the process where what was difficult becomes easier. It can be concluded that writing mastery refers to the students' ability in transferring what they thought in their mind in the form of text.

To achieve writing mastery, the students should read more in order to get the ideas to write well. King cited in Lamott (2016) states that if you want to be a writer, you must do two things above all others: read a lot and write a lot.He also states that aspiring writers read wherever and whenever possible. It means that to be a good writer, students have to build their habit in reading.

Reading habit is an essential aspect for creating the literate society in this world as it shapes the personality of an individual, helps to develop the proper thinking methods and create new ideas (Sadan, 2012). Meanwhile, Simanjuntak (1988) states that reading habit is the number of repetitions in given time to read English text. Furthermore, Sangkaeo in Annamalai & Murniandy (2013) state that reading habit refers to the behavior, which expresses the interest of reading and taste of reading. Similarly, Shen (2006) identifies reading habits as how often, how much, and what the readers read. Reading is a great habit which can change human life significantly. It can entertain, amuse and enrich people with knowledge and experiences.

According to McShane (2005, p.7), reading and writing are a key to learning in all aspects of life. They provide access to get information and knowledge, intensify intelligence, facilitate life-long learning, and open doors to opportunity in order to help readers improve their knowledge and intelligence if they have a good reading habit. Reading and writing skills are said to be so much interrelated at either primary, secondary and/or tertiary levels of education that it has been claimed that ''… good writers are good readers… Good reading is the key to becoming a good

writer…Becoming a good writer works together with becoming a good reader'' (Kessler, 2006, pp.5-9). Seen from another perspective, throughout the years of their stay at colleges, university students are expected to spend the lion's share of their time primarily on reading various textbooks, journal articles and other similar reading materials. Thus, they are required to be or become efficient and competent readers of such texts in order to elicit as much as possible information from what they read and also increase their intelligence.

Related to the correlation between writing and reading habit, Zainal and Husin (2002, p. 2) argue that a good reader usually makes a good piece of writing. It is also supported by Langer and Flihan (2000, p. 5) who state better writers tend to be better readers of their own writing as well as of other reading material, that better writers tend to read more than poorer writers, and that better readers tend to produce more syntactically mature writing than poorer readers. Those statements show reading habit and writing are related each other. Intelligence is the ability to acquire and retain knowledge (Brown 2007, p. 108). It is also supported by Gardner (1983), intelligence is the ability to find and solve problems and create products of value in one's own culture. Dettermon (2005) states that intelligence is the general mental capability to reason, solve problems, think abstractly, learn and understand new material and profit from past. In addition, Ceci (2001, p. 4) asserts that intelligence is the ability for complex thinking and reasoning. Armstrong (2000, p. 2) affirms that intelligence is the capacity to use words effectively whether orally or in writing. It also includes the ability to manipulate the syntax or structure of a language, the semantics or meaning of language and the pragmatics dimension or practical uses of language. Traditionally, intelligence is defined and measured in terms of linguistic and logical-mathematical abilities. The theory of multiple intelligences was developed by Gardner (1983). The traditional notion of intelligence based on IQ testing is very limited. Therefore, Gardner proposes nine different intelligences to account for a broader range of human potential. They are verbal/linguistic intelligence, mathematic/logical intelligence, musical intelligence, spatial/visual intelligence, bodily/kinesthetic intelligence, interpersonal intelligence, intrapersonal intelligence, naturalistic intelligence, and existential intelligence. In an attempt to discover whether there is any relationship between multiple intelligences and writing mastery, Marefat (2007) investigated the participants' scores of their essay writing course exam in relation to their MI. The results turned out that kinesthetic, existential, and interpersonal intelligences made the greatest contribution toward writing scores. Another investigation of the relationship between Iranians' EFL essay writing and their logical/mathematical and linguistic intelligences was carried out by Rahimi and Qannadzadeh (2010). Overall, logical/mathematical intelligence was significantly related to the use of more logical-connectors in their essay writing. Ahmadian and Hosseini (2012) investigated the relationship between Iranian EFL learners' multiple intelligences and their performance on writing. The results showed that only linguistic intelligence and interpersonal intelligence had a statistically significant correlation with the participants' writing scores. The researchers showed that linguistic intelligence remained as the best predictor of writing performance. Naseri and Ansari (2013) investigated the relationship between

multiple intelligences and Iranian high school students' L2 writing achievement. The results indicated that among different types of multiple intelligences just linguistic intelligence had a statistically significant positive correlation with writing achievement.

