



THE RELATION OF STUDENTS EMOTIONAL INTELLIGENCE (EQ) TO STUDENTS ACHIEVEMENT IN
PHYSICS CLASS XII MAN I MEDAN ACADEMIC YEAR 2014/2015

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ABSTRACT

This study aims to determine how the relationship between students emotional intelligence to students achievement in physics class XII Science at MAN 1 Medan Academic Year 2014-2015. Sample in this study was class XII Science 5th at MAN 1 Medan was 40 respondents. The magnitude of emotional intelligence of students was measured using a questionnaire adapted from the questionnaire EQ Map™ made by Cooper, K and Sawaf and distributed directly to students obtained an average value for the emotional intelligence of students is 106 (good category). While the students learning outcomes in physics assessment tests obtained from physics problem obtained the average score was 69.13 (enough). Based on data analysis, the correlation coefficient between emotional intelligence of students to physics learning outcomes of students in class XII Science at MAN 1 Medan obtained r count was 0.76 and the coefficient of determination r^2 was 57.76%. It was meant that there was a positive correlation between students emotional intelligence to students learning outcomes in physics, where students emotional intelligence factor accounted for 57.76% of the increase in physics student learning outcomes. The hypothesis H_0 was rejected at once receive H_a . There was a relationship between students emotional intelligence to students learning outcomes.

Keyword: Emotional Intelligence, Learning Outcomes

INTRODUCTION

Various types of theory and models of learning have been offered by education experts with the aim of solving all the problems in the learning process. However, the fact is still a lot of learning problems that are found in the fields of education, start from student interest to the learning outcomes. This shows that the theories and models of learning is not quite able to overcome the problems in studying thoroughly.

Many factors influence the achievement or student's learning outcomes both coming from students (internal factors) as well as factors that come from outside the student (external factors). According Slameto (2010) that included

an internal factor is the physical factors such as health and disability factors and psychological factors such as intelligence, attention, interests, talents, motives, maturity and fatigue. External factors are factors family, school and community environments. Like many cases that could be seen and heard in the audio-visual, many brawl among students due to lack of self-control students and unfavorable environmental factors, or the presence of problems in the family that brought students to the school environment, so that reduced the spirit of learning that can cause maximum learning outcomes.

During this time many people were found to achieve high academic achievement required

intellectual intelligence (IQ) high. However, according to the latest research results in the field of psychology prove that IQ is not the only factor in influencing learning achievement. But there are many other factors that influence, one of which is emotional intelligence. Emotional intelligence is the ability to recognize emotions, manage emotions, motivating one self, recognizing emotions in others (empathy) and the ability to build relationships (cooperation) with other people. While learning achievement is the result of learning from a learning activity that is carried out based on the measurement and assessment of the results of learning activities in the academic field that is realized in the form of figures in their report card. Powered opinions expressed by Cooper (2002) that emotional intelligence allows individuals to be able to feel and understand correctly, then able to use the power and sensitivity of emotions as energy information and human influence.

The idea of emotional intelligence (EQ) is derived from the idea that intelligence (IQ) which used to be considered as an indicator of success in life, now no longer seen as the sole determinant of success. People who have a high IQ and low EQ does not guarantee a successful life. If someone has a high IQ However the low level of emotional intelligence that will likely be seen as a hard-nosed, hard to get along, easily frustrated, not easy to believe in others, not sensitive to environmental conditions and tends to despair when experiencing stress. The opposite condition, experienced by people who have an average IQ level but has a high emotional intelligence. (Patton, 1997)

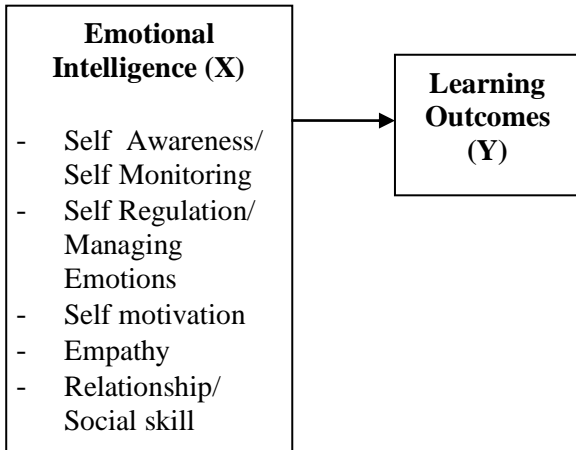
In fact, in the process of teaching and learning in schools or educational institutions often find students who cannot equal learning achievement with intelligence capabilities. There are students who have a high intelligence capability but to obtain a relatively low learning achievement, however there are students that despite relatively low intelligence capabilities can achieve relatively high academic achievement. According to Goleman (1995), intelligence (IQ) accounted for only 20% of success, while 80% is the contribution of the other power factors, including emotional

intelligence (EQ), which is the ability to motivate your self, overcome frustration, impulse control, set the mood (mood), empathy and the ability to work.

