

# The Influence of Emotional Intelligence and Motivation on Learning Outcomes Science Students at Junior High School in Kendal

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## ABSTRACT

Education is a conscious effort to increase the potential of human resources. Indicators of educational success can be discovered through the achievement of competency in the learning outcomes. Learning outcomes are influenced by internal and external factors. Internal factors are psychological factors that include aspects of emotional intelligence and motivation. Emotional intelligence relies on the relationship between moral instincts that cover self-control, personal problem solving skills and the ability to self-motivate. This research aimed to determine the effect of emotional intelligence and motivation of 8<sup>th</sup> graders of State Junior High School in Kendal Municipality to the learning outcomes of science subject. The survey research was conducted on Even Semester of 2016/2017 Lesson Year by simple cluster random sampling technique. Questionnaires with Likert scale were used to determine the value of learning motivation and emotional intelligence of the students. While students learning outcomes were obtained through documentation of the score results of Even Semester Final Test for Science subject. Double Linear Regression Technique with significance level of 0.05 was used to analyze the data. The research results showed that there is a positive influence of Emotional Intelligence and learning motivation on the Science learning outcomes of High School Students in Kendal Municipality.

**Keywords:** Education, Learning Outcomes, Motivation, Emotional Intelligence, Science.

## INTRODUCTION

Education is one of the conscious efforts to develop and increase the potential of human resources. Encouraging and facilitating in teaching and learning activities, either formal or non-formal education is a step that can always be conducted. Learning has a wide scope in various disciplines. Learning also has an important role in maintaining, building and manifesting human life in facing competition in a wide area namely international competition (Shah, 2006). To face the competition in the globalization era, it is necessary to improve the quality of human resources. Such improvements can be pursued through education including improving the quality of national education and in especially the improvement of student learning outcomes.

Bloom states that the success of students in learning, one of them is seen from academic achievement. According to Azwar (2004), in general there are two factors that affect student academic achievement. These factors are internal and external factors. Internal factors are physical factors and psychological factors associated with general physical conditions such as sight and hearing, and others. Psychological factors associated with all aspects of non-physical factors, such as interest, motivation, talent, intelligence, attitude and mental health. Meanwhile external factors are factors outside the body of the actors, namely social environmental factors. These factors include learning conditions, learning tools and equipment, learning materials and conditions of the learning environment as

well as the whole factors that involve social support and cultural influences.

Student learning outcomes in the learning process should be measured by various methods, in the hope that the obtained results will inform the actual state in the field and will eventually be able to perform relevant action. Educational objectives that has been formulated will be achieved if through various efforts, so the measurement of learning outcomes is evaluative step in a planned way to see evidence of improvement or achievement. However, students' learning outcomes are not solely an independent thing and there is no connection with other factors. Learning outcomes are the result of a complex process that has been traversed with a relatively long time and affect each other.

One of factors supporting the learning outcome is emotional intelligence that includes fortitude, sociability, empathy, patience, sincerity, tenacity, toughness, etc.. Emotional intelligence relies on the relationship between feelings, temperaments and moral instincts that include self-control, enthusiasm and perseverance, adaptability, personal problem-solving skills, anger control, and the ability to self-motivate. What occurs in the process of emotional learning is a change in the ability possessed by students in various fields, and the ability is obtained because of the effort to learn. Students who master their emotions will be more confident, optimistic, have the spirit and aspirations, and have the ability to adapt in the existing problems.

Motivation also affects student achievement. The change of energy in a one's personal is characterized by the growth of affective (feelings) and reactions to achieve the

goal, in other words students who have motivation are students who have certain purpose of all activities. Slameto (1995) states that many students who are classified as intelligent do not show their intelligence in the learning process. This happens because they have low motivation or even no motivation to achieve learning outcomes well. This shows that students who are smart with low learning motivation will not achieve good learning outcomes. Conversely, students with average intelligence but has high motivation to learn, will achieve good academic achievement.

Based on the above description, then the problem to be studied in this research is to determine the effect of emotional intelligence and motivation to learning outcomes of Natural Sciences subject in the students of State Junior High School of 8<sup>th</sup> graders in Kendal Municipality Lesson Year 2016/2017.

## **LITERATUR REVIEW**

### **1. Emotional Intelligence**

Emotional intelligence is the ability to sense, understand, and effectively apply the power and emotional sensitivity as a source of energy, information, connections and humane influence. According to Goleman (2001) emotional intelligence is the ability to recognize our own feelings and feelings of others, the ability to self-motivate, and the ability to manage emotions well in one-self in relation to others, such as self-awareness, self-regulation, motivation, empathy, social skills. Self-awareness consists of: awareness of self-emotion, personal judgment, and self-confidence. Self-regulation consists of: self-control, trustworthiness,

alertness, and innovative. Motivation consists of: encouragement of achievement, commitment, initiative, and optimism. Empathy consists of: understanding others, ministering, developing others, and overcoming diversity. Social skills consist of: influence, communication, leadership, catalyst change, conflict management, network binders, and teamwork.

## **2. Motivation**

Sardiman (2004), states that learning motivation is the overall driving force within students that causes, ensures continuity and gives direction of learning activities so that the expected goal can be achieved. The definition of learning motivation according to Uno (2007) is an internal and external impulse of students who are learning to make behavioral changes, in general with some supporting indicators or elements. Based on the description of some opinions above, it can be concluded that learning motivation is the overall driving force that becomes the power in individuals who are learning to make changes off all behavior so that it is expected that learning objectives can be achieved.

There are two kinds of motivation according to Djamarah (2002), namely: a. Intrinsic Motivation, motives that become active or its functioning does not need to be stimulated from the outside, because there is an urge to do something in every individual. b. Extrinsic Motivation, active motives and functioning due to external stimulation. Learning motivation is said to be extrinsic when students put their learning objectives outside the learning situation factors. Students learn because they want to achieve goals

that lie beyond the things they studied. For example, to achieve high scores, diplomas, degrees, honors and so on.

Aspects of Learning Motivation according to Frandsenis: there are some aspects that motivate one's learning, namely: curiosity characteristics and want to investigate the wider world, creative nature that exist in humans and the desire to always advance, the desire to get sympathy from parents, teachers and friends, the desire to correct past failures with new efforts, both with co-operation and competition, the desire to gain security when mastering the lessons, and the rewards or punishments as the end of learning.

## **RESEARCH METHOD**

### **Research Design**

The research conducted to determine the effect of emotional intelligence and motivation on the learning outcomes of natural sciences of Junior High School students of 8<sup>th</sup> graders is included survey research. This research aimed to determine the effect of emotional intelligence and learning motivation on Natural Science learning outcomes in students of State Junior High School of 8<sup>th</sup> graders in Kendal Municipality, Lesson Year 2016/2017. Therefore, the research hypotheses that can be formulated are:

1. Learning motivation positively affect the learning outcomes of Natural Science subjects of SMP students in Kendal Municipality
2. Emotional intelligence positively affect the learning outcomes of Natural Science learning in SMP students of Kendal Municipality
3. Emotional intelligence and learning motivation affect the learning outcomes of Natural

### Research Settings

The research was conducted at State Junior High School of 8<sup>th</sup> graders in Kendal Municipality, Central Java in even semester of Lesson Year 2016/2017.

### Research Subject

Subjects of this research were all public school students located in Kendal Municipality. The sampling technique was conducted by cluster random sampling technique. All State Junior High Schools located in Kendal Municipality have the same opportunity to be chosen. Then it was randomized to map in the scale of districts, which Kendal Municipality consist of 20 districts. After districts were chosen with random technique, then one Junior High School located in the District was chosen. Then determine the 8<sup>th</sup> grade randomly in State Junior High School to obtain data.

### Data, Instrument, and Data Collecting

The data collecting process was conducted by documenting the value of the Final Semester Examination of Natural Science subject of Junior High School of 8<sup>th</sup> grader students. The Natural Science scores were obtained based on the test instrument that had been made and tested by the Education Office of Kendal Municipality through the Natural Science MGMP teacher. Meanwhile, to determine Natural Science learning motivation and students' emotional

intelligence in Natural Science learning was using questionnaire instruments with Likert scale (1-5)

Data collection of questionnaires of learning motivation and emotional intelligence of science subjects in Junior High School of 8<sup>th</sup> graders students were conducted when approaching the final semester examination of Semester. This will be the priority because the motivation and emotional intelligence that are declared as fluctuate and changing at times does not have a long period of time for the implementation of the semester exam. Therefore during this approaching exam, learning motivation and emotional intelligence will be obtained to the results of learning achievement of natural science subjects in Junior High School Students of 8<sup>th</sup> grader.

