



## Multiple Intelligence-based Activities: Its Effects on Essay Writing Skills

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## Aktivitas Berbasis Kecerdasan Majemuk: Pengaruhnya Pada Keterampilan Menulis Esai

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### ABSTRACT

*Writing an English essay requires complex abilities, such as critical thinking and academic writing. Nevertheless, it seems to be an obstacle to developing essay writing skills. Besides they are using a foreign language, the learning activities did not accommodate their personal traits and learning styles. This study aims to find out the profile of PGSD students' Multiple Intelligence (MI) and the effect of MI-based learning activities on their essay-writing skills. This experimental research was conducted at Universitas Muhammadiyah Magelang in 2020. Furthermore, 60 out of 160 fourth-semester students at the Elementary School Teacher Education Department were involved as the sample. The primary data were obtained through tests supported by observation and interviews. The data were distributed to be normal and homogenous. Based on the statistical data analysis of the Independent t-test, Sig. (2-tailed) was  $0.900 > 0.05$ . The average scores of the Experimental Group post-test also indicate higher than the one of the control group post-test scores. It concludes that MI-based activities influenced students' essay-writing skills. The results could be a beneficial reference in promoting students' essay-writing skills in higher education.*

**Keywords:** *essay, multiple intelligence, writing*

Menulis esai bahasa Inggris memerlukan kemampuan yang kompleks, seperti berpikir kritis dan menulis ilmiah. Namun hal ini yang seringkali menjadi kendala dalam pengembangan keterampilan menulis esai. Selain menggunakan bahasa asing, pembelajaran yang dilakukan juga tidak mengakomodasi sifat pribadi dan gaya belajar peserta didik. Penelitian ini bertujuan mengetahui profil *Multiple Intelligence* (MI) mahasiswa PGSD dan pengaruh aktivitas berbasis MI terhadap keterampilan menulis esai mereka. Penelitian eksperimental ini dilakukan di Universitas Muhammadiyah Magelang pada tahun 2020. Kemudian 60 dari 160 mahasiswa semester IV Program Studi Pendidikan Guru Sekolah Dasar Universitas Muhammadiyah Magelang dilibatkan sebagai sampel. Data primer diperoleh melalui tes yang didukung dengan observasi dan wawancara. Data terdistribusi normal dan homogen. Berdasarkan analisis statistik uji-t Independent diperoleh Sig. (2-ekor)  $0,900 > 0,05$ . Nilai rata-rata posttest Kelompok Eksperimen juga ditemukan lebih besar dibandingkan dengan nilai rata-rata posttest kelompok kontrol. Hal ini menyimpulkan bahwa aktivitas berbasis MI berpengaruh terhadap keterampilan menulis esai mahasiswa. Hasil ini dapat pula menjadi referensi yang bermanfaat dalam meningkatkan keterampilan menulis esai di level perguruan tinggi.

**Kata Kunci:** *esai, kecerdasan majemuk, menulis*

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## INTRODUCTION

Writing, as one of language skills, really demands people's ability of thinking, analyzing, composing utterances, and deciding the appropriate way to deliver their thoughts. It is also a way to react to the environment or particular phenomena. They could be conveyed through simple utterances, messages, announcements, essays, papers, or even a research reports. In higher education levels, writing is not merely described as activities of retelling or explaining a certain topic. In the Academic Writing class, students are expected to be able to convey their arguments through an essay writing activities.

As matter of fact, composing essays in foreign language is not as easy as writing in their first language. Students do not have enough chance to practice the language. It is hard for students to start and build paragraphs. Even they have idea in minds, it does not mean it can be delivered easily. They are rather difficult to compose and organize sentences. Based on the preliminary study conducted in the writing class in Muhammadiyah University of Magelang, there were problems that students face such as inaccurate grammar, inaccurate diction, improperly written paragraphs, unorganized paragraphs, and lack of vocabulary. There were problems encountered in writing essays such as articles (21%), misplaced words (9.3%), word classes (16.3), structures (23.2%), format (30.2%) (Rahmatunisa, 2014). It may be caused by several factors, for instance students' motivation, interests, learning styles. Inappropriate method applied in their learning activities may contribute to this problem.