Research has been conducted by Wahyuningsih (2004) on the relationship between emotional intelligence and academic achievement there was a correlation of 0.248. Furthermore, Gusmayanti (2009) found results emotional intelligence relationship with student achievement was obtained by using product moment correlation of $r = 0.398$. Taringan (2012) was the title of a similar study found a correlation of $r = 0.5$ with determination index $I = 31.4\%$. Meanwhile Daud (2012) in his research are the determination coefficient value 0.474 which means that 47.4%. The research objectives are to know the students emotional intelligence and learning outcomes in physics class XII Science MAN 1 Medan and then to analyze the relationship between emotional intelligence in terms of recognizing the emotional aspect of self, managing emotions, motivating oneself, recognizing emotions, relationships to learning outcomes in physics class XII Science at MAN 1 Medan

METHOD

The type of research used in this research was descriptive research, the research was used to describe the symptoms in the community. This research was conducted at MAN 1 Medan Class XII Second Semester in Academic Year 2014/2015. The population in this research were all students in class XII Science at MAN 1 Medan. The number of students are 222 people from five classes. The samples defined by cluster random sampling and conducted in class XII Science 5th with number are 40 people. The independent variable in this research was student's emotional intelligence and the dependent variable was students learning outcomes in physics class XII Science 5th. The design was designed as follows:



Measuring the students emotional intelligence using the Questionnaire that was adopted from the questionnaire **EQ Map™** made by Cooper, K and Sawaf who have tested raw and statistically reliable to facilitate the exploration of emotional intelligence, the questionnaire consists of 35 questions and each question consists off our answer choices. Measuring students learning oucomes in physics using the Multiple Choice Tests that was taken randomly from the problems UN SMA/MA program of study Physics 2008-2012 consist 20 question.

Techniques of Analysis Data are Determining the relationship between variables X (emotional intelligence of students) and Y (student’s learning outcomes), then use the product moment correlation formula, Calculating the amount of the carrying capacity between emotional intelligence of students(X) with learning outcomes physics students (Y) used the coefficient of determination (r^2), and Test the hypothesis between emotional intelligence of students with learning outcomes of students using t statistic test which basically indicates whether all the independent variables or free inclusion in the model have jointly influence on the dependent variable or bound.

RESULT AND DISCUSSION

Research Result

From the result of research, the average scores of students emotional intelligence in class XII Science 5th MAN 1 Medan was 106 classified categories as “Good”, and the average score of

students learning outcomes in physics class XII Science 5th at MAN 1 Medan was 69.13 or classified “enough”.

To calculate the size of the relationship between variables X (emotional intelligence) with a variable Y (physics learning outcomes) used the formula Product Moment correlation. From the calculation results obtained r_{count} Was 0.76. As for the number of respondents 40 students ($N = 40$) and a significant level of 5% or $\alpha = 0.05$ then obtained r_{table} e was 0.312. By comparing the value r_{count} with r_{table} the obtained $r_{count} > r_{count}$ ($0.76 > 0.312$) so it can be concluded that there was a relationship between emotional intelligence of students with students learning outcomes in physics class XII Science 5th.

Based on the analysis results of the calculations in the research relationship of emotional intelligence of students (X) with a physics student learning outcomes(Y) class XII Science in MAN 1 Medan then found the coefficient of determination r^2 was 0.57, or in percent was 57%. This means that the variance that occurs in the variable Y (students learning outcomes in physics) were 57% can be explained through variance that occurs in X variables (emotional intelligence of students), or physics student learning outcomes (Y) 57% determined by the magnitude of the emotional intelligence of students (X), and 43% of students learning outcomes in physicsis determined by other factors.

Testing criteria H_a accepted if $t_{count} > t_{table}$ to the significant level $\alpha=0.05$ $df=n-2$ and in other respects H_o was rejected. From the calculation results obtained $t_{count}=7.2$. Then from the t distribution list for $\alpha= 0.05$ and $df=40-2=38$ was not in the list, then the calculation searched using the interpolation and $df=40$ and $df =30$ obtained $t_{table}=2.0042$. By comparing these two values, the obtained $t_{count} > t_{table}$ ($7.2 > 2.0042$), then H_o which reads students emotional intelligence and students learning outcomes in physics class XII Science 5th in MAN I Medan ”was rejected, while H_a which reads" There was a relationship between students emotional intelligence and students learning outcomes in

physics class XII Science 5th in MAN I Medan accepted”.

Discussion

Students who have high emotional intelligence was able to address the self-awareness, self-regulation, self-motivation, empathy (feeling felt others) and social skills, students who have emotional intelligence are as less capable in dealing with self-awareness, self-regulation, self-motivation, empathy and social skills are influenced by environmental factors, school, family, and peers. Students who have the same score in emotional intelligence does not always get the same result of learning physics. It can be seen that, that affect learning outcomes physics not only emotional intelligence factor, but there are other factors not examined in this opportunity.

The relation of Emotional intelligence to physics student learning outcomes showed a positive turns in the high emotional intelligence of students also affects the outcome of learning physics. Same with the proposed Patton (1997), if someone coined a good emotional intelligence, it can form the intellectual become more effective. Emotional intelligence consist some aspect such as self-monitoring / self awareness, self-regulation / managing emotion, self motivation, empathy and relationships / social skills very influential and closely related to the results of the students' cognitive, emotional intelligence is also not opposed to the intelligence of intelligence or cognitive skills but both interact dynamically, either at the level of conceptual and real world. In other words, high emotional intelligence will provide space flexibility for cognitive intelligence (IQ) to develop optimally.