### Technique of Data Analysis

Data were analyzed using SPSS v.17 with multiple regression technique at 0.05 significance level. The test was intended to determine the effect of both independent variables (emotional intelligence and motivation) on learning outcomes.

## FINDING AND DISCUSSION

Table 1 : Multiple Regression Test Results

Model	R	R Square
1	.883 <sup>a</sup>	.779

a. Predictors: (Constant), X1, X2

Model		Sum of Squares	Mean Square	F	Sig.
1	Regression	693.905	346.952	38.877	.000 <sup>a</sup>
	Residual	196.335	8.924		

Total	890.240			
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a. Predictors: (Constant), X1, X2  
 b. Dependent Variable: Y

Model		Unstandardized Coefficients	t	Sig.
		B		
1	(Constant)	10.120	1.376	.183
	X2	.468	3.676	.001
	X1	.396	2.683	.014

a. Dependent Variable: Y

Table 2 : Partial Regression Test Results

A. Motivation

Model	R	R Square
1	.802 <sup>a</sup>	.644

a. Predictors: (Constant), Motivasi

Model		Sum of Squares	Mean Square	F	Sig.
1	Regression	573.287	573.287	41.601	.000 <sup>a</sup>
	Residual	316.953	13.781		
	Total	890.240			

a. Predictors: (Constant), Motivasi  
 b. Dependent Variable: Nilai

B. Emotional

Model	R	R Square
1	.841 <sup>a</sup>	.707

a. Predictors: (Constant), Emosional

Model		Sum of Squares	Mean Square	F	Sig.
1	Regression	629.684	629.684	55.584	.000 <sup>a</sup>
	Residual	260.556	11.329		

Total	890.240			
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a. Predictors: (Constant), Emosional  
 b. Dependent Variable: Nilai

Based on the test results above (Table 1), it can be understood that:

1. The Contribution of Independent Variable (X<sub>1</sub> and X<sub>2</sub>) to Dependent Variable (Y) can be determined through the analysis result in the category of Model Summary, namely on R Square of 77.9 %.
2. On the analysis results, it is obtained a significance level of 0.000 which means smaller than the testing significance level of 0.05. At the hypothesis testing (H<sub>0</sub>) is stated as *rejected if sig < α*.
3. When H<sub>0</sub> is rejected, it can be concluded that there is a linear relationship between X1 and X2 variablesto Y variable.
4. Regression equations that can be written based on the results of the analysis is:

$$\hat{Y} = 10.120 + 0.396 X1 + 0.468 X2$$

which means that 1 time of X1 and X2 increase on Yvariable is 10,984.

Based on the test results above (Table 2), it can be understood that:

1. The Contribution of Independent Variable (Motivation) to Dependent Variable (Nilai) can be determined through the analysis result in the category of Model Summary, namely on R Square of64,4 %.
2. On the analysis results, it is obtained a significance level of 0.000 which means smaller than the testing significance level of

0.05. At the hypothesis testing ( $H_0$ ) is stated as *rejected if sig <  $\alpha$* .

Based on the test results above (Table 3), it can be understood that:

1. The Contribution of Independent Variable (Motivation) to Dependent Variable (Nilai) can be determined through the analysis result in the category of Model Summary, namely on R Square of 70,7 %.
2. On the analysis results, it is obtained a significance level of 0.000 which means smaller than the testing significance level of 0.05. At the hypothesis testing ( $H_0$ ) is stated as *rejected if sig <  $\alpha$* .

## CONCLUSION AND SUGGESTION

### Conclusion

Based on the testing conducted,  $H_0$  is rejected so that it can be concluded that:

- a. Learning motivation has a positive effect on Natural Science learning outcomes of Junior High School student in Kendal Municipality
- b. Emotional intelligence positively affects the Natural Science learning outcomes of Junior High School students in Kendal District
- c. There is influence of Emotional Intelligence and learning motivation to Natural Science learning outcomes of Junior High School student in Kendal Municipality.

### Suggestion

Learning achievement is directly proportional to emotional intelligence and motivation in natural science learning, so the role of teachers in the learning process should pay

attention to motivation or emotional skills of students, at least students feel happy and interested in following the learning process. Similarly, students must realize that learning achievement will be better when these factors have big role to them.

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