

**THE INFLUENCE OF INTELLIGENCE QUOTIENT
AND EMOTIONAL QUOTIENT ON THE TENTH GRADE STUDENTS'
ENGLISH ACHIEVEMENT OF STATE SENIOR HIGH SCHOOL 6 OF
PALEMBANG**

Sri Hartati

Program Studi Pendidikan Bahasa Inggris Fakultas Keguruan dan Ilmu Pendidikan
Universitas Muhammadiyah Palembang
Hartatis2767@yahoo.com

Abstract

This study aimed for finding out whether or not (1) there is a significant influence of intelligence quotient on students' English achievement; (2) there is a significant influence of emotional quotient on students' English achievement; (3) there is a significant influence of intelligence quotient and emotional quotient on students' English achievement. The population of this study consisted of 223 students of the tenth grade student of senior high school 6 of Palembang. The sample was selected by using simple random sampling. The data were collected by using documentation, questionnaire, and tests. The data were analyzed by using descriptive statistic and inferential statistic (correlation and regression analyses), F-test for multiple correlation and t-test for partial correlation, significant 95% (0.05) by SPSS version 15. The result showed that there was a low correlation of intelligence quotient on students' English achievement ($r=0.364$); there was a low correlation of emotional quotient on students' English achievement ($r=0.368$); there was an enough correlation of intelligence quotient and emotional quotient on students' English achievement ($r=0.468$). The influence of intelligence quotient was 0.133 (13.3%) on students' English achievement. The influence of emotional quotient was 0.136 (13.6%) on students' English achievement. The influence of intelligence quotient and emotional quotient were 0.219 (21.9%) on students' English achievement. The variability of students' English achievement could be explained 21.9% by intelligence quotient and emotional quotient. The rest (78.1%) was determined by other factors.

Keywords: Influence, Intelligence Quotient, Emotional Quotient, and Students' English Achievement

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Introduction

Issues regarding performance are problems that always faced by education; therefore teachers need to know the factors that affect student achievement. These factors would make teachers to take the necessary policies, so they can improve the performance to match the expectations of the education. There are some factors influencing English achievement, Azwar (1996) says internal factors inducing learning involve five senses: interest, motivation, personality, talent, and intelligence. External factors include facilities, course materials, place and environment, culture and social support.

The statements of the experts above indicate that intelligence is one of

those factors, it can influence person in learning or getting knowledge and it plays role in one's success or failure in learning a language. In fact, in many studies done by some experts of psychologist, they find that there is a comparatively high relationship between intelligence and academic achievement. The correlation between subject matter achievement and intelligence are positive. One way that is often used to represent high or low level of intelligence is intelligence test results translate into numbers that can be a clue as the position of a person's intelligence level when compared relatively to a norm. Traditionally, the number of normative intelligence test results

expressed as a ratio (quotient) and named intelligence quotient (IQ).

A cognitive element considered plays a fairly important, it is called intelligence. Even the presumption sometimes arises that put intelligence in the part beyond the actual proportion. Some people think that high intelligence test is a guarantee of success in learning so that in the event of failure cases studied in children who have high IQ will cause an overreaction in the form of loss of confidence in the institutions that frustrate the child or the loss of confidence in the institution who gave the diagnosis IQ.

The assumption that a low IQ test result is the final verdict that the individual concerned may not achieve good performance. It is not only dropping self-esteem, but it also can break a person's motivation to learn. Students who have smartness look foolish for not having the motivation to achieve the best possible performance. It shows that if they have low learning motivation, they will not achieve a good academic record. By contrast, students are less intelligent, but highly motivated to learn, then they will achieve a good academic record.

The student achievement is not only seen from a perfect intelligence capability, but also the ability to control and manage oneself and the ability to build relationships with others. Such capabilities by Daniel Goleman calls Emotional Intelligence. There is various kind of definition of emotional quotient according to experts. Goleman (2005) states that emotional intelligence is the ability to monitor and control the feelings of self and others and use those feelings to guide thought and action, so that emotional intelligence is necessary for success in work and produce outstanding performance in job.

Goleman in Rachmi (2010) says that emotional and spiritual intelligence

accounts for 80% of the determinants of a person's success, while the other 20% is determined by IQ (Intelligence Quotient). Nowadays people began to realize at this point that not only intellectual excellence is needed to achieve success, but other skills are required to be ahead. Therefore, the term “Emotional Quotient (EQ)” or “Emotional Intelligence (EI)” became more popular for the people as the result of the lack of Intelligence quotient.