Since 1990, when for the first time emotional intelligence was introduced, it has become a buzzword in psychology and has been used in so many fields including education, management studies, and artificial intelligence. Daniel Goleman (1995), the prominent spokesperson for emotional intelligence, held that roughly 80 percent of the variance among people in various forms of success that is unaccounted for by IQ tests and similar tests can be explained by other characteristics that

constitute emotional intelligence. He has defined emotional intelligence as including “abilities such as being able to motivate oneself and persist in the face of frustration, to control impulses and delay gratification; to regulate one’s moods and keep distress from swamping the ability to think; to emphasize and to hope”. Much research findings suggest that emotional intelligence is important for work settings (Carmeli, 2003), and classrooms (Petrides, Frederickson, & Furnham, 2004), and enhances performance in interviewing (Fox & Spector, 2000), cognitive tasks (Shutte, Schuetz, & Malouff, 2001), and contextual performance (Carmeli, 2003).

From the calculation of emotional intelligence relationship with student learning outcomes physics class XII Science 5th in MAN 1 Medan obtained a correlation coefficient of $r = 0.76$ which states that the relationship between the two, including a strong or high based assessment standards according Sugiyono (2011). With the determination coefficient of 57%. This means physics student learning outcomes (Y) 57% determined by the magnitude of the emotional intelligence of students (X), and 43% of students learning outcomes in physics was determined by other factors such as intelligence, learning models, learning resources, learning, studying environmental factors and so on. From this we can see again that emotional intelligence actually contributed to or having an effect with cognitive learning outcomes of students. Accordance with the opinion Goleman (1995) says that IQ only accounts for 20% of success, while 80% is the contribution of other factors, including the factor of emotional intelligence. In this study emotional intelligence accounted for 57% in the successful outcomes of learning physics class XII Science in MAN 1 Medan.

Meanwhile, to prove the alternative hypothesis (H_a) can be done by comparing t_{count} with t_{table} where H_a will be accepted if $t_{count} > t_{table}$. In the data analysis results, the value of $t_{count} = 7.2$. Then from the list of t distribution with $N = 40$ for $\alpha = 0.05$ and $df = 40 - 2 = 38$ did not find in the list, then the calculation searched using the interpolation and $df = 40$ and $df = 30$ obtained $t_{table} = 2.0042$. By comparing

these two values, the obtained $t_{count} > t_{table}$ (7.2 > 2.004). So, H_0 which reads "There is no relationship between emotional intelligence and learning outcomes physics class XII Science 5th in MAN I Medan" was rejected, while H_a which reads "There was a relationship between emotional intelligence and learning outcomes physics class XII Science 5th in MAN I Medan accepted".

CONCLUSION & SUGGESTION

Conclusion

Based on the analysis of data and test results can be concluded that: (1) The average value of emotional intelligence of students of class XII Science 5th in MAN 1 Medan was 106 with a weight 3.03 and the highest value obtained for the emotional intelligence of students of class XII Science 5th in MAN 1 Medan was 122 (Maximum ideal Score was 140), meanwhile the lowest value was 85 (Minimum ideal Score was 35). As for the category of emotional intelligence, scores of students emotional intelligence in class XII Science 5th MAN 1 Medan with average score was 106 classified categories as "Good". (2) Student's learning outcomes in physics especially terms of cognitive in class XII 5th in MAN 1, the average score was 69.13 (score range 0-100) classified "enough" with highest value was 85 and the lowest value was 20. (3) The results of the analysis of product moment correlation coefficient r_{count} was 0.76 with $N = 40$. This price was much greater than the r_{table} was 0.312 with a significant level of 5% ($\alpha = 0.05$). In this connection levels included into a strong relationship. The results indicate the magnitude of the coefficient of determination (r^2) emotional intelligence relationship with physics student learning outcomes at 57.76%, meaning that mean physics student learning outcomes (Y) 57.76% determined by the student's emotional intelligence (X), and 43% of students studying physics was determined by factors other. Based on testing the t test, the hypothesis can be accepted if where $t_{count} > t_{table}$ was that 7.2 > 2.0042. It was concluded that there was a relationship of emotional intelligence of

students with physics learning outcomes of students of class XII Science 5th in MAN 1 Medan

Suggestion

Based on the research results and conclusions, then as a follow-up of this research the researcher suggested some suggestions that were for further research for more attention to the respondent at the time of answering the test questions of physics to prevent cheating each other and at the time of filling the questionnaire to answer the questions honestly and confidently, for further research in order to establish a questionnaire used to measure emotional intelligence, both in terms of the number of the questions or of the quality of the questions in the questionnaire and for a physics teacher to better in still the importance of emotional intelligence, at last for all school parties in order to create a more harmonious atmosphere, comfortable, courtesy and respect so as to foster and help develop the emotional intelligence of every student and teacher

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