Even though, many experts argue that reading habit and multiple intelligence are possessed by students can help them be easy in their writing. In a fact, based on the data from Scopus and Scimago as the indexers for many journals in the world note that in 2017, there were only 12.098 journal publications in Indonesia. It is proven that due to the lack of publication in international journals, Indonesian universities' ranking dropped drastically in QS World Universities' Ranking 2017 for 100 levels down (Ibtisam, 2017). Of course, this number is far from satisfactory.

The problem in writing might because of the students bad habit in reading. Based on Gillani Research Foundation in Pakistan (2008-2009), 27% of their respondents read apart from those prescribed in the students' syllabi and 73% do not read books. This phenomenon is an encouraging indication in a country with low literacy rate.

In Indonesia, some of the students are reluctant to read books because they think that reading is not the main activity to get new information. A research conducted by Siswati (2010) in one of the public universities in Central Java showed that 85.9% chose to watch television, 40.3% chose to listen to radio as their source of information while reading was just 23.5%. Another research done by Strauss (2012) found that Thai L2 students were reluctant to read scientific English books; they chose magazine and fiction English books as their favorite options. They read English text books just to find the information for example technology and traveling book or when an examination pushed them to read an English book.

The aims of the study were to investigated the correlation between the students' reading habit and their writing mastery, the correlation between the students' multiple intelligences and their writing mastery, the correlation between the predictor variables (the students' reading habit and multiple intelligences) and the criterion variable (the students' writing mastery).

2. Research Methodology

The sample of this study was 76 English education students of Sriwijaya University. The sample consists of 43 Indralaya students, and 35 Palembang students. Data collection was conducted by using questionnaires and test. To obtain the information of students' reading habit and reading strategies (predictor variables), the questionnaires are given to the students. The first questionnaire was Reading Habit Questionnaire adapted from Janthong and Sripetpun (2010). It consists of 20 items which covered reading attitude, reading frequency, books read, and reading access as its aspects. The second questionnaire was the Multiple Intelligence (M.I.) Inventory composed by McKenzie (1999). It was 90 items which include verbal/linguistic intelligence, logical/mathematical intelligence, spatial/visual intelligence, bodily-kinesthetic intelligence, musical intelligence, interpersonal intelligence, intrapersonal intelligence, existential intelligence, and naturalist intelligence. The reliability level of the questionnaires were .947 and .994

respectively. In addition, students' writing mastery (criterion variable) was measured by having them to write an academic essay based on the given topic " The Importance of English in Modern Era". The students must give attention to the organization of academic essay text: introduction (general statement and thesis statement), body (ideas/argument, and conclusion (summary).

The data from questionnaires and test were analyzed by using Statistical Product and Service Solutions (SPSS) 19. In order to see the correlation between predictor variables (reading habit and multiple intelligences) and criterion variable (writing mastery), correlation technique of Pearson Product Moment was applied. Finally, regression analysis was applied to measure the contribution of predictor variables to criterion variable.

3. Findings and Discussion

3.1 Results of Reading Habit Questionnaire

Before analyzing all the data by using parametric tests, it should be ensured that the data were normal, linear and homogenous. Kolmogorov-Smirnov test was employed to see the normality of the data; Levene's test was applied to see if the data had the same variance; and Anova test was employed to see the linear relationship of the data.

The results of normality test for reading habit, multiple intelligences, and writing mastery showed that the data were distributed normally because the significance values were higher than .05. The significance values of reading habit, multiple intelligence, and writing mastery data were .570, .641, and .919 respectively. Those data were considered normally distributed.

The results of the homogeneity test between reading habit and writing mastery, between multiple intelligences and writing mastery, and between predictor variables (reading habit and multiple intelligences) and criterion variables (writing mastery) showed that the significance values were .123, .113, and .000 respectively. Since the significance value of predictors variables (reading habit and multiple intelligences) and criterion variable (writing mastery) was lower than 0.05, it was concluded that the variance of the data was not similar. Azwar (2001) explains the homogeneity assumption of the variance is negligible without great risk as long as we have the same sample size in each treatment sample. Conversely, if the sample size in each of treatment is not the same then the violation of the variant homogeneity assumption can have serious consequences for the validity of the inference or inference of the final analysis. On the other hand, the variance between reading habit and writing mastery, and multiple intelligences and writing mastery were considered equal since the significance value was .123 and .113.

