



ANALYSIS OF EMOTIONAL INTELLIGENCE ON SCIENCE LEARNING ACHIEVEMENT

Nada¹, Hisbullah Mustapa^{2,*}, Nur Kholijja Harahap³, Sri Wina Oktavia³

¹ Junior High School 16 Kota Jambi, Jambi, Indonesia

² Master of Education in Physics, Sultan Idri Educations University, Perak, Malaysia

³ Faculty of Teaching and Education, Universitas Jambi, Jambi, Indonesia

Corresponding author email: hisbulloham@gmail.com

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Abstract :

This research is one of the first studies to explore the level of emotional intelligence and learning achievement of class VIII students on style material in Indonesia. The research method used is quantitative research. The population in this study consisted of all students in class VIII of Junior high school 16 Jambi City and Junior high school Izzuddin Shah. The sampling technique used was random sampling. The research instrument used was a statement questionnaire given to students. The data analysis used was descriptive statistics. The research results on students' emotional intelligence showed that they were in the good category with a percentage of 42% at Junior high school 16 Jambi City and in the good category with a percentage of 52% at Junior high school Izzuddin Shah. The findings provide new insights and implications for enhancing students' emotional intelligence and learning achievement, especially on style material, in the Indonesian context.

Keywords: Emotional Intelligence, Learning Achievement, Style Material

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INTRODUCTION

Education has a significant role in a nation's development and prosperity. Education is one of the basic needs for every individual because it is related to the life of a country. Without education, it is difficult for individuals to participate actively in globalization and obtain opportunities. Education moves annually from one stage of development to the next, with different educational characteristics and challenges (Setiadi, 2016; Asmamaw, & Semela, 2023; Octavia et al., 2023). Education is a process of acquiring and instilling skills performed by learners. To develop the potential contained in each student (Barnas & Ridwan, 2019; Wickman, Prain, & Tytler, 2022; Aldila et al., 2023).

Education is a familiar word to talk about. Education has an essential role in the development and progress of a country (Oktavia et al., 2023; Nwune, Oguezue & Odum, 2023). The better the education system in a nation, the more developed and developed the government will be. According to the National Education System Law No.20 of 2003, article 1, education is a planned, conscious effort to create a learning atmosphere and learning process so that students actively develop their potential to have religious, spiritual power, self-control, personality, intelligence, noble character, as well as the

skills needed for themselves, society, nation and state (Lestari, 2018; Humaeroh & Dewi, 2021; Castro, 2023).

Natural science is related to how to find out about nature systematically, which is known to be closer to learning science and thinking scientists towards science subjects. Science subjects are learning whose scope is more about the surrounding nature and the environment. Natural science is not only about mastering a collection of knowledge in the form of facts, concepts, or principles but also a process of discovery. In science learning, students must recognize self-emotions and motivate themselves (Hostyn & Maes, 2009; Astalini et al., 2023; Ernawati et al., 2023). An interaction that, when working alone, will cause a change in the state of motion of an object is called a force. Force can affect changes in objects' motion, position, or shape. Which style cannot be separated from everyday human life. In studying this style of material, students are expected to be able to explore their potential and increase their emotional intelligence in themselves.

Emotional intelligence is a form or ability that a person has to handle and overcome the emotions of himself or others (Zarifsanaiey et al., 2022; Ha, 2023; Ojala, 2023). In emotional intelligence in students, several aspects are essential, namely recognizing self-emotions, managing emotions, knowing other people's feelings, and fostering good relationships with others. Each individual has possessed emotional intelligence since birth, but the level of each individual is different. Therefore, each student has a foreign emotional intelligence. Some stand out, and some have low levels of emotional intelligence (Rahmawati, 2018; Gómez-Leal et al., 2022; Doblón, 2023).

The term emotional intelligence first originated from the concept of social intelligence proposed by Thorndike (1920) by dividing three areas of intelligence, namely abstract intelligence (the ability to understand and manipulate verbal and mathematical symbols), concrete intelligence (intelligence to understand and use objects) and social intelligence (the ability to relate to others). A person with high emotional intelligence will be able to understand himself and the emotions of others. People can take advantage of this understanding to improve their behavior and attitude in a positive direction to be able to control emotions, be more motivated, feel satisfied, and be able to overcome the problems they experience (Malina et al., 2021; Astalini et al., 2023; Thomas, Sung, & Bretl, 2023).

Emotions need to be trained by increasing understanding related to the impact of negative and positive emotions. The consequences caused a both negative and positive need to be prepared, which helps raise awareness about the effect of one's feelings (Pienimaa, Talman, & Haavisto, 2021; García-Martínez et al., 2023; Kotaman, 2023). If a person can manage his emotional intelligence well, it will encourage him to become a force and act that will later be able to determine a person's success. The purpose of education in Indonesia must be based on emotional intelligence. In a good learning process, the interaction between students and teachers must have similarities so that the goals of the education process can be realized together. It should be understood how important good emotional intelligence is to students (Husain et al., 2022; Acheampong et al., 2023; Irmayanti, Rusdi & Yusnaidar, 2023).