Recently phenomena, we are often treated to the spectacle and coverage, both on television, radio and newspapers about the conflict between students in Indonesia, which is at an alarming stage because it has claimed lives, free sex students were encouraged by the rise of porn sites, then the use of alcohol and drugs and the number of students who are absent during school hours. These phenomena, clearly contradicts the statement of national objectives as defined by *Undang-undang Republik Indonesia Nomor 20 Tahun 2003 Butir 3*. The special expertise of educators in understanding the process and the development of cognitive, affective, and psychomotor students really being prosecuted as if the behavior is not immediately overcome, do not expect the students to obtain optimal performance bench-quality school and their lives. Students who have high intelligence quotient turned out to have a high risk as well in the face of difficulties such as academic failure, alcoholism and crime. It's not because of their low IQ because their control over their social life disrupted.

The presence of emotional intelligence as one of the factors that affect a person's performance has invited the pros and cons among the experts. Gordon (in focus_online, 2004) argues that emotional intelligence is more to do with personality and mood (mood), while the best way to improve the

performance of the workers is the analytical skills and cognitive skills that play a role in this regard is his intellectual intelligence. Writing about issues states the experts still believe if someone has IQ scores are high, it will be more successful in their work.

The tendency that has been happening in the education where teachers are implementing external factors in teaching and learning process that is teacher just consider how transfer their knowledge to students with strategies that they think to improve students' achievement without considering internal factors, the factor about sense and how it should be implemented. One of internal factor is to understand how students from the point of view of psychology; intelligence quotient and emotional quotient.

Internal and external factors of students' achievement cannot be separated, as educators, teachers should master both. Teaching and learning process will achieve the target if the educators are trying to understand internal factors of students' achievement first. This study meant teachers must understand the condition of psychology students; then apply certain practices so that the learning process can go as the target. The researcher parables internal factors; intelligence quotient is seed and emotional quotient is land, while external factors parables like treatment plants in farming. Before giving treatment, we should study first seed and land who want to be treated according to the treatment of seeds and soil conditions to be the best quality plants.

In this study, the researcher is interested to study at the state senior high school 6 of Palembang because the school-based science and technology (IPTEK) and faith and piety (IMTAQ), which has made the integration of the concept of intelligence quotient and emotional quotient. Research on

intelligence quotient has been conducted by Hartati (researcher) when developing thesis studied at the tenth grade students of the state senior high school 6 of Palembang in 2010. One of factors that attracts researcher to re-investigate intelligence quotient combined with the emotional quotient because at the beginning of the study showed that only 1.9% intelligence quotient affects students' English achievement whereas they are smart students but why was intelligence quotient not so dominant to influence their English achievement? so what are another factors to influence students' English achievement? therefore, the researcher still curious about the internal factors that influence students' English achievement, the current study, researchers will try to add emotional quotient variable which is considered as second factor that greatly affect one's academic achievement.

This study are expected to provide benefits for educators especially teacher of English in order to understand the ability of students from the point of view of psychology; intelligence quotient and emotional intelligence, so that teachers easily understand and comprehend students and to improve or upgrade role of the educator well, while the input in order to increase the angle of view of good teaching in the school.

The study formulated the problems as follows:

1. Is there any significant influence of intelligence quotient on students' English achievement of the Tenth Grade Students of the State Senior High School 6 of Palembang?
2. Is there any significant influence of emotional quotient on students' English achievement of the Tenth Grade Students of the State Senior High School 6 of Palembang?
3. Is there any significant influence of intelligence quotient and emotional intelligence on students' English

achievement of the Tenth Grade Students of the State Senior High School 6 of Palembang?

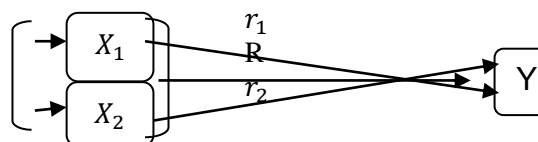
Methodology

The quantitative descriptive method was used in this study. The data was obtained by documentation (intelligence quotient), questionnaire (emotional intelligence) and English achievement test (listening, speaking, reading and writing). Both of two variables firstly was described, and then they was found the correlation, at the last they was found the determination of the independent variable on the dependent variable by simple regression technique. According to Hatch and Lazaraton (1991), Regression then is a way of predicting performance on the dependent variable via one or more independents variable ... simple regression is useful when we need to predict scores on a test on the basis of another test. The researcher of the study used this method because it was appropriate to describe the influence of the independent variable on the dependent variable.