For linearity test, deviation of linearity was obtained. If probability score was more than 0.05, the two variables were linear. The results of analysis between reading habit and writing mastery, and multiple intelligences and writing mastery showed that the significance values of deviation from linearity score were .266 and .619 respectively. Therefore it can be concluded that the data were linear.

The statistical data were classified into two: the score distribution of reading habit total and the aspects of reading habit. The mean score for reading habit (total) was 72.8421. The standard deviation of reading habit was 9.51077. There were 48.68% students in high category, 50% in middle/medium category, and 1.315% in low category.

Table 1
The Score Distribution of Students' Reading Habit $_{Total}$ (N=76)

Interval	Category	Freq	%	Mean	Std.
74-100	High	37	48.68		
47-73	Middle/Medium	38	50	73.0000	9.69536
20-46	Low	1	1.315		

There were four aspects of reading habit: reading attitude, reading frequency, books read, and reading access. The mean score of reading attitude was 40.1053 with the standard deviation of 13.415. For reading frequency, the mean score was 14.8289 and the standard deviation was 2.48402. For books read, the mean score was 12.1579 with the standard deviation was 1.85510. The last, the mean score of reading access was 10.1842 and the standard deviation was 2.18303.

Table 2
The Mean Score of Sub variable Reading Habit Questionnaire (N=76)

Sub variable	Mean	Std.
Reading Attitude	40.1053	13.41500
Reading Frequency	14.8289	2.48402
Books Read	12.1579	1.85510
Reading Access	10.1842	2.18303

3.2 Results of Multiple Intelligences Questionnaire

It was revealed that from the questionnaire, the nine aspects of intelligences were all perceived by the students with different numbers: only 3 students who have one dominant intelligence. They were logical, kinesthetic, and intrapersonal intelligence, 7 students had two dominant intelligences, 11 students had three dominant intelligences, and 4 students had four dominant intelligences, 9 students had five dominant intelligences, 12 students had six dominant intelligences, 9 students had seven dominant intelligences, 6 students had eight dominant intelligences, 9 students had nine intelligences and 6 students did not have any dominant intelligences. The details are as follows:

Table 3
Distribution of Students' Multiple Intelligences

No.	Multiple Intelligences	Frequency	%
1.	Naturalistic Intelligence	0	0%
2.	Musical Intelligence	0	0%
3.	Logical Intelligence	1	1.31%
4.	Existential Intelligence	0	0%
5.	Interpersonal Intelligence	0	0%
6.	Kinesthetic Intelligence	1	1.31%
7.	Verbal Intelligence	0	0%
8.	Intrapersonal Intelligence	1	1.31%
9.	Visual Intelligence	0	0%
10.	Two Dominant Intelligences	7	9.21%
11.	Three Dominant Intelligences	11	14.4%
12.	Four Dominant Intelligences	4	5.26%
13.	Five Dominant Intelligences	9	11.8%
14.	Six Dominant Intelligences	12	15.7%
15.	Seven Dominant Intelligences	9	11.8%
16.	Eight Dominant Intelligences	6	7.89%
17.	Nine Dominant Intelligences	9	11.8%
18.	No Dominant Intelligences	6	7.89%
Total		**76**	**100%**

3.3 Results of Writing Mastery Test

The results showed that the lowest score of the writing test was 13.7 out of 30 and the highest score was 26.3 out of 30. For each category, 4 students had excellent writing mastery in the range of 25-30. It means that those four students are knowledgeable to assign topic, the students are to give ideas clearly stated and well organized, the students have few errors of tenses or word order, and they are able to demonstrate writing mechanics. More than a half of the students or 44 students were categorized good in the range of 19-24, followed by the score range of 13-18 categorized enough with 28 students. It means those students who are categorized good and average have been able to develop topic given but they still lack of detail. Although those students loosely organized, they are able to stand on main ideas. Those students still have major problems in construction because of several errors of language use. Surprisingly, none of them had failed category score in the range 1-6 and poor category score in the range 7-12. The distribution is presented in the following table:

Table 4.
Distribution of Students' Writing Mastery

No.	Score Interval	Category	Number of Students	Percentage
1.	25-30	Excellent	4	5.26%
2.	19-24	Good	44	57.8%
3.	13-18	Enough	28	36.8%
4.	7-12	Poor	0	0%
5.	1-6	Failed	0	0%
Mean				**33.3%**

Writing mastery consists of ideas, thesis voice audience, organization, mechanic, and vocabulary. The mean score of ideas was 4.2684, standard deviation was .66837. The mean score of thesis voice audience was 4.0171, standard deviation was .59226. The mean score of organization was 3.9026, standard deviation was .69301. The next was mechanics. Its mean score was 3.7868 and the standard deviation was .63337. The last was vocabulary . Its mean score was 4.0276 and the standard deviation was .61765 .

Table 5
The Mean Score of Writing Mastery Aspects (N=76)

WM Aspect	Mean	Std.
Ideas	4.2684	.66837
Thesis Voice Audience	4.0171	.59226
Organization	3.9026	.69301
Mechanics	3.7868	.63337
Vocabulary	4.0276	.61765

3.4 Correlation between Reading Habit and Writing Mastery

Pearson Product Moment Correlation was applied in order to find whether or not there was any significant correlation between the students' reading habit and their writing mastery. The result of the correlation coefficient or the r-obtained between the students' reading habit and their writing mastery was (-.082) with the p- value (.482) in which it was higher than alpha level of 0.05 showing that there was no significant correlation between reading habit and writing mastery.

In addition, multiple correlation analysis was conducted to see the correlation between reading habit (total) and the aspects of writing mastery, between writing mastery (total) and the aspects of reading habit, and between the aspects of reading habit and the aspects of writing mastery. The results revealed that writing mastery (total) was significantly correlated with one of the aspects of reading habit that was

reading attitude with the p-value .018. However, Reading habit (total) was not significantly correlated with the aspects of writing mastery. Moreover, the results of correlation between the aspects of reading habit and the aspects of writing mastery showed that only reading attitude had significant correlation with the ideas and thesis voice audience. The p-values were .001 and .040 respectively.

Table 6. Correlation between Reading Habit and Writing Mastery

		WritingMastery	Ideas	Thesis_Voice	Organization	Mechanics	Vocabulary
READING_HABIT	R	-.082	-.110	-.141	-.010	-.025	-.047
	Sig. (2-tailed)	.482	.343	.225	.935	.828	.687
	N	76	76	76	76	76	76
RA	R	-.271*	.367**	-.236*	-.223	-.146	-.201
	Sig. (2-tailed)	.018	.001	.040	.052	.207	.081
	N	76	76	76	76	76	76
RF	R	-.024	-.035	-.051	.075	.015	-.063
	Sig. (2-tailed)	.838	.767	.659	.517	.900	.589
	N	76	76	76	76	76	76
BR	R	-.122	-.159	-.163	-.028	-.053	-.177
	Sig. (2-tailed)	.293	.169	.160	.808	.651	.126
	N	76	76	76	76	76	76
RACC	R	.057	.028	.001	.107	.092	.069
	Sig. (2-tailed)	.625	.812	.996	.357	.427	.552
	N	76	76	76	76	76	76

3.5 Correlation between Multiple Intelligences and Writing Mastery

In line with reading habit, the result of correlation analysis between students' multiple intelligences and their writing mastery showed that the correlation coefficient (r = -.124) with the p-value (.286) was higher than 0.05. It means that H_O was accepted and H_1 was rejected. In short, there was no correlation between the students' multiple intelligences and their writing mastery. Further correlation was also applied to see the correlation between writing mastery (total) and the aspects of multiple intelligences, between multiple intelligences (total) and the aspects of writing mastery, and between the aspects of multiple intelligences and the aspects of writing mastery. The results revealed that writing mastery (total) was significantly correlated with one of the aspects of multiple intelligences that was logical intelligence with the p-value .038. However, only two aspects of multiple intelligences, they are logical and intrapersonal intelligence had significant correlation with the aspect of writing. That is ideas. The p-values were .020 and .029 respectively.