Applying a suitable learning design might facilitate students in improving their writing skills. A number of methods as efforts to ease the difficulties in writing has been conducted for instance Grammar Translation Method, constructivist method, suggestopedia, and Genre-based Approach. When teacher still becomes the center of knowledge, the learning objective is hard to achieve. Learner-centered methods are now more explored to lead a successful learning. Learners do not succeed in the same way. They have their own path to pass through (Teele, 2000). Thus a teacher had better consider students' learning styles when planning a learning (Gündüz & Ünal, 2016). Multiple Intelligence Theories (MIT) put forward by Howard Gardner in 1983 stated that each individual is unique and each individual has their own learning process. There are at least eight types of intelligence and each individual is different from one another in terms of the dominant type of intelligence (Gardner, 1993).

Several studies have been carried out related to the implementation of Multiple Intelligences (MI) theory in the English Language Teaching class including writing classes (Naseri & Ansari, 2013; Sadeghi & Farzizadeh, 2012; Saeidi & Karvandi, 2014; Zarei & Mohseni, 2012). They examine the relationship of the theory such as intelligence profile with writing skills. Positive relationship between MI-based learning with Grammar accuracy is also revealed (Shayeghi & Hosseinioun, 2015). Findings also underline the importance of multiple intelligence theory on writing skills (Eng & Mustapha, 2010). According to previous studies, learners' multiple intelligence play significant roles in developing their writing skills. Hence it can be assumed exploring the extent of implementation of MI theory may contribute to language teaching and learning.

However, we find studies exploring the effect of MI-based learning on essay writing skills very limited. Gündüz & Ünal (2016) examines the effect of MI-based learning on essay writing classes but it focuses on Language learners at the elementary school level. A research conducted by Eng & Mustapha (2010) does not explain more about the MI- based activities and the instrument is employed for the writing skills in general. Hence there is a need of research on such issue in higher education level. This study aims to explore MI-based activities specifically the effect on students' essay writing skills on university students. Its difference also lies in the evaluation of essays which covers organization, content, grammar, and language structure aspects. In addition, it also explores the effect

of each dominant type of intelligence in the sample group. Thus it attempts to investigate the effects of MI-based activities on essay writing skills. Regarding this objective, the questions below are sought to be answered:

RQ1 (Research Question 1): What is the profile of students' intelligence types?

RQ2 (Research Question 2): Do MI-based activities affect students' essay writing skills?

## METHOD

This study basically employed quantitative approach to answer the research questions. It used experimental design with a pretest posttest control group design. This research was conducted at the University of Muhammadiyah Magelang in the academic year of 2021/2022. The population of this study were 160 students of PGSD University of Muhammadiyah Magelang. They were on 4th semester and taking an English course. 60 students were assigned as sample divided into 2 classes (experimental and control groups). MI-based learning writing activities were applied in the experimental group and the control group employed lecturing method in the learning process. An essay writing tests were taken by both groups as pretest and posttest.

RQ1 required data related to the profile of students' multiple intelligence. It represented their dominant intelligence. The were obtained through questionnaires which items were adapted from the Rogers indicators. This questionnaire was a Likert type presented 64 questions. Each intelligence type consisted of 8 statements. Students were required to choose the options which indicated level of agreement and disagreement. The following is an example of the choices to each question (Vakili, 2013):

1 (indicates totally disagree)

2 (indicates disagree)

3 (indicates slightly agree)

4 (indicates extremely agree)

The data regarding dominant type of intelligence were used as a base of how learning strategy was developed. Here the treatment was given to experimental group.

RQ 2 required data which represented students' skills on writing English essay. It assigned pretest and posttest where students were asked to write an essay. Then, a set of rubrics which covered format, content & organization, coherence, unity, grammar, and language structure adopted from Oshima & Hogue (2007) were adopted to grade their works.

To answer RQ1, the data were analyzed with descriptive statistics which presented dominant type of intelligence. RQ2 was statistically answered through an independent t-test. The hypotheses were stated as follows:

Ha: MI-based activities affect students' essay writing skills.

## RESULTS AND DISCUSSION

### Students' Multiple Intelligence Profiles

There were two Research Questions in this study. The first question was related to students' Multiple Intelligences profile. A set of survey questionnaire adopted from Rogers Indicators was assigned to obtain the data. The frequency of each intelligence was presented as follows:

**Table 1. Frequency of Population's MI Type**

Type of Intelligence	Number of Students
Linguistic	3
Musical	4
Logical Mathematic	7

Visual Spatial	2
Kinesthetic	5
Intrapersonal	16
Interpersonal	11
Naturalistic	12
Total	60

Table 1 showed the types of intelligence and their frequency of 60 respondents. There were 16 students who had intrapersonal as their dominant intelligence. While interpersonal learning styles was owned by 11 students. And naturalistic as a dominant intelligence was represented by 12 students. The treatment was only applied in the experimental group so a profile of multiple intelligence of this group was required to present.

**Table 2. Frequency of Experimental Group's MI Type**

Type of Intelligence	Number of Students
Linguistic	1
Musical	2
Logical Mathematic	4
Visual Spatial	1
Kinesthetic	2
Intrapersonal	6
Interpersonal	6
Naturalistic	8
Total	30

Table 2 presented that naturalistic, intrapersonal, and interpersonal were the dominant intelligence of the experimental group. This became a basic data to design the learning activities. The next step was to develop a learning design based on the dominant intelligence of the experimental group. As shown in Table 2, intrapersonal, naturalistic, and interpersonal were the dominant ones so the activities should be referred to them. It covered deciding the appropriate learning methods and media. The treatment was applied in academic writing class on the fourth semester. It was carried out through essay writing activities integrated with Multiple Intelligence Theory. The treatment was applied to the experimental class. The control one applied the existing learning method. The activities were carried out without taking Multiple Intelligence Theory as a base. The methods treated everyone in this group equally.

### The Effects of Multiple Intelligence

The second question required an answer whether or not Multiple Intelligence activities effect students' essay writing skills. After conducting the learning activities, both groups took a post test. The followings were the writing scores of theirs.

**Table 3. Frequency of Average Posttest Scores of Experimental and Control Group**

Group	Class Interval					Score Average
	60-65	66-71	72-77	78-83	84-90	
Experimental	0	4	6	12	8	79.50
Control	6	9	10	4	1	71.67

Table 3 showed the average scores of Posttest of both groups. average score of experimental group was greater than the one of control group. Eight students achieved very high-categorized score while there were only one students got the same level of achievement from control group. Most students got good level of achievement and only 4 students got low level in experimental group. It was different from what control group presented which most students got the fair level of achievement.

**Table 4. Output of Normality Test**

		Tests of Normality					
		Kolmogorov-Smirnov <sup>a</sup>			Shapiro-Wilk		
	Group	Statistic	df	Sig.	Statistic	df	Sig.
Writing	Experimental	.201	30	.003	.914	30	.019
	Control	.196	30	.005	.911	30	.015

a. Lilliefors Significance Correction

Table 4 showed the result of the Saphiro-Wilk test. It could be seen that the experimental group had a Sig. 0.19 > 0.05 while the control group had Sig. 0.15 > 0.05. Hence, data of dependent variable of each group were assumed to be normally distributed. Later, homogeneity of variances needed to be tested.

**Table 5. Output of Normality Test**

		Test of Homogeneity of Variances				
		Levene Statistic	df1	df2	Sig.	
Writing	Based on Mean	.016	1	58	.900	
	Based on Median	.029	1	58	.866	
	Based on Median and with adjusted df	.029	1	57.629	.866	
	Based on trimmed mean	.014	1	58	.905	

Based on statistical calculation of Lavene's Test, Table 7 showed that Sig. 0.900 > 0.05. Then it was concluded that variances were assumed to be homogeneous across the groups.

**Table 1. Output of Group Statistics**

		Group Statistics			
	Group	N	Mean	Std. Deviation	Std. Error Mean
Writing	Experimental	30	79.5000	5.77599	1.05455
	Control	30	71.6667	5.46672	0.99808

As presented in Table 6 there was a difference between the mean of both groups which experimental group got higher average score than the control one. It indicated that learning activities conducted in the experimental group gave positive effect on students' writing skills.

**Table 2. Output of Test of Hypothesis**

		Independent Samples Test								
		Levene's Test for Equality of Variances				t-test for Equality of Means				
		F	Sig.	t	df	Sig. (2-tailed)	Mean Difference	Std. Error Difference	95% Confidence Interval of the Difference	
									Lower	Upper
Writing	Equal variances assumed	.016	.900	5.395	58	.000	7.83333	1.45198	4.92689	10.73978
	Equal variances not assumed			5.395	57.825	.000	7.83333	1.45198	4.92670	10.73997

The hypothesis analysis in Table 7 presented that Sig. (2-tailed)  $0.900 > 0.05$ . It indicated that Multiple Intelligence-based activities gave an effect on students' writing skills. There were three intelligences integrated in the learning process, naturalistic, intrapersonal and interpersonal intelligence. Making use of this theory was manifested in the activities, for instance when students decided the theme of essay. They were free to choose it based on Letter from You in 2030 as the main topic. They were encouraged to explore the ideas in constructing the essay. This was in line with Brown (2001) emphasizing learners are better given chances to focus on message or content since they are center of learning and they are actually the language creators as well. Most of essay they explored had the theme of the natural state of the earth in 2030.