Variables are the conditions or characteristics that the experimenter manipulates controls or observes (Best and Khan, 1993). There are two kinds of variables in this study, independent variable and dependent one. Independent variables as the conditions or characteristics that the experimenter manipulates or controls in his or her attempt to ascertain their relationship to observed phenomena. While dependent variables are those which appear, disappear, or change as the experimenter introduces, removes, or changes independent variables.

Research design was used causal design that aims to see the effect between the independent variables on the

dependent variable. The variables in this study are:



The independent variable (X_1) = Intelligence quotient

The independent variable (X_2) = Emotional quotient

The dependent variable (Y) = English achievement

Sugiyono (2012)

This study wanted to see the influence partially of X_1 to Y, X_2 to Y and then X_1 and X_2 simultaneously to Y. The characteristics of this study are;

1. Determine the effect of two independent variables partially and see the effect of the two variables simultaneously on the dependent variable.
2. Amount of the relationship is based on the correlation coefficient.

According to Arikunto (2010), population is all of investigated subject. If someone wants to investigate all of the elements in a research area, his research is population research. In addition, population refers to the entire group of people, events, or things of interest that the researcher wishes to investigate (Sekaran, 2000). The population of the study was taken from all of the tenth grade students at the State Senior High School 6 of Palembang. In the total, there were 223 students.

Arikunto (2010) states that if the number of the population is less than 100, all the population can be the sample of the research, if the number of the subject is more than 100, the sample taken from the population can be between 10-15% and 20-25% or more. From the population, the researcher was

taken 30% from 223 students as the sample. And it was 70 students as the sample by using random sampling.

Finding and Discussion

1. Hypotheses Test

a. The Correlation among Intelligence Quotient (X_1), Emotional Quotient (X_2) and Students' English Achievement (Y)

To find out whether or no significant correlation among Intelligence Quotient (X_1), Emotional Quotient (X_2) and English Achievement (Y) of the Tenth Grade Students of the State Senior High School 6 of Palembang, the researcher used the partial correlation. The following table 1 would show the correlation:

Table 1. Correlation among Intelligence Quotient (X_1), Emotional Quotient (X_2) and Emotional Quotient (Y)

Control Variables			IQ	EA	EQ
-none-(a)	IQ	Correlation	1,000	,364	,223
		Significance (2-tailed)	.	,002	,063
		Df	0	68	68
	EA	Correlation	,364	1,000	,368
		Significance (2-tailed)	,002	.	,002
		Df	68	0	68
	EQ	Correlation	,223	,368	1,000
		Significance (2-tailed)	,063	,002	.
		Df	68	68	0
EQ	IQ	Correlation	1,000	,311	
		Significance (2-tailed)	.	,009	
		Df	0	67	
	EA	Correlation	,311	1,000	
		Significance (2-tailed)	,009	.	
		Df	67	0	

Based on the correlation table above, at the first part; there was no control variable, it was found that English achievement Sig. was $0.002 < 0.05$ with $df=68$. It meant that variables were significant. Second part; there was control variable (EQ), it was found that English achievement Sig. was $0.009 < 0.05$. It meant that variables were significant. It showed that emotional variable correlated intelligence quotient and students' English achievement.

b. Regression Analysis among among Intelligence Quotient (X_1), Emotional Quotient (X_2) and Emotional Quotient (Y)

Regression analysis was used to determine the influence of variables that occur in the intelligence quotient, emotional quotient on students' English achievement, either partially or simultaneously. After processing the data so obtained linear regression as follows:

1. The Influence of Intelligence Quotient (X₁) on Students' English Achievement (Y) of the Tenth Grade Students of the State Senior High School 6 of Palembang

Table 2. The Result of Intelligence Quotient Test Partially Model Summary(b)

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	,364(a)	,133	,120	6,417

Based on the model summary table above showed that the amount of the correlation (R) intelligence quotient (X₁) on students' English achievement (Y) was 0.364 (36.4%) meant that the influence of variable intelligence quotient (X₁) on students' English achievement (Y) showed low correlation. The coefficient of determination was denoted by R Square (R²) was 0.133. It could be said that students' English achievement of the tenth grade senior high school of the state 6 of Palembang could be explained or influenced by the intelligence quotient and emotional quotient by 13.3% and the remaining 86.7% was influenced by other variables where not examined in this research model.

The restrictions previously it could be concluded that for students' English achievement of the tenth grade students of the state senior high school 6 of Palembang needed attention optimal for intelligence quotient.

2. The Influence of Emotional Quotient (X₂) on Students' English Achievement (Y) of the Tenth Grade Students of the State Senior High School 6 of Palembang

Table 3. The Result of Emotional Quotient Test Partially Model Summary(b)

Mode	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	,368(a)	,136	,123	6,407

Based on the model summary table above showed that the amount of the correlation (R) intelligence quotient (X₁) on Students' English Achievement (Y) was 0.368 (36.8%), it meant that the influence of variable intelligence quotient (X₁) on students' English achievement (Y) showed low correlation. The coefficient of determination was denoted by R Square (R²) was 0.136. It could be said that students' English achievement of the tenth grade senior high school of the state 6 of Palembang could be explained or influenced by the intelligence quotient and emotional quotient by 13.6% and the remaining 86.4% was influenced by other variables where not examined in this research model. The restrictions previously, it could be concluded that students' English achievement of the tenth grade students of the state senior high school 6 of Palembang needed emotional quotient optimal development.

3. The Influence of Intelligence Quotient (X₁) and Emotional Quotient (X₂) Simultaneously on Students' English Achievement of the Tenth Grade Student of the State Senior High School 6 of Palembang (Y)

On the basis of the results of research that has been done, it was seen that intelligence quotient and emotional quotient simultaneously influenced on students' English achievement of the Tenth Grade Student of the State Senior High School 6 of Palembang, after:

processing the data so obtained multiple linear regression as follows:

a. Multiple Linear Regression Analysis

To find multiple linear regression equation of Intelligence Quotient (X_1) and Emotional Quotient (X_2)

simultaneously on students' English achievement of the Tenth Grade Student of the State Senior High School 6 of Palembang (Y) need analyze multiple regression coefficients. By using SPSS program, the results of the analysis could be seen in table 4. as follows:

Table 4. The Result of Analisis Multiple Linear Regression and Significant Test The Influence (X_1) and (X_2) on (Y) Coefficients (a)

Model		Unstandardized Coefficients		Standardized Coefficients	T	Sig.
		B	Std. Error	Beta	Zero-order	Partial
1	(Constant)	28,293	9,652		2,931	,005
	IQ	,172	,064	,297	2,680	,009
	EQ	,121	,044	,302	2,726	,008

Based on constant table showed that Sig. was $0.005 < 0.05$, intelligence quotient Sig. was $0.009 < 0.05$, and emotional quotient Sig. was $0.008 < 0.005$, so H_0 was rejected, it meant that intelligence quotient and emotional quotient was significant influence students' English achievement of the tenth grade senior high school of the state 6 of Palembang.

Further processing of the data showed that the results of the regression coefficients for each dependent variable could be seen in table 4:

1. Intelligence quotient (X_1) was 0.172
2. Emotional Quotient (X_2) was 0.121

Based on the table parameter regression coefficients for each dependent variable could be made over a multiple linear regression equation as follows:

$$Y = 28.293 + 0.172 X_1 + 0.121 X_2 + e$$

This situation showed that the linear relationship between the Intelligence Quotient variable (X_1) and Emotional Quotient variable (X_2) simultaneously influenced on Students' English Achievement of the Tenth Grade

Student of the State Senior High School 6 of Palembang (Y). It meant that if there was an increasing the value of the variable intelligence quotient (X_1) and emotional quotient (X_2), the students' English achievement (Y) would increase, and vice versa, if a decline in intelligence quotient variable (X_1) and emotional quotient (X_2), the students' achievement English (Y) would decline as well.

- The constant $b_0 = 28.293$
It meant that if the intelligence quotient (X_1) and emotional quotient (X_2) distribution value was 0, so students' English achievement was positive at 28.293.
- Constant $b_1 = 0.172$
It meant that if the variable intelligence quotient (X_1) and emotional quotient (X_2) distribution value was fixed and students' English achievement 1 so students' English achievement would increase 0,172.
- The constant $b_0 = 0.121$
It meant that if the variable intelligence quotient (X_1) and emotional quotient

(X_2) distribution value was fixed and students' English achievement 1 so students' English achievement would increase 0.121.

b. Correlation Coefficient and Determination Simultaneously

Table 5. The Influence of Intelligence Quotient (X_1) and Emotional Quotient (X_2) on Students' English Achievement (Y) Model Summary(b)

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	,468(a)	,219	,196	6,134

Based on the model summary table above showed that the amount of the correlation (R) intelligence quotient (X_1) and emotional quotient (X_2) simotenously on students' English Achievement (Y) was 0.468 (46.8%), it meant that the influence of variable intelligence quotient (X_1) and emotional quotient (X_2) simultaneously influenced on students' English acievement (Y) showed enough correlation. The table above showed that the coefficient of determination was denoted by R Square

(R^2) was 0.219. It could be said that students' English achievement of the tenth grade senior high school of the state 6 of Palembang could be explained or influenced by the intelligence quotient and emotional quotient by 21.9% and the remaining 78.1% was influenced by other variables where not examined in this research model.

This condition showed that intelligence quotient and emotional quotient had important meaning on students' English achievement of the tenth grade student senior high school of the state 6 of Palembang. By considering aspects of intelligence quotient and emotional quotient would optimally improve students' English achievement of the tenth grade high school senior state 6 of Palembang.

c. Hypothesis Testing Regression Coefficients Simultaneously (Test-F)

This test was used to determine whether the independent variables: Intelligence quotient (X_1) and emotional quotient (X_2) simultaneously significantly influence on students' English achievement (Y), it could be seen in the table below;

Table 6. ANOVA (b)

Model		Sum of Squares	Df	Mean Square	F	Sig.
1	Regression	708,111	2	354,056	9,411	,000(a)
	Residual	2520,760	67	37,623		
	Total	3228,871	69			

Based on the Anova table above, it found that Sig. was $0.000 < 0.05$. so H_0 was rejected, it meant that intelligence quotient and emotional quotient simultaneously influenced on students' English achievement of the tenth grade students of the state senior high school 6 Palembang.

Conclusions

There were three hypotheses in this research. The conclusions of the hypotheses as follows:

Hypotheses 1: The intelligence quotient influences on students' English achievement of the Tenth Grade Students of the State Senior High School 6 of Palembang.

Based on the model summary (b) showed that the students' intelligence quotient influenced on students' English achievement of the tenth grade students of the state senior high school 6 of Palembang. Intelligence quotient influenced 13.3%. Theoretically, it showed that students' intelligence quotient was required on students' English achievement. This research proved Surip's research (1994) that the levels of the students' intelligence influence on student's English achievement. The students with high level of intelligence tend to be better in English achievement than they are with low level of intelligence. These studies indicated that the intelligence is one of the internal factors which may influence the students' achievement.

Hypotheses 2: The emotional quotient influences on students' English achievement of the Tenth Grade Students of the State Senior High School 6 of Palembang.

Based on the model summary (b) showed that the students' emotional quotient influenced on students' English achievement of the tenth grade students of the state senior high school 6 of Palembang. Intelligence quotient influenced 13.6%. Theoretically, it showed that emotional quotient was required on students' English achievement. This research proved Meyer's research (psikologi.com, 2004) that emotional intelligence is a factor that is as important as the combination of technical and analytical skills to produce optimal performance. One aspect of emotional intelligence is motivation and Salovey's research in Goleman (2005), as described before, to motivate yourself is the foundation of success and

realization of high performance in all areas. The students with high level of emotional quotient tend to be better in English achievement than they are with low level of emotional quotient. These studies indicate that the emotional is one of the internal factors which may influence the students' achievement.

Hypotheses 3: The intelligence quotient and emotional quotient influence simultaneously on students' English achievement of the Tenth Grade Students of the State Senior High School 6 of Palembang.

Based on the model summary (b) showed that the students' intelligence quotient and emotional quotient influenced on students' English achievement of the tenth grade students of the state senior high school 6 of Palembang. Intelligence quotient influenced 21.9%. Theoretically, it showed that intelligence quotient and emotional quotient were required on students' English achievement. This research proved Carusso's research (1993) that in the process of student learning, both intelligence quotient and emotional quotient are needed. IQ cannot function properly without the participation of the emotional appreciation of the subjects presented in school. Balance between intelligence quotient and emotional quotient are the key to student success in school. The students with high level of intelligence quotient and emotional quotient tend to be better in English achievement than they are with low level of intelligence quotient and emotional quotient. These studies indicate that the intelligence quotient and emotional quotient are two of the internal factors which may influence the students' achievement.

Based on some conclusions, the researcher has some suggestions to offer, firstly, schools are expected to hold a special ability test like intelligence and emotional quotient test. It is useful to find out more about psychological data of the students. Secondly, the distribution of class shall be based on the students' intelligence and emotional quotient. Therefore, the teachers of English can teach their student by using effective's methods. In addition, teachers are hoped to increase their student interesting and motivation for learning English in order to make their students obtain good achievement in English.

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