Table 7. Correlation between Multiple Intelligences and Writing Mastery

		Writing Mastery	Ideas	Thesis Voice	Organization	Mechanics	Vocabulary
MULTIPLE INTELLIGENCES	R	-.124	-.204	-.130	-.041	-.043	-.120
	Sig. (2-tailed)	.286	.077	.263	.724	.709	.302
	N	76	76	76	76	76	76
NATURALISTICS	R	-.015	-.120	-.066	.060	.125	-.111
	Sig. (2-tailed)	.896	.302	.569	.608	.281	.341
	N	76	76	76	76	76	76
MUSICAL	R	.006	-.102	-.048	.083	.147	-.096
	Sig. (2-tailed)	.957	.379	.681	.474	.206	.408
	N	76	76	76	76	76	76
LOGICAL	R	-.238*	.267*	-.175	-.175	-.219	-.179
	Sig. (2-tailed)	.038	.020	.130	.130	.057	.122
	N	76	76	76	76	76	76
EXISTENTIAL	R	.043	.016	.030	.049	.056	.049
	Sig. (2-tailed)	.712	.893	.797	.672	.631	.673
	N	76	76	76	76	76	76
INTERPERSONAL	R	-.046	-.088	-.068	.018	-.024	-.061
	Sig. (2-tailed)	.691	.450	.560	.879	.838	.603
	N	76	76	76	76	76	76
KINESTHETICS	R	-.032	-.101	-.039	.028	-.010	.029
	Sig. (2-tailed)	.786	.384	.738	.812	.931	.801
	N	76	76	76	76	76	76
VERBAL	R	-.097	-.175	-.129	-.018	-.031	-.085
	Sig. (2-tailed)	.404	.131	.268	.880	.790	.466
	N	76	76	76	76	76	76
INTRAPER	R	-.220	.250*	-.151	-.154	-.209	-.170
	Sig. (2-tailed)	.056	.029	.192	.185	.071	.143
	N	76	76	76	76	76	76
VISUAL	R	-.184	-.218	-.179	-.144	-.091	-.152
	Sig. (2-tailed)	.112	.059	.121	.216	.434	.191
	N	76	76	76	76	76	76

3.6 Correlation between Predictor Variables (Reading Habit and Multiple Intelligences) and Criterion Variable (Writing Mastery)

In order to see the correlation between the predictor variables (reading habit and multiple intelligence) and the criterion variable (writing mastery), linear regression

analyses were applied. The results showed that the p-value .488 was higher than significance level .05. It means that there was no significant correlation between the predictor variables and the criterion variable

Table 8
Correlation between Predictor Variables and Criterion Variable (N=76)

Variable	R	R Square	F	Sig.
Predictor Variables and Criterion Variable	**.139**	**.019**	.724	.488

3.7 Contribution of Aspects of Predictor Variables (Reading Habit and Multiple Intelligences) to Criterion Variable (Writing Mastery)

Further regression analysis was also applied to determine the contribution of reading habit aspects and multiple intelligences aspects to the writing mastery (total). The result showed that only reading attitude significantly contributed to writing mastery. The adjusted R square was .073. It means that the contribution of reading attitude to the writing mastery was 7.3%.

Table 9
The Contribution of Aspects of Reading Habit to Criterion Variable

Model	R	R Square	Adjusted R Square	F	Sig.
1	.271[a]	.073	.061	5.860	.018

Dependent Variable: WRI_MASTERY

a. Predictors: (Constant), RA

4. Discussions

Some interpretations are drawn on the basis of the results of the data that were calculated statistically. Firstly, it was found out that, most undergraduate EFL students of Sriwijaya University were in average reading habit (38) and there were many students (37) who experienced high level of reading habit. The explanations for the result above, some respondents made reading as their one favourite activity to spend their free time when they were at out of the class or home without being forced to. For this kind of reading habit level, they like to read just for pleasure they have some favourite fun books to be read such as cartoons, tales, short stories myths and documentaries. It is a good for the starting point of the lecturers to build up students' reading habit, as Leonhardt (1995, p. 44) says that one of the steps to build reading is to read fun books, such as caricature, short story, funny, and biography book. It is also strengthened by Guthric, Hoa, Wigfield, Tonks, Homerick, and Little (2006) who say that engaged reader are intrinsically motivated to read for knowledge and enjoyment. To sum up, by letting students read what they want to read can develop their reading habit.

On the other hand, besides average reading habit level, there were some students who were on the level of very good reading habit. In this kind of level, they could

suggest title of English books to their friends when they were talking about something. Actually, it was a very good guide for those who just have average reading habit to motivate them to read more often by seeing their friends' habit. As agreed by Ogus and Yildis (2009) suggest that the joy and enthuasiasm of reading cannot be taught but modeled.

Second, it was found that most undergraduate EFL students of Sriwijaya University had 6 dominant intelligences (12). It showed that students have more knowledges and skills. As we know that in the teaching and learning process, intelligence is very needed by them. Gardner emphasizes that we all have the multiple intelligences (linguistic, logical-mathematical, spatial, bodily-kinesthetic, musical, interpersonal, intrapersonal, naturalist, and existential). But we single out among them as a strong intelligence, an area where person has considerable computational power (Strauss, 2013). Armstrong (2013), Gardner, Pope, Qualter, Hutchinson, and Whiteley (2012) claim that one's multiple intelligences can play begin to evolve when we look at how the brain sets out to experience the actual act of reading and writing.

Armstrong (2002) states that there are some individual differences of the language learners that can influence the extent to which they learn the second/foreign language. One of them is cognitive variable, which is intelligence. Lipi (2013) also argues that the capacity of students' intelligene has proven to affect the outcome of their study, associated with higher academic achievement. Some researchers have explored in undergraduate student that intelligence is foretoken of academic achievement (Habibollah, Rohani, Tengku & Jamaluddin, (2009); and Koura and Al-Hebaishi, (2014). Most undergraduate EFL students of Sriwijaya University (44) were in good writing mastery. Brown (2004) states that the students who are in the good level of writing mastery are able to write a good paragraph with the appropriate structure, grammar, mechanics and other aspect of writing. Since having a good mastery in writing plays a pivotal role in achieving success (Marzban & Sarjami, 2014). Among other skills, writing is a fundamental language skill that is vital to academic successs and a basic requirement for participation in civic life and global economy (Asmari, 2013; and Graham & Perin, 2007).

Based on the Pearson Product Moment correlation, the correlation coefficient between students' reading habit and writing mastery was -0.082 with the significance value was 0.482. The result showed that a negative and insignificant correlation between reading habit and writing mastery. It could be concluded that both of the variables did not have direct relationship. When the value of reading habit rises, the value of writing mastery goes down and applied vice versa.

This is in contrast with the finding of study done by Bansa (2014) which indicated that there was a positive relationship between students' reading habit and writing mastery. Students who had a good habit in reading are enthusiastic, eager to work hard, concentrate on the tasks given, willingly confront challenges, and could even motivate and help others, facilitating collaborative learning.

Additionally, a closer observation at the correlation among variables and the aspects them was done. The writing mastery had a negative and significant correlation with

one aspect of reading habit that was reading attitude with the correlation coefficient was -0.271 and the significance value 0.018. Then, the reading attitude had significantly correlated to the aspects of writing mastery, they are ideas with the correlation coefficient was -0.367 and the significant value 0.001, and thesis voice audience with the correlation coefficient was -0.236 and the significance value 0.040. The correlation was negative which means that the more negative the students' reading attitude, the lower their writing mastery. Kush, Marley, and Brookhart (2005) state that students' attitude towards reading are the leading factor that directly affects their reading comprehension and productive skill such as writing. Karim and Hasan (2007) also state that students' positive attitudes toward reading lead to positive reading experience which help the students to achiver higher academic performance. It is also supported by PIRLS (2006) states that the characteristics of reading attitude are students who enjoy reading and usually read more frequently and more widely (everyday or almost everyday), which in turn broadens their reading experience and improves their comprehension skills, motivation in the academic and non academic books, motivation in the family environment, reading frequency, and book read. So, it can be concluded that positive towards reading is very needed by students. Due to students who have good attitude toward reading, this attitude can help them be easy in learning process including in developing topic into the ideas and writing aspect such as thesis voice audience. Since through reading, students not only can get knowledge, ideas, information, and many others but also they can increase their academic achivement.

The result of correlation analysis between multiple intelligences and writing mastery showed that the correlation coeffiicient was -0.124 with the significance value 0.286 was higher than .05. Thus the findings proved that Ho failed to reject which meant there was insignificant negative correlation between multiple intelligences and writing mastery. It could be concluded that both of the variables did not have direct relationship. When the value of multiple intelligences rises, the value of writing mastery goes down and applied vice versa. The study also reveals that the participants used different intelligence and there was no right or wrong classifications as everyone used the appropriate intelligence that brought some degree of learning as an out come at the end. Further correlation also revealed that only one aspect of intelligence significantly correlated to the aspect of writing mastery. That is logical intelligence ($r= -0.238$, $p= 0.038$). Meanwhile, there were also two aspects of multiple intelligences had statistically significant correlation with one aspect of writing mastery (ideas). They are logical and intrapersonal intelligence. The correlation coefficient of logical intelligence was 0.267 with the significance value 0.020. Meanwhile, the correlation coefficient of intrapersonal intelligence was 0.250 with the significance value 0.029. Both of the results showed that Ho was rejected and H1 was accepted. On the other words, the more logical and intrapersonal intelligence students had, the more ideas they can explore. Armstrong (2009), the most appearing intelligence means that the intelligence which is given more encouragement, enrichment, and instruction. It can be inferred that logical and intrapersonal intelligence of the Undergraduate EFL students of Sriwijaya University was more fostered than the other nine aspects of intelligence.

Gardner (1983) states that logical intelligence refers to the ability to analyze problems and issues logical, excel at mathematical operations and carry out scientific investigations. He also states that students who have high logical intelligence can use formal and informal reasoning skills such as deductive reasoning and to detect pattern. Meanwhile, Gardner (1983) states that intrapersonal intelligence refers to the knowledge of the self. The learners with this type of intelligence express preference for independent learning and engaging and individual assignments. These learners enjoy introspection and self-reflection, and are well aware of their abilities and limitations as language learners. In addition, McCellan and Conti (2008) describes the students with intrapersonal intelligence are comfortable with themselves, express strong like or dislike of particular activities, communicate their feelings, sense their own strengths and weaknesses, show confidence in their abilities set realistic goals, make appropriate choices, follow their instincts, express a sense of justice and fairness, relate to others based on their sense of self. According to a study conducted by Ikiz and Cakar (2010), intrapersonal intelligence was proved having positive and significant correlation to academic achievement. the findings showed that the students with higher intrapersonal intelligence got higher academic achievement. This was due to the fact that the students with this type of intelligence set realistic goals by themselves as learners (McKenzie, 2014) and sense their own weaknesses and strengths (McCellan and Conti, 2008). So, it can be implied that in developing ideas in writing, logical and intrapersonal intelligence are required.

In order to see the correlation between predictor variables (reading habit and multiple intelligences) and criterion variable (writing mastery), linear regression analyses were applied. The result showed that the correlation coefficient between predictor variables and criterion variable was 0.139 with the significance value 0.488. It means that Ho filed to reject. In brief, there was no significance correlation between predictor variables and criterion variable. It indicated that whatever the reading habit and multiple intelligences the students had, their writing mastery would not be too much influenced.

Even though there was no significant correlation between reading habit and writing mastery, multiple intelligences and writing mastery, predictor variables and criterion variables, Further regression analysis still needed to be applied to determine the contribution of reading habit aspects to the writing mastery, and the contribution of multiple intelligences aspects to the writing mastery. It was revealed that one of the aspects of reading habit contributed significantly to the writing mastery. Reading attitude contribution was 7.3% to writing mastery. On the other hand, the result showed that none of the aspects of multiple intelligences significantly contributed to writing mastery.

It can be inferred that when students' reading attitude increased they can acquire the writing mastery better, resulting in higher writing mastery. On the other hand, when their reading attitude decreased, writing mastery would also decline. Thus, multiple intelligences contributed to students' writing mastery.

5. Conclusions

The aims of the study were to investigated the correlation between the students' reading habit and their writing mastery, the correlation between the students' multiple intelligences and their writing mastery, the correlation between the predictor variables (the students' reading habit and multiple intelligences) and the criterion variable (the students' writing mastery). There were three variables involved: one criterion variable (students' writing mastery) and two predictor variables (reading habit and multiple intelligences) in this correlational study.

Some conclusions can be drawn from the result of the study. First, there was no significant correlation between reading habit and writing mastery of English Education Study Program Students of Sriwijaya University. One of aspects of reading habit, reading attitude, was significantly correlated to writing mastery and some aspects of it. Second, there was no significant correlation between multiple intelligences and writing mastery of English Education Study Program Students of Sriwijaya University. And third, there was no significant correlation between predictor variables (reading habit and multiple intelligences) and criterion variable (writing mastery).

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