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Evaluation of Students' Interest, Attitudes, and Science Process Skills in Science Subjects

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ABSTRAK

Masalah utama dalam pembelajaran IPA adalah membentuk minat, sikap, dan keterampilan proses sains siswa. Keterampilan proses sains siswa belum berkembang secara optimal. Penelitian ini bertujuan untuk menganalisis perbandingan dan hubungan minat, sikap, dan keterampilan proses sains dalam pembelajaran sains di dua sekolah. Metode penelitian ini adalah kuantitatif dengan tipe komparatif. Jumlah responden sebagai sampel adalah 140 siswa. Teknik pengumpulan data menggunakan purposive sampling. Hasil penelitian menggunakan uji-t bahwa terdapat perbedaan yang signifikan pada indikator minat, sikap dan keterampilan proses sains siswa. Hasil uji korelasi antara minat, sikap, dan keterampilan proses sains pada siswa menunjukkan bahwa minat, sikap, dan keterampilan proses sains saling berkaitan. Keterbatasan penelitian ini adalah hanya menggunakan dua indikator per variabel. Ada baiknya menggunakan beberapa indikator untuk mengetahui lebih detail pengaruh variabel minat, sikap, dan keterampilan proses sains terhadap siswa. Peneliti merekomendasikan penelitian selanjutnya untuk memvariasikan lebih banyak indikator yang digunakan agar dapat mengetahui lebih detail variabel yang diteliti dan peneliti menyarankan untuk melakukan penelitian pada tingkat SMP.

ABSTRACT

The main problem in learning science is shaping students' interests, attitudes and science process skills. Students' science process skills have not been developed optimally. This study aims to analyze the comparison and relationship of interests, attitudes and science process skills in science learning in two schools. This research method is quantitative with comparative type. The number of respondents as a sample is 140 students. The data collection technique used purposive sampling. The results of the study using the t-test that there are significant differences in the indicators of interest, attitude and science process skills of students. The results of the correlation test between interests, attitudes and science process skills in students showed that interests, attitudes and science process skills were interrelated. The limitation of this study is that it only uses two indicators per variable. It is better to use several indicators to find out in more detail the influence of the variables of interest, attitude, and science process skills on students. The researcher recommends further research to vary more indicators used in order to find out in more detail the variables studied and the researcher recommends conducting research at the junior high school level.

1. INTRODUCTION

Education is a very important thing in today's modern era. This is because humans need education to be useful for society and the nation, thereby producing an intellectual generation to increase knowledge (Pelullo & Di Giuseppe, 2018; Darmaji et al., 2019; Yanti & Yusliani, 2020). National education that functions to develop spiritual, social, knowledge and skills abilities, this development reflects the benefits derived from improving education (Susilowati, 2017; Zaki, 2017; Mason, 2020). Therefore, to improve the quality of education, it is done through a focus on teaching (Kalaw, 2017; Şemin, 2019; Sman & City, 2020). Learning is made based on the competence needs and skills of students. Talking about the needs and skills of students themselves are very different, especially at the junior high school level. These skills cover four aspects of education which include learning to know, learning to do, learning to be and learning to live together (Wegawati et al., 2016; Assoc, 2018; Gürsoy, 2021). Given that learning integration is important, it can offer learning according to the needs of students, therefore students can apply what they learn (Setiawan et al., 2017; Asrizal et al., 2018; Mutakinati et al., 2018). This causes the importance of paying attention to the learning carried out in high school. Learning can be carried out

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effectively by considering teaching literacy enrichment according to the characteristics of students (Rochman et al., 2017; Hartini et al., 2018; Laila, 2019).

There are many lessons learned at the junior high school level, one of which is natural science. Science learning or what is often known as science lessons at the junior high school level is often considered important, where these lessons provide learning related to the natural surroundings with the aim of achieving a scientific process and attitude (Fattah, 2019; Nurdin, 2019; Zulfa & Haryanto, 2021). Science subjects are considered important because they are able to facilitate and motivate students in developing their abilities (Anikarnisia & Wilujeng, 2020; Rochman et al., 2019; Taştan et al., 2018). To develop students' abilities, science literacy is held in science learning, where scientific literacy is considered important to be developed in a lesson because it brings benefits to students (El & Nuangchalerm, 2020; Sulistyono & Dwikurnaningsih, 2020; Syofyan et al., 2019). The benefits obtained from scientific literacy can be used in school life and everyday life.

Interest is a desire, and can be considered as a person's liking for something. Interest is one aspect that affects student achievement, therefore interest needs to be developed (Meganingtyas et al., 2019; Permatasari et al., 2019; Tambunan et al., 2021). Interest can be developed with interesting learning so that students' enthusiasm will arise for the learning process that takes place (Khodijah et al., 2018; Saputri et al., 2018; Wahyuni et al., 2017). The science learning process taken by students will run well and as expected if students have a high interest in learning (Krismayoni & Suarni, 2020; Mashuri et al., 2019; Nesi & Akobiarek, 2018). Interest in student learning, of course, apart from arising from each individual, can be spurred by the encouragement and direction of a teacher. Attitude is an action or action based on the convictions and beliefs that a person has. Attitudes can reflect the feelings of a person or student towards something (Aprilisya et al., 2017; Putri & Rifai, 2019; Paños et al., 2020). Attitude has three main components, namely awareness, feeling, and behavior (Adya et al., 2021; Du et al., 2018; Narut & Nardi, 2019). Attitude as a predisposition or tendency to action will give direction to the actions or actions of students. Attitudes also affect students' skills, including science process skills (Luki & Kustijono, 2017; Rohmah, 2017; Alasim & Paul, 2019).

Science process skills are intellectual activities usually carried out by scientists in solving problems and determining scientific products (Dori et al., 2018; Fitriyani, 2019; Deratama et al., 2020). Students' science process skills are a learning approach that is oriented to the science process and is an elaboration of the scientific method. Science process skills are skills obtained from the exercise of basic mental, physical, and social abilities as a driver of higher abilities (Tawil & Liliasari, 2014; Durmaz & Mutlu, 2017; Bidayah, 2019). Currently, students' science process skills have not been developed optimally in the science learning process because the learning process has not been able to facilitate students to learn using the scientific method (Fransiska et al., 2018; Prasasti, 2017; Suryaningsih, 2017). Therefore, in order to develop students' science process skills, it is necessary to direct students to solving science problems by involving students' thinking skills and process skills. This research is in line with research conducted by previous researchers which discussed student learning attitudes (Maison et al., 2018); Puspitasari et al., (2019) and Sukendar et al., (2019). However, the research carried out is still general in nature, while this study discusses examples of experiments on 2 specific indicators of student attitudes. Then research on student interests is in line with other previous research where this study discusses student learning interests in general, while in this study discusses sample experiment on two indicators of interest, namely student involvement and feelings of happiness (Dou et al., 2018; Giglio et al., 2020; Luo et al., 2020). Furthermore, science process skills have been observe by many researcher, but in this study only discusses the process for students to think critically (Dishon, 2021; Pratiwi & Mustadi, 2021; Rusmono & Alghazali, 2019). Meanwhile, in the research we conducted, we discussed in detail the classification and experimental design and also discussed three variables, namely interests, attitudes and science process skills as well as several more complete and detailed tests that were not carried out in previous studies.

The urgency in this research is very important because there is no research that compares the interests, attitudes of students and science process skills and some of the tests used are very useful to know about the comparison of interests, attitudes and science process skills in two schools and the comparison of indicators to be tested. The attitude test is a test to find out whether the test can confront students from practical problems (Sudibyo et al., 2018). By looking at the importance of students' interests, attitudes and science process skills from the questionnaire attachments and observation attachments, the researchers concluded the following objectives to compare the interests, attitudes, and science process skills of students at Junior High School 34 Batanghari and Junior High School 35 Batanghari towards science subjects and to find out the relationship between students' interests, attitudes and science process skills to science subjects.

2. METHODS

This study uses a quantitative method with a comparative type. It is a kind of descriptive research that wants to know the basic answers about cause - effect, by analyzing the factors that cause the emergence of a certain phenomenon (Bankole & Nasir, 2020). In this case, surveys are a good procedure to use. The type of research used is a type of quantitative and comparative design survey research. Quantitative research is structured research and quantifies data to be generalized (Suwendra, 2018 ; Rukin, 2019). This research gains an understanding of a phenomenon from basic logic, usually including the perspective of the research population (albi & Johan, 2018; Rahmaningrum et al., 2020). In essence, quantitative research looks at people in the environment as well as in the social sciences. The instrument in this study used 3 questionnaires, namely a student interest questionnaire, a student attitude questionnaire and a science process skills questionnaire. There are 10 statement items in the interest questionnaire. This instrument uses a Likert scale. A scale consisting of 5 points with a very good score of 5, good is 4, enough is 3, not good is 2, and not good is 1. Each statement is representative of each indicator of interest. There are 17 statement items in the attitude questionnaire. This instrument uses a Likert scale. A scale consisting of 5 points with a very good score of 5, good is 4, sufficient is 3, not good is 2. Each statement is representative of each attitude indicator. Furthermore, there are 10 statement items in the valid science process skills questionnaire. This instrument uses a Likert scale. A scale consisting of 4 points with a very good score of 4, good is 3, not good is 2, and not good is 1. Each statement represents each indicator of science process skills. The grid of interest questionnaire instruments used are shown on Table 1.

Table 1. Grid of Student Interest Questionnaire Instruments in Science Subjects

Variable	Indicator	No. Item statement
Interest	Student Engagement	1, 2, 3, 4, 5
	Feeling Happy	6, 7, 8, 9, 10
Number of Statements		10 item

Because the student interest questionnaire in science subjects uses a linkers scale consisting of 5 categories, there is an interval in each category and intervals in each category can be seen in Table 2.

Table 2. Categories of Students' Interest

Category	Student Engagement	Feeling Happy
Very not good	5.0 - 9.0	5.0 - 9.0
Not good	9.1 - 13.0	9.1 - 13.0
Enough	13.1 - 17.0	13.1 - 17.0
Good	17.1 - 21.0	17.1 - 21.0
Very good	21.1 - 25.0	21.1 - 25.0

Then for the next instrument is grid of attitude questionnaire instruments (Maison et al., 2018). It used in this study as shown in the Table 3.

Table 3. Grid of Student Attitude Questionnaire Instruments in Science Subjects

Variable	Indicator	No. Item statement
Attitudes	Adoption of scientific attitude	1, 2, 3, 4, 5, 6, 7, 8
	Fun in learning science	9, 10, 11, 12, 13, 14, 15, 16, 17
Number of Statements		17 item

Because the student attitude questionnaire in science subjects uses a linkers scale consisting of 5 categories, there is an interval in each category and intervals in each category can be seen in Table 4.

Table 4. Categories of Student Attitudes in Science Subjects

Category	Adoption of scientific attitude	Fun in learning science
Very not good	8.0 – 14.4	9.0 – 16.2
Not good	14.5 – 20.8	16.3 – 23.4
Enough	20.9 – 27.2	23.5 – 30.6

Category	Adoption of scientific attitude	Fun in learning science
Good	27.3 – 33.6	30.7 – 37.8
Very good	33.7 – 40.0	37.9 – 45.0

The questionnaire instruments are also used in this study regarding to the grid of science process skills as shown in the Table 5.

Table 5. Grid of Student Science Process Skills Questionnaire Instruments in Science Subjects

Variabel	Indicator	No. Statement Items
Science Process Skills of students in science subjects	Classification	1, 2, 3, 4, 5
	Designing Experiments	6, 7, 8, 9, 10
Number of Statements		10 item

The intervals and categories of the problem based learning and problem solving learning model for elementary school students. The intervals and categories of students' science process skills for science subjects are presented on Table 6.

Table 6. Categories of Students' Science Process Skills

Category	Classification	Designing Experiments
Very not good	5.0-8.75	5.0-8.75
Not good	8.85-12.5	8.85-12.5
Good	12.6-16.25	12.6-16.25
Very good	16.35-20.0	16.35-20.0

(Darmaji, Astalini, et al., 2019)

Regarding the science process skills of students, this research was carried out as many as 2 samples, namely junior high school 34 Batanghari and junior high school 35 Batanghari samples with each 70 students. The sample consisted of two groups, namely the experimental group and the control group (Fromowitz, 2017). The sampling technique is purvosive sampling. Purposive sampling is a type of sampling where a study has more cases selected by itself (Haj et al., 2018 ; Hartanto & Yuliani, 2019 ; Stommel, 2020). The reason for using purposive sampling is because not all samples have criteria that match the criteria. the phenomenon under study. The most important thing in sampling should consider the analysis of the sample (Luppens et al., 2004). Therefore, the authors chose a purposive sampling technique that stipulates certain criteria that must be met by the sample used in this study. The number of samples that will be used in this study are students Junior High School 34 Batanghari and Junior High School 35 Batanghari. This research was conducted starting from distributing questionnaires and observation sheets followed by analyzing quantitative data, then finding results for follow-up. At the data collection stage, 140 students were given questionnaires in two schools, namely SMP 34 Batanghari and SMP 35 Batanghari. From the data, data analysis was then carried out, namely data coding, appropriate data assessment and data analysis.

The data analysis technique used is sampling. The use of sampling analysis technique is to reduce the potential for bias in the selection of cases included in the sample. This research was carried out starting from distributing observations, then analyzing quantitative data, then determining the results for follow-up. At the data collection stage, 140 students were given questionnaires in two schools, namely SMP Negeri 34 Batanghari and SMP Negeri 35 Batanghari. From the data, data analysis was then carried out, namely data coding, appropriate data assessment and data analysis. In describing the data in the form of attitudes and science process skills of students, the statistics used are descriptive statistics and inverential statistics. An overview or presentation of large amounts of data that includes the mean, mode, median, max. min, and the standard deviation is a descriptive statistic (Pramesti, 2018; Santoso, 2019). Inverential in the form of independent to t test, and correlation. Then test for normality, homogeneity, and linearity. Then the data was analyