CHAPTER IV

RESULT AND DISCUSSION

This research aims at investigating whether 'there is any positive and significant correlation between multiple intelligences score and English national examination score of the ninth graders at SMP Muhammadiyah 9 Jojoran Surabaya'. This chapter deals with the implementation of MI in that school, presentation of the data, data analysis, findings and discussions. These findings and discussions are arranged and presented in such a way in which the research question became the basis or reference for the arrangement and presentation.

A. Implementation of MI in the School

This section discusses the data finding and the discussion about the implementation of multiple intelligences in English class in SMP Muhammadiyah 9 Surabaya.

Data about the implementation of multiple intelligences in English class in SMP Muhammadiyah 9 Surabaya were collected from interview with the headmaster and one English teacher. The interview with the headmaster conducted on June 16th, 2011 brings the following information.[1] First, the school has officially implemented the MI since 2009 although it had been piloted 2 years before. The implementation of MI program in this school was inspired by Mr. Munif Chatib, a consultant of education who brings multiple intelligences concept

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[1] Interview with the headmaster was in the headmaster office. (June 16th, 2011 at 14.00 pm)

to Indonesia. Since then this school started to join the program up to now. Second, the school uses MI research students' sheet data to know their students' MI. This research has been done twice in 2009 and 2010. Every student has to do the MI test every academic year.

Also, the interview with the English teacher conducted on August 12th, 2011 brings the following information.[2] First, the teacher told about the role of MI toward the increase of students' achievement. The role of MI research brought positive effect in teaching learning activity, particularly for the teacher in the class. She knew all the students talent condition by their tendencies of intelligences. There are differences between learning which uses MI strategy and the conventional one. The teacher stated that the students are happy in the learning process. She added that all of class programs were expected to help students on English national examination.

Second, the teacher role also affected the implementation of MI in the school. The teaching style of the teachers followed the students learning styles based on their intelligences. The teacher added that the teacher should master all learning styles of their learners in order to make variety of teaching style. So, the learning condition will make it easy for the students in absorbing the knowledge of subject. Also, it made their hidden potential to be exposed. The lesson plan of the subject was expected had various activities in every basic competence based on the multiple intelligences teaching strategies. The teacher also explained that

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[2]Interview with the English teacher was in the teacher office. (August 12th, 2011 at 13.00 pm)

all of processes in the school have made the teacher in the class took a part in reflecting and analyzing her teaching.

The roles of parents who did not support the students' intelligences and their tendencies in learning style are also instilled. The teacher said that almost all of students still need support from their parents which connected with the strategy used in the school.

And the last, the teacher explained about the problems she and her students faced. The expectation of multiple intelligences teaching strategies activities became the difficulty for the teacher while she taught in the classroom. The teacher just used a kind of multiple intelligences strategy to teach. Also, the teacher felt unsatisfied to the students' score of English national examination because some students failed.

B. Presentation of Data

In addition to the interview data about the implementation of MI in that school, the data about MI research and English national examination were also collected and are presented as follows.

1. Multiple Intelligences Research

Data about Multiple Intelligences (MI) research were collected from the documentation conducted on June 27th 2011. MI research is a research process which is found by observation and interview of GA (Guardian Angel) to the students in the school before enrolling a new academic year. Then, the result are analyzed by Next Worldview, an MI research and analysis

organization. Next Worldview analyzes tendencies of students' learning style based on their preference in research the students participated. Also, Next Worldview helps the teacher to analyze the teaching style that would fits with the students' learning style in order to increase the students' learning ability. Thus, the teacher found it easy when she taught in the class.

The researcher of GA had done the test on the different dates to 63 from 68 different students in the ninth grade of SMP Muhammadiyah 9 Surabaya. Five students were absent when the MI research was conducted. That is on the 1st, 2nd, and 3rd of July 2010. The result of the research was analyzed by an analyst from Next Worldview on 27th and 28th of July 2010 and 3rd, 4th, and 6th of August 2010. The result of the analysis is summarized in the following table.
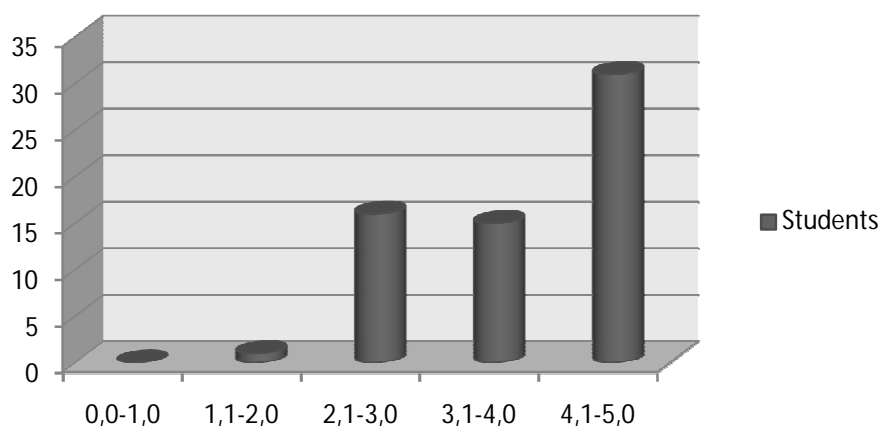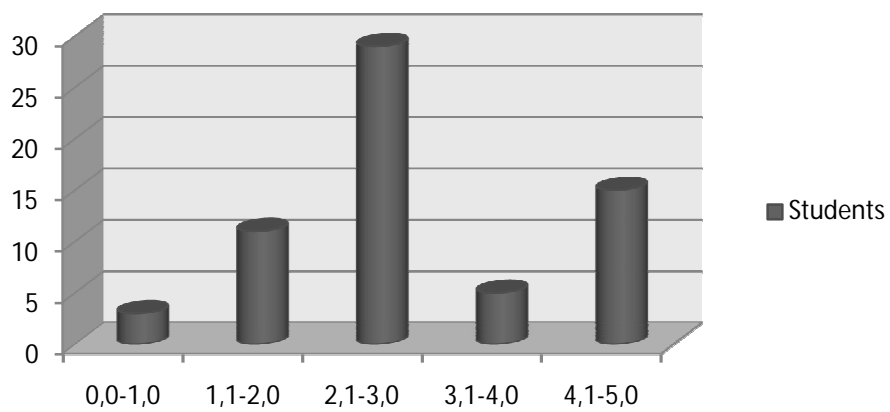
Table 1.2
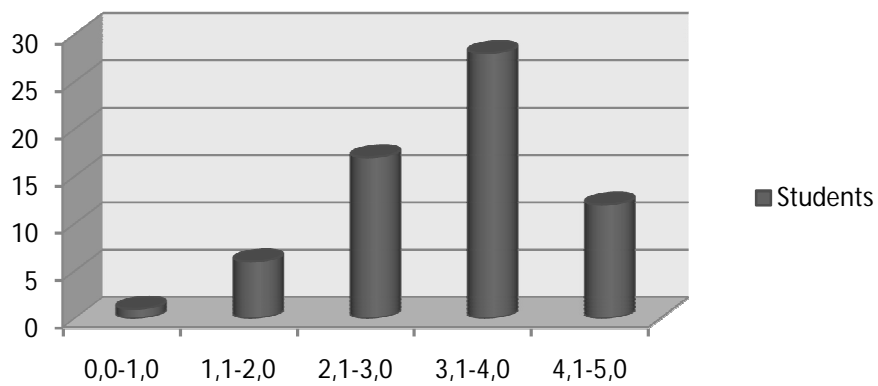**KINESTHETIC**

Table 1.4
MUSICAL

Table 1.3
INTERPERSONAL

Table 1.5
NATURALIST
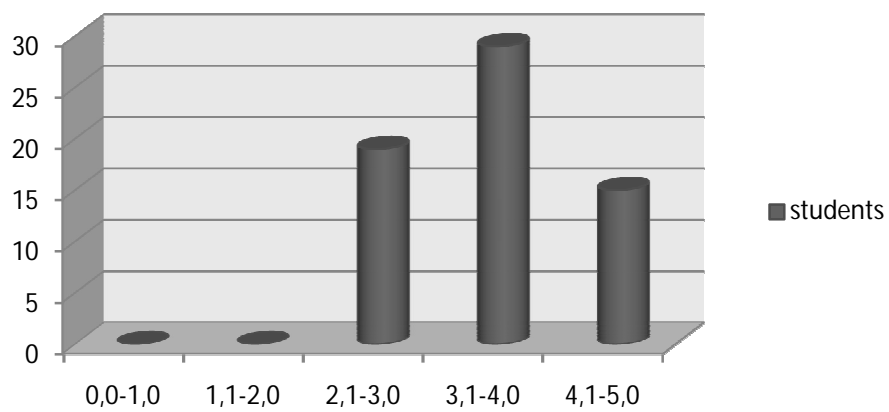
Table 1.6
SPATIAL
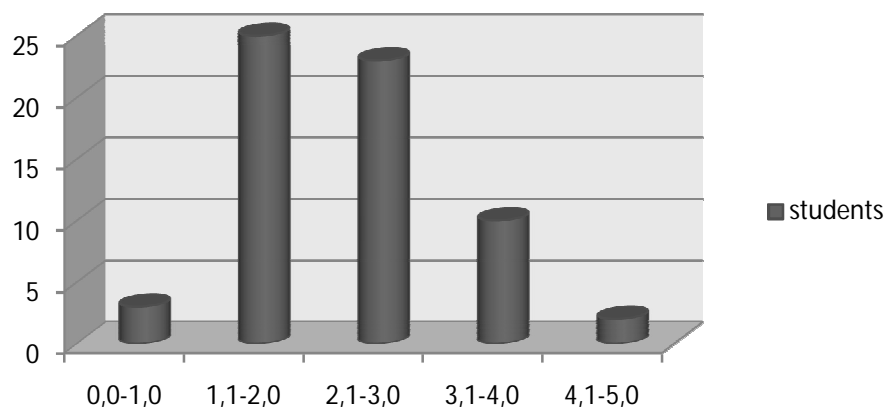
Table 1.7
LINGUISTIC
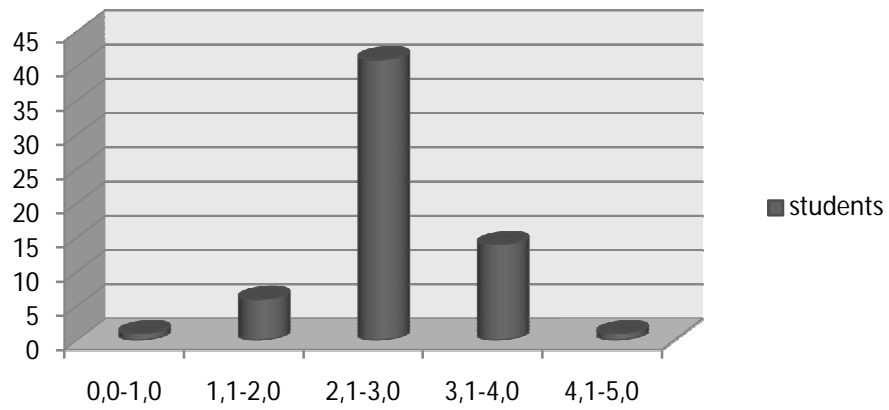

Table 1.8
INTRAPERSONAL
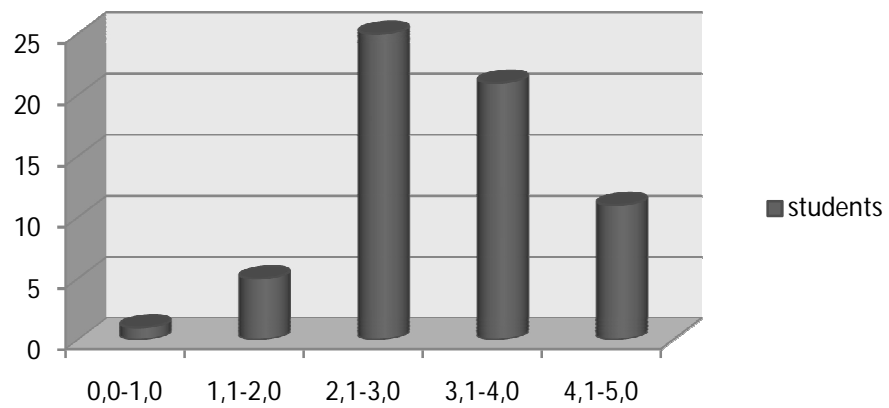
Table 1.9
MATHEMATIC AND LOGIC
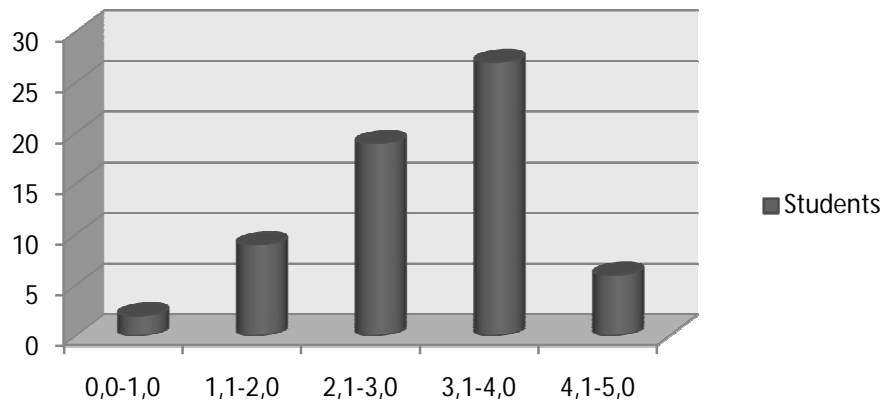
Note for Table 1.2 - Table 1.9:

0,0 - 1,0 = very low

1,1 - 2,0 = low

2,1 - 3,0 = enough

3,1 - 4,0 = strength

4,1 - 5,0 = very strength

The note above means that every student has a preeminent intelligence reaches the highest point in an aspect of intelligence than the others. Student who was analyzed as very well in kinesthetic intelligence for example, the MIR score sometimes got 4,1 – 5,0 or higher than other intelligences. Moreover, there were some students who got more than one a highest score in the sheet. It means that s/he has more than one supreme intelligence and some learning styles.

From the MI research, among 63 students, there were 33 students who got preeminent score of kinesthetic intelligence. Their scores range from 4,1 to 5,0. There were 2 students with supreme intelligence score of 3,7. The data suggest that 52,38% students had tendencies in this kinesthetic intelligence. This means that students' kinesthetic intelligence is well divided between those who have high and those who have low kinesthetic intelligence.

The result of MI research also shows that among 63 students, there were 17 students who got preeminent score of naturalist intelligence and 2 students with their supreme intelligence of 3,7. This means that 26,98% students (one fourth of the total number of students) have tendencies in naturalist intelligence.

Measured from the MI research, among 63 students, there were 11 students (17,46%) who got preeminent score of interpersonal intelligence. Their scores range from 4,1 to 5,0. Meanwhile, 13 students got preeminent score of musical intelligence with the scores range from 4,1 to 5,0. Only 1 students got her/his supreme intelligence of 3,7. The data suggest that 20,63% students have tendencies in musical intelligence. Moreover, in the intrapersonal intelligence there were 19,04% have tendencies in this intelligence (twelve students preeminent score and another one with supreme intrapersonal intelligence).

And the last, based on the MI research result, among 63 students there were 6 students who got preeminent score of mathematics and logic

intelligence. Their score range from 4,1 to 5,0. The data suggest that 9,52%

students had tendencies in mathematics and logic intelligence. Also, for the

spatial intelligence, 4,76% (3) students have preeminent score. This means

that students in majority have low spatial intelligence. Similar result appears

in the linguistic intelligence where there were only 3,17% students having

tendencies in linguistic intelligence (two students with preeminent and another

three with supreme linguistic intelligence).

2. English National Examination Score

The data about English national examination of students in the third

class of SMP Muhammadiyah 9 Surabaya score were collected on June 27th

2011 using documentation. The data are presented on the following table.

Based on the table above, among 63 students there were 3 students

who got the lowest score of English national examination. This makes them

failed the exam because the standard of completion is above 4.

The summary of the English national examination data are presented

the following table.

Table 1.10
Summary of English National Examination

No	Score Range	Number of Students
1.	0,00 – 3,40 (poor)	3
2.	3.41 – 6,70 (fair)	28

3.	6,71 – 10,0 (good)	32

The table above shows that there are 3 students who got score lower than 3,41. And there are 28 students who got average score in 3,41 to 6,70. The other 32 students got score between 6,71 to 10,0.

Students were evenly divided between those who got good and fair score were 50,8% and 44%. There is implicit information that there is no significance distinction between high and medium English national examination score.

C. Data Analysis

In this research, to know the correlation between multiple intelligence score and English national examination score were analyzed by SPSS 16.0. It was analyzed by statistical analysis using bivariate correlation. Bivariate correlation is used to know how close the relation between two variables and how the direction of the relation both of them. And, the coefficient of correlation shows the high relation which occurs between them.[3] Although the focus of this research is to find the correlation of two variables, it can be used to find the variable which has more than one sub variable as multiple intelligences.

To get the linear relationship between the multiple intelligences score and English national examination score, the value of significance from the output of SPSS with the level of significance 0,05 (α=0,05) was compared with the level of

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[3] Dwi Priyatno, *Mandiri Belajar SPSS.* (Yogyakarta: MediaKom, 2008), p.53.

significance. If the value of significance is higher than the level of significance ($\alpha \geq 0,05$) , so the null hypothesis is accepted. Therefore, if the value of sig is lower than the level of significance ($\alpha < 0,05$) , so the null hypothesis is rejected, it means alternative hypothesis is accepted. The result of the correlation of multiple intelligence score and English national examination score are presented by the following table.

Table 1.11
The Result of the Correlation between Multiple Intelligence Score and English National Examination Score

Intelligences		English National Examination
Kinesthetic	Pearson Correlation	-.103
	Sig. (2-tailed)	.424
	N	63
Interpersonal	Pearson Correlation	-.016
	Sig. (2-tailed)	.902
	N	63
Musical	Pearson Correlation	.155
	Sig. (2-tailed)	.224
	N	63
Naturalistic	Pearson Correlation	-.144
	Sig. (2-tailed)	.260
	N	63

Spatial	Pearson Correlation	.279[*]
	Sig. (2-tailed)	.027
	N	63
Linguistic	Pearson Correlation	.168
	Sig. (2-tailed)	.188
	N	63
Intrapersonal	Pearson Correlation	-.231
	Sig. (2-tailed)	.069
	N	63
Mathematic and Logic	Pearson Correlation	.182
	Sig. (2-tailed)	.152
	N	63
English National Examination	Pearson Correlation	1
	Sig. (2-tailed)	
	N	63

*. Correlation is significant at the 0.05 level (2-tailed).

**. Correlation is significant at the 0.01 level (2-tailed).

Based on the SPSS table above, the correlation between kinesthetic intelligence and English national examination describes as Pearson correlation = -0,103 and Sig. (2-tailed) = 0,424. It means that the variables are negatively

associated and the relationship between two variables is very weak. Thus, there is no significance correlation between kinesthetic intelligence and English national examination.

The SPSS table above shows that the correlation between interpersonal intelligence and English national examination describes as Pearson correlation = -0,016 and Sig. (2-tailed) = 0,902. It means that the variables are negatively associated and there is a very weak relationship between two variables. Thus, there is no significance correlation between interpersonal intelligence and English national examination.

The correlation between musical intelligence and English national examination in the SPSS table above describes as Pearson correlation = 0,155 and Sig. (2-tailed) = 0,224. This indicates no significance correlation between musical intelligence and English national examination because the variables are positively associated but there a very weak relationship between two variables.

The correlation between naturalistic intelligence and English national examination describes as Pearson correlation = -0,144 and Sig. (2-tailed) = 0,260. This shows no significance correlation between naturalistic intelligence and English national examination because the connections of the variables are negatively and there is a very weak relationship between the two variables.

The correlation between spatial intelligence and English national examination describes as Pearson correlation = 0,279 and Sig. (2-tailed) = 0,027. It describes that the variables are positively associated and there is a weak

relationship between two variables. Consequently, there is significance correlation between spatial intelligence and English national examination.

The correlation between linguistic intelligence and English national examination describes as Pearson correlation = -0,168 and Sig. (2-tailed) = 0,188. It presents no significance correlation between linguistic intelligence and English national examination because the variables are negatively associated and there a very weak relationship between two variables.

The correlation between intrapersonal intelligence and English national examination describes as Pearson correlation = -0,231 and Sig. (2-tailed) = 0,069. It designates that the variables are negatively associated and a very weak relationship between two variables. Accordingly, there is no significance correlation between intrapersonal intelligence and English national examination.

The correlation between mathematical intelligence and English national examination describes as Pearson correlation = 0,182 and Sig. (2-tailed) = 0,152. It assigns no significance correlation between mathematical and logic intelligence and English national examination because the variables are positively associated but there a very weak relationship between two variables

The analysis above suggests that the result that MI research did not show any correlation with English national examination. Based on the previous chapter, scores close to zero indicates the absence of a relationship between two variables. If the coefficient has a negative sign, then the variables are negatively associated. If the coefficient has a positive sign, then the variables are positively related.

Finally, after seeing the analyses above, there is an item that shows a significance correlation, exactly in spatial item, that is Pearson correlation = 0,279 and Sig. 2 tailed = 0,27. The variables are positively associated and the value of sig. is lower than the level of significance ($\alpha < 0,05$) , so the null hypothesis is rejected, it means alternative hypothesis is accepted.

D. Research Finding

In line with the research problem, the findings of this study are presented according to research question.

The findings of this research are:

1. The correlation between kinesthetic intelligence and English national examination is not significant (sig. = 0,424) and Pearson Correlation = -0,103. It means that the variables are negatively associated and there is a very weak relationship between two variables. Hence, the increase of student's kinesthetic intelligence score is not definitive in increasing the students' English national examination score.

2. The correlation between interpersonal intelligence and English national examination is not significant (sig. = 0,902) and Pearson Correlation = -0,016. It means that the variables are negatively associated and there is a very weak relationship between two variables. Hence, the increase student's interpersonal intelligence

score is not definitive in increasing the students' English national examination score.

3. The correlation between musical intelligence and English national examination is not significant (sig. = 0,224) and Pearson Correlation = 0,155. It means that the variables are positively associated and there is a very weak relationship between two variables. Hence, the increase student's musical intelligence score is not definitely in increasing the students' English national examination score.

4. The correlation between naturalist intelligence and English national examination is not significant (sig. = 0,260) and Pearson Correlation = -0,144. It means that the variables are negatively associated and there is a weak relationship between two variables. Hence, the increase student's naturalist intelligence score is not definitive in increasing the students' English national examination score too.

5. The correlation between spatial intelligence and English national examination is significant (sig. = 0,027) and Pearson Correlation = 0,279. It means that the variables are positively associated and there is a weak relationship between two variables. Hence, the increase students' spatial intelligence score is definitive in increasing the students' English national examination score too, and the conversely.

6. The correlation between linguistic intelligence and English national examination is not significant (sig. = 0,188) and Pearson Correlation

= 0,168. It means that the variables are positively associated and there is a very weak relationship between two variables. Hence, the increase student's linguistic intelligence score is not definitely in increasing the students' English national examination score.

7. The correlation between intrapersonal intelligence and English national examination is not significant (sig. = 0,069) and Pearson Correlation = -0,231. It means that the variables are negatively associated and there is a weak relationship between two variables. Hence, the increase of student's intrapersonal intelligence score is not definitive in increasing the students' English national examination score.

8. The correlation between mathematic and logic intelligence and English national examination is not significant (sig. = 0,152) and Pearson Correlation = 0,182. It means that the variables are positively associated and there is a very weak relationship between two variables. Hence, the increase of student's mathematic and logic intelligence score is not definitive in increasing the students' English national examination score.

E. Discussion

The discussion of this study is presented based the result of research finding and is discussed based on the review of related theory and analysis of the data to clarify the findings.

This research focuses on the correlation between multiple intelligences research and English national examination score in the third grade of SMP Muhammadiyah 9 Surabaya. And, the result of this research shows that mostly there is no significance correlation between multiple intelligences research and English national examination in the third grade of SMP Muhammadiyah 9 Surabaya.

Based on the findings and interview with the teacher there, the system of MIR did not run well in the implementing the subject learning in the school. It was because only a few of the teachers joined the training of MI system and only a few of the teachers understand MI system perfectly. So, the activity of learning process that should be interesting and comfortable became unsatisfying in the classroom. And also, to teach one basic competence actually should accommodate several MI items. However, only one item is implemented.

Moreover, the students did not have spirit and enthusiasm in learning new concept about MI system. They are not ready and have not adapted the system. They were only used to study in conventional learning style.

Besides, the roles of parents who did not support the students' intelligences and their tendencies in learning style are also instilled. They did not facilitate their children well in order to sharpen their intelligences so it affected in school learning process. Based on the chapter two, it showed about the functions of MI research. It has function as the recommendation to the parents to do many good habits or creative activity. It was suggested to implement many good habits

or activities in their children to decoy their children' talent, parents should pay attention about it.[4]

The other factor which affected negative correlation of multiple intelligences score and English national examination score is the teacher strategies. In the English subject, teacher should use multiple intelligences strategies to teach learners. Moreover, she should teach English by all strategies of multiple intelligences, so the learners absorbed all intelligences well. Then, the students will find their learning styles based on their tendencies in multiple intelligences. Thus, they would get satisfied score in English national examination.

But, in the learning process, mostly the teachers used kinesthetic item to their subject, especially in English subject. It is because the teacher looked at the result of MI research which indicated the students have preeminent intelligence in kinesthetic item. In fact, the correlation between kinesthetic intelligence score and English national examination is good. It proved from the data gotten. The percentage of students who have high score both in kinesthetic and English national examination or have low score both in kinesthetic and English national examination are 55,55%. It is higher than the percentage of students who have difference score in kinesthetic and English national examination.

However, the calculation through SPSS shows different result. The correlation between MI research and the result of students' English national

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[4]Munif Chatib, *Sekolahnya Manusia*… 150

examination score shows significant correlation with spatial intelligence. Spatial intelligence was easier to be understood than other items because many interesting activities which were conducted in the learning process, for example; body answer, Classroom Theater, body maps, hands-on thinking, and so forth. And, many theories about concept of spatial which used visual system applied in the classroom. It indicates that the students had good absorbency in visual system.

The finding shows that the Ho (null hypothesis) of the research is accepted for the majority of multiple intelligences items. Although the multiple intelligences score and English national examination score are correlated, it is differentiated by high or low correlation calculation. It is shown at the table of correlation above. Also, it can be known by seeing the relation of each score. If the MI score is high and English national examination is high, so the correlation is significant. Then, if the MI research score[5] is high and English national examination is low, and the conversely, so the correlation is not significant. So, the Ha is rejected for the variables, MI and English national examination. This means that MI has no significant correlation with the English national examination; i.e, MI is not definitive to the students' score in English national examination. Moreover, MI score could not predict English national examination score.

The other discussion is about dissimilar each of them. The results are negative and no significant correlate between those two variables because those

are different things. The multiple intelligences scores are learning style identification nevertheless English national examination scores are achievement test. The big affection is from teacher role while teaching in the learning process. S/he did not use many type of multiple intelligences.[6]

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[6]Thomas Armstrong, *Multiple Intelligences in the Classroom...* 56