### The Learning Strategies

Writing requires learners to plan and clearly construct their imaginations, and express them in written words systematically as well (Akinwamide, 2013). Then Brown (2001) states process-oriented writing focuses on collaborative brainstorming, free writing, drafting, then group work of editing and revising. In line with this statement, actually some activities were provided to students, for instance finding the topic, brainstorming, building paragraphs, note making and summarizing, and proofreading.

The main goal of writing practice is how to make them writing effectively (Alodwan & Ibnian, 2014). Promoting their creative thinking and imaginations would be effective by relating to their personal traits. As the result of Multiple Intelligence profile, the strategies used in the learning process were developed in naturalistic, interpersonal and intrapersonal perspective.

Facilitating students with naturalistic as the dominant intelligence was attempted by observing natural things, involving nature in learning, and any activities related to organisms (Berman, 2002). Other alternative activities for this intelligence were also purposed such as reading about naturalist inventions and writing opinions about earth, living things, and disasters (Amstrong, 2009). In this study making use of this intelligence was applied in how the students read and decided a certain theme to explore. Then during the activities, they were asked to go out of the class and find the best place to explore their ideas. Brainstorming was one of exciting activities where they shared their comments in group discussion. The brainstorming created by the students were presented in form of colourful labels and design with some plant and leaves ornaments.



Another dominant intelligence found in the profile was intrapersonal one. Providing individual instruction, independent learning, building their self esteem were alternative activities facilitating this intelligence (Berman, 2002). During learning activities, students were asked to set their topic individually. Each week had its own objectives so students were required to make progress on their essay. In building paragraph, they should reference to the topic of Letter from You in 2030. It was really exciting where they could compose words based on their own perspective.

This study also facilitated interpersonal intelligence through the writing activities. Students with this intelligence have ability to interact with people effectively (Gardner, 1999). It could reflect in group work, cooperative learning, and peer tutoring (Berman, 2002). In this study it was accommodated through brainstorming, note making and summarizing activities where they could find the main ideas of certain texts or sources by group working. Then proofreading also facilitated them to interact each other. They shared their own essay in order to be reviewed by other students and returned back to be revised.

In relation to the type of intelligence, intrapersonal intelligence could help students improve their skills since they could assess their learning process. (Behjat, 2012). It represented in the building paragraphs activities where they compose their own words based on their favourite topic. Multiple Intelligence-based essay writing activities helped students develop their potential intelligence and understanding carefully the material presented (Saeidi & Karvandi, 2014). They encouraged them to reflect positively on experiences. Meanwhile, interpersonal type activities can be realized in discussion activities. They interacted with others by sharing their works to review and revise. This activity encouraged them to make their writing better and improve their analytical thinking at the same time.

Based on the observation, it showed that learners participated in learning activities enthusiastically. They got motivated to improve their understanding and skills. They enjoyed the activities since they were designed as appropriate as their personal traits. (Amstrong, 2003; Gardner, 1993). This was also supported by the results of interviews with 10 students, 9 of them stated that the learning they took gave a different atmosphere. They feel comfortable and enthusiastic during learning activities and they got faster in understanding the material. This finding is in line with Eng and Mustapha (2010) and Gündüz and Ünal (2016).

## **CONCLUSIONS AND RECOMMENDATIONS**

This study showed the dominant intelligences of the population. These were naturalistic, intrapersonal and interpersonal intelligence. This step was conducted to find the base of designing the learning strategies. Multiple Intelligence based activities gave enjoyable atmosphere in the learning process. Students were facilitated with activities which were suitable with their personal traits. It encouraged them to take a part of the learning process. This theory also facilitated them to learn the target language based on their own styles. As a result, these activities affected their essay writing skills positively. Furthermore, the impacts presented in the above explanations are not only beneficial to promote classroom activities but also expand researchers' view about personalized learning. It becomes a recommendation to other researchers in investigating differentiated learning in their research. Then, the result could also be recommended to be adopted by foreign language teachers of teenage or adult learners.

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