In the learning process at school, many people argue that someone with an Intelligence Quotient (IQ) can achieve high achievements in learning. Because intelligence is a potential provision that will facilitate learning to produce optimal learning achievement, Intelligence emotion cannot function properly without the participation of emotional intelligence. The balance of emotional intelligence and intelligence can affect human resources and the mindset of society, especially educators (Rahmawati, 2018; Li, Wang, & Li, 2022; Maria et al., 2023). The essence of intelligence is the ability to set and maintain a goal, to make adjustments to achieve that goal, and to assess the state of the self critically and objectively (Sulistiyono, 2020; Evans, & Achiam, 2021; Mérida-López, & Extremera, 2022).

Learning is a process of effort made by a person to obtain a new change in behavior due to his experience in his interaction with the environment. A person has learned if his behavior has changed due to his knowledge. Such shifts in behavior are relatively fixed and not by chance or temporary circumstances. Learning is also defined as acquiring various skills and attitudes (Jannah & Fahlevi, 2018; Ikhwan et al., 2020; Suleyeva, Tovma, & Zakirova, 2022).

Learning achievement is an ability students obtain when they finish the learning process. Several factors that can influence the learning achievement of students in general can be divided into two, namely internal factors and external factors (Fang et al., 2022; Zhu, 2022; Agudo, 2023). One of the external factors is the educational environment where the academic environment is divided into

three, namely the family environment, the school environment, and the community environment (Ziaulhaq & Idris, 2020; Humaeroh & Dewi, 2021; Suryonegoro & Hidayah, 2023). Learning achievement is evidence of success achieved by a person, whether in the form of knowledge or proficiency, after conducting the specified learning through assessment in the form of scores or numbers (Chinn & McCarthy, 2013; Herlo, Ambrosio, & Galcheva, 2023; Sari, Asyhar & Purwaningsih, 2023).

Research conducted at State 16 Jambi City Junior High School and Izzuddin Shah Junior High School still found many problems related to students' emotional intelligence. While learning is taking place, there are still some students who are not serious about following the learning process. For example, when the teacher explains that some students talk to their friends, some fight, sleep, etc. When teachers give assignments, many students still answer questions carelessly. Even when group study is held, some still do not actively participate in the group. So this makes the learning process not conducive. This means that students still do not understand the importance of learning for themselves.

Students whose emotions are still unstable will significantly affect their attitude, behavior, and learning achievements, which is the attitude and behavior of the student who is more apathetic and less concerned about what is happening in the surrounding environment. Because of the lack of care, these students do not listen to what the teacher conveys when learning takes place. When the teacher gives a question or quiz, the students often answer the origin. So, this harms his learning achievements.

From the description above, emotional intelligence greatly influences student learning achievement. Therefore, researchers need to study this problem further. Thus, it is hoped that this research can be used as a consideration for teachers to take the following steps to improve the future learning process.

RESEARCH METHOD

This type of research uses quantitative research methods. Quantitative research is a type of research that collects numerical data or data that can be measured with numbers to test hypotheses, answer research questions, or identify patterns and relationships in a phenomenon. Quantitative research has the advantage of producing data that can be measured objectively, allowing for careful statistical analysis, and identifying cause-and-effect relationships (Asrial et al., 2021). However, this research also has limitations, such as difficulties in understanding the deeper context, and may not be able to explain the phenomenon comprehensively (Sholikhah, 2016). Therefore, quantitative research is often combined with qualitative research to provide a more complete understanding of a problem or phenomenon.

The research population was all class VIII students at 16 junior high schools in Jambi City and class VIII students at Izzuddin Shah Junior High School. The technique used to determine the sample is simple random sampling. This simple random sampling technique is taking a sample of members using a simple random method. So, the research sample can be seen in the table 1.

Table 1. Research Sample

School	Students
16 Junior high schools in Jambi City	50 students
Izzuddin Shah junior high school	50 students

Data collection instruments and techniques. This researcher's quantitative data collection instrument used a questionnaire sheet for the emotional intelligence variable on science learning achievement. This instrument uses a Likert scale, namely a scale consisting of 5 points with a score range of 5 very good, 4 good, 3 quite good, 2 not so good, and 1 very bad. each statement represents each indicator, the emotional intelligence questionnaire sheet instrument grid used in this research can be seen in Table 2.

Table 2. Grid of emotional intelligence indicators

Indicator	No. Statement
Be aware of positive and negative emotions	
Feeling the strength and weakness of the influence of feelings on actions	
Express emotions appropriately. Reduce emotions well	1-15
Demonstrate a confident attitude in learning	
Demonstrate a high-effort attitude. Be responsible for yourself to achieve the desired results	

After students fill in all the statements on the emotional intelligence questionnaire, the data will then be arranged in category form. The emotional intelligence categories can be seen in Table 3.

