IDENTIFICATION OF THE STUDENTS’ ATTITUDE TO PHYSICAL LESSON IN SMAN 8 JAMBI CITY


INTRODUCTION

Education has a crucial role in inculcating good behavior. Education is a process of improving the quality of life and expanding skills and nurturing mothers’ skills. Education is a means to acquire knowledge and skills that are useful in everyday life, which is the role of human society in groups (Halim, 2007). Education is a human right, while humans can see their and recognise the every human being. To ensure that the students have the right attitude towards science subjects, it is necessary to conduct research to find out the students’ attitude towards physical lesson in SMAN 8 Jambi City. This study aims to determine how the students’ attitude of SMAN 8 Jambi City towards Physics subjects. This research used quantitative research with a survey research design. The data collection technique used was a questionnaire with 5 points on the Likert scale. This research involved 174 students of SMAN 8 Kota Jambi. Data analysis in this study used descriptive statistics. The indicator used in this study was the attitude towards investigations in Physics. The analysis results obtained on indicator towards physics investigation was good with 64.4%.

KEYWORDS:
Attitude, Social Implications of Physics, Physics Investigation.

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thing that must be possessed by every human being, which is useful for improving their quality. Law Number 30 of the Year 2003 concerning the national education system, as well as the basic curriculum for elementary school, middle school, and senior high school, places education in the first place. This natural and spiritual curiosity is a human characteristic that cannot be separated from the mechanics or the norms and rules that apply in the world of work. Hence, students must be prepared to join this field. Education is the primary weapon in achieving our country's goal of educating the nation's life. Education functions to form knowledgeable and noble character and skills in the world of work. Besides producing someone who is an expert in a particular field, education also teaches how a person can bring oneself into a social, national, and state environment following the norms and rules that apply in everyday life (Surahman & Mukminan, 2017). However, education has not provided space for students to behave honestly. The learning process teaches good character and moral education to the extent of knowledge written in the text and is less prepared for students to respond and face conflicting lives (Setiawati, 2017).

Physics is considered a problematic field of science and attracts fewer students compared to other subjects. These students assume that physics is a difficult subject during high school and becomes more challenging in college. This is all because in mastering physics, students must also master mathematics well at high school level. Physics is one of the natural science branches that students must also master mathematics well at high school level. Physics is one of the natural science branches that have been admired by students in junior high schools and continued to be admired at senior high school level. This is because the subject is one branch of Natural Science (IPA) that can explain various natural phenomena in daily life. These natural phenomena can be explained through a concept, theory, and physical law so that they can be accepted by the human mind (Kaniawati, 2017). In this case, physics is a branch that explains natural phenomena at school level. This is because the subject is one branch of Natural Science (IPA) that can explain various natural phenomena in daily life. These natural phenomena can be explained through a concept, theory, and physical law so that they can be accepted by the human mind (Kaniawati, 2017). The attitude that occurs during the learning process is very important in directing human behavior (Kaya & Boyuk, 2011). Attitude is a feeling and thoughts that encourage someone to behave when he likes or does not like something (Hardiyanti, Astalini, & Kurniawan, 2018). Attitude is a condition of mental and emotional readiness in taking a particular action when facing a specific condition (Riwahyudin, 2015). It refers to the situation to be ready to do something and is not a real condition. Each individual or someone has different attitudes toward one another. This condition is influenced by several factors that occur in each
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In science education, attitudes towards science are essential factors that influence student achievement and students' alternative conceptions or misconceptions (Kamal & Muideen, 2014). Attitude is a construct of hypotheses that shows the individual likes or dislikes a particular item. Students' attitudes towards science subjects can be measured through various instruments such as the TOSRA (Teacher’s Observation of Students’ Reaction to Attraction) scale. Positive attitudes towards science lessons can influence learning in physics and science (Erdemir, 2009). If students have a negative attitude towards science or physics, they will not like physics or their physics teacher (Guido, 2013). Students' positive or negative attitudes can influence learning in physics and science (Erdemir, 2009). Students' negative attitudes towards certain subjects and physics and science can cause them to experience learning difficulties. Therefore, students must develop a positive attitude towards physics and be considered an essential step in science education.

To assess changes in students' attitudes toward science and physics and issues related to science and physics, can be measured using Fraser (1981) dimension of TOSRA, including attitudes towards inquiry in physics. According to Junaedi, Sunarno, & Cari (2014), inquiry can be said as a method that refers to a way to question, seek knowledge or information, or study a symptom because science is a way of thinking or working which is equivalent to the ability of knowledge. Inquiry learning is one of the constructivist learning models that involve students' activities maximally throughout their ability to search and investigate. It is a model that can be applied to improve student abilities (Suyono, Suparmi, & Sarwanto, 2015).

The research aimed to determine how students' attitudes towards physics, especially the attitude towards physics inquiry. In this study, the question arose: what was students' attitude towards inquiry in physics?

RESEARCH METHOD

This research was a survey research with a quantitative design. The researchers chose several respondents as a sample in the survey research and gave them a standardized questionnaire. In survey research, the researchers explain or record the conditions or attitudes to explain current (Morissan, 2017). At the same time, Muijs (2004) stated that quantitative research explains phenomena by collecting data in the form of numbers processed mathematically (statistically).

This research was conducted at the 8th High School (SMA) Negeri Jambi City. Population in a study means a generalization area consisting of objects/subjects with certain quantities and characteristics determined by researchers to study and draw conclusions (Siyoto & Sodik, M, 2015). This study's population was all the students of
The sample is a small part taken to represent a population. Therefore, the sample is a small part taken to represent a population. The sample was selected by using a random sampling method. The sample used in this research is 174 students. The sample size was determined by using a formula for determining sample size, as shown in the following equation:

\[ n = \frac{Z^2 \cdot p \cdot (1-p)}{e^2} \]

where:
- \( n \) is the required sample size.
- \( Z \) is the standard normal distribution value, which is 1.96 for a 95% confidence level.
- \( p \) is the estimated proportion of the population, which is 0.5.
- \( e \) is the desired margin of error, which is 0.05.

Data collection techniques in this study used a questionnaire. The instrument used to collect data in this study was a questionnaire instrument adopted from Rio Darmawangsa, which had Cronbach Alpha 0.9 with a number of 54 statements (Darmawangsa, 2018). In this study, researchers used two indicators: Social implications of physics and attitudes towards investigations in physics. The questionnaire used in this study was revised and tested on 54 students by calculating the reliability of the instrument, which resulted in a Cronbach Alpha of 0.9. The questionnaire was used on the students of Class X, XI, XII IPA SMAN 8 Jambi City as the questionnaire data collection stage.

RESULTS AND DISCUSSION

Attitude is essential during the learning process. Because if a student has a negative attitude towards physics, that student will also have a negative attitude towards the physics subject teacher. Therefore, a teacher must know how the students' attitudes during the learning process. With the teacher knowing the students' attitudes, the teacher can improve the class's learning design adjusted to students' abilities. Scientific attitude has a high influence on the learning process which involves the attitude of the learners. Students who have a high scientific attitude can help the process of learning physics and science become better. It is because scientific attitudes shape students to be able to think creatively and critically.

The attitude towards inquiry in physics includes how students' attitudes towards experimentation and scientific inquiry solve physical problems. The form of physics investigations carried out by students is by practicing a theory previously known to students, making it easier to understand things more thoroughly and pleasantly. It can also be seen from how students' steps solve a problem, namely, by observing, a problem of...
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In this research, a study of attitudes conducted by Astalini, Kurniawan, Perdana, & Pathoni (2019) entitled Identification of Student Attitudes Towards Physics Subjects at State High School 5, Jambi City. The formulation of the problem in the study was an effort to describe the correct implications of student attitudes in learning physics and determine the response towards problems in learning physics. This research aimed to determine the relationship between student attitudes and student performance in learning physics. Data collection techniques used in this study were questionnaires and interviews. Analysis of the data used was descriptive analysis to describe student attitudes towards physics.

The research subject was the students of SMAN 5 Jambi City, while the object of the research was the students’ attitude towards Physics. This research involved 126 students of SMAN 5 Kota Jambi. Data collection techniques used in this study were questionnaires and interviews. Analysis of the data used is descriptive statistics presented with a percentage.

This research concluded the attitude of students at SMAN 5 Kota Jambi on the indicator of scientific normality, and the attitude towards physics research is quite good. The difference in this study was the indicator used to describe attitudes in SMAN 8 Jambi City. There were three indicators to describe student's attitude in previous studies, namely the Social Implications of Physics, Scientific Normality, and Attitudes in Investigating Physics. Darmawangsa (2018) conducted a study to describe student’s attitude in Physics towards learning physics which used the indicator of scientific normality and scientific prioritisation.

The following are the results of descriptive data analysis using SPSS from questionnaires data for attitude indicators in physics investigation, with the results as in Table 1.

<table>
<thead>
<tr>
<th>Attitude Indicator in Physics Investigation</th>
<th>Frequency</th>
<th>Percentage</th>
<th>Mean</th>
<th>Median</th>
<th>Mode</th>
<th>Std. Deviation</th>
<th>Min.</th>
<th>Max.</th>
<th>Range</th>
</tr>
</thead>
<tbody>
<tr>
<td>Very Good</td>
<td>9</td>
<td>5.2%</td>
<td>3.783</td>
<td>3.610</td>
<td>3.500</td>
<td>3.000</td>
<td>5.00</td>
<td>5.00</td>
<td>0.00</td>
</tr>
<tr>
<td>Good</td>
<td>112</td>
<td>64.4%</td>
<td>2.910</td>
<td>2.900</td>
<td>3.000</td>
<td>2.000</td>
<td>21.00</td>
<td>43.00</td>
<td>22.00</td>
</tr>
<tr>
<td>Enough</td>
<td>6</td>
<td>3.4%</td>
<td>2.100</td>
<td>2.167</td>
<td>2.000</td>
<td>0.800</td>
<td>15.00</td>
<td>21.00</td>
<td>6.00</td>
</tr>
<tr>
<td>Very Not Good</td>
<td>1</td>
<td>0.6%</td>
<td>0.000</td>
<td>0.000</td>
<td>0.000</td>
<td>0.000</td>
<td>0.00</td>
<td>0.00</td>
<td>0.00</td>
</tr>
</tbody>
</table>

Based on Table 2, students at SMAN 8 Kota Jambi predominantly answered good. They agreed to the questionnaire data acquisition of 64.4% (112 of 174) students, with a maximum score of 43 and a minimum score of 21. Students categorized overall good data analysis based on the acquisition of 69.6% (121 of 174) students. It showed that, in general, students had behaved well towards investigations in physics that we...
Students preferred to conduct experiments compared to asking the teacher when they wanted to know a physics material, because physics would be much easier to understand when practiced directly. This finding related to Istiqamah, Dayan, & Taufik (2016) that in inquiry learning, the problem and the solution to the problem are not yet known by the teacher, so students are required to seek their answer to determine answers and can conclude the problem. This has been developed through investigations. The results of this study also found that only 1 student at SMAN 8 Kota Jambi (0.6%) had a weak attitude towards scientific inquiry. According to Astalini, Kurniawan, Perdana, & Pathoni (2019), students' attitudes not having the opportunity to conduct experiments, reluctance, and lack of motivation are problems that must be resolved so that students can understand physics. The results of the data analysis showed that students have a good attitude (64.4%) in SMAN 8 Kota Jambi toward investigations in Physics. The scientific spirit of students in efforts to solve problems and find solutions will develop the scientific attitude. Students with a critical thinking ability have good self-concept so that they can analyze problems and draw conclusions well. According to Suyono, Sunarno, & Aminah (2016), students who have critical thinking ability have good self-concept so that they can analyze problems and draw conclusions well. Experimentation in its implementation requires thinking critically to develop the results of practical and assignments so that students understand scientific thinking and critical thinking.

CONCLUSION
Based on the research discussion, it can be concluded that students' attitudes in Physics are not yet having the opportunity to conduct experiments, reluctance, and lack of motivation. The students' attitude is needed so that students understand physics. The students' attitude is necessary to develop the scientific spirit. The students have good self-concept so that they can analyze problems and draw conclusions well.

REFERENCES
I.DENTIFICATION OF THE STUDENTS’ ATTITUDE TO PHYSICAL LESSON (TANTI, D. & WINDA)