Table 3. Categories of emotional intelligence

Intervals	Category
15 – 27	Not Very Good
28 – 40	Not Good
41 – 53	Enough
54 – 65	Good
66 – 77	Very Good

In this study, quantitative data were obtained from student questionnaires and multiple-choice questionnaires, then qualitative data were obtained from student interviews. Then for quantitative data analysis using descriptive statistics (Astalini et al., 2022; Nasution, 2017). Descriptive statistics are statistics that have the task of organizing and analyzing data, and numbers, in order to provide an orderly, concise, and clear description of a phenomenon, event, or situation so that certain meanings or meanings can be drawn. (Sholikhah, 2016).

RESULTS AND DISCUSSION

The research results have been obtained and analyzed using statistics. Data analysis uses descriptive statistics. The descriptive statistical results of emotional intelligence in 16 junior high schools in Jambi City and Izzuddin Shah Junior High School can be seen in Table 4.

Table 4. Descriptive statistical results of emotional intelligence in 16 junior high schools in Jambi City and Izzuddin Shah Junior High School

School	Characteristics of Intervals	Category	F	mean	median	min	maks	%
16 Junior High Schools in Jambi City	15 – 27	Not Very Good	0					0%
	28 – 40	Not Good	3					6%
	41 – 53	Enough	12	61.61	60.0	41.0	75.0	24%
	54 – 65	Good	21					42%
	66 – 77	Very Good	14					28%
Izzuddin Shah Junior High School	15 – 27	Not Very Good	0					0%
	28 – 40	Not Good	0					0%
	41 – 53	Enough	13	63.33	62.0	30.0	75.0	26%
	54 – 65	Good	26					52%
	66 – 77	Very Good	11					22%

Table 4 shows that the dominant indicator of emotional intelligence for students is in a good category with a percentage of 42% in 16 junior high schools in the city of Jambi, and is in the good category with a percentage of 52% in Izzuddin Shah junior high school.

Data analysis is an effort to systematically search and organize observation notes, interviews, etc. to increase the researcher's understanding of the cases studied and present them as findings for others. Meanwhile, to increase this understanding, analysis needs to be continued by trying to find meaning. The purpose of data analysis is to explain data so that it is easier to understand, then conclusions can be drawn. Conclusions from data analysis were obtained from the sample (Hayes & Preacher, 2014).

Data was obtained using questionnaires, daily test scores, and photo documentation. Questionnaire distribution was used to obtain data on the emotional intelligence variable. Students' daily test scores are used to obtain data on learning achievement variables (Sholikhah, 2016). The type of instrument used in this research is a questionnaire in the form of a rating scale with a checklist method.

The data the researcher obtained was then analyzed using the IBM SPSS Statistics 25 program to analyze descriptive data. Students with high emotional intelligence will be more skilled in calming down and focusing on understanding the subject matter, have better relationships with others, are more capable of understanding people, have good friendships with others, and have better learning outcomes. Thus, the higher the student's emotional intelligence, the more it will improve his science learning achievement. On the contrary, students who cannot resist control over vigorous onset in the process of learning science will cause students to find it difficult to focus their attention and live the subject matter, reducing their science learning achievement (Forbes, Neumann, & Schiepe-Tiska, 2020; Zhao, Wang, & Liu, 2022; Soleimani et al., 2022; Christodoulakis et al., 2023).

The research has some limitations that need to be addressed in future studies. First, the research only used a statement questionnaire as the instrument to measure the level of emotional intelligence of the students. This may not capture the full range of emotional skills and competencies that the students possess. A more comprehensive emotional intelligence assessment may include behavioral observations, interviews, or performance tasks. Second, the research only focused on the style of the material as the subject of learning achievement. This may not reflect the students' general academic performance across different topics and domains. A more holistic measure of learning achievement may include standardized tests, grades, or portfolios. Third, the research only involved two schools in Jambi City as the sample. This may limit the generalizability of the findings to other schools or regions. A more extensive and diverse sample may increase the external validity and representativeness of the results.

The research contributes to the literature in several ways on the relationship between emotional intelligence and learning achievement. First, the research is one of the first studies to examine the emotional intelligence and learning achievement of class VIII students on style material in Indonesia. This provides a unique context and perspective, as most previous studies have focused on other countries, grade levels, or subjects. Second, the research uses a quantitative approach to measure and analyze the variables of interest. This allows for a more objective and reliable assessment of the constructs and their associations and a comparison between different schools and groups of students. Third, the research provides practical implications and recommendations for teachers, students, and policymakers on how to enhance students' emotional intelligence and learning achievement, especially on style material. This can help improve the quality of education and the outcomes of students in Indonesia.

CONCLUSION

Based on the research conducted, it can be concluded that the dominant indicator of students' emotional intelligence is in the good category with a percentage of 42% at 16 Junior High Schools in Jambi City and in the good category with a percentage of 52% at Izzuddin Shah junior high school. So it can be concluded that Izzuddin Shah junior high school is superior to the 16 junior high schools in Jambi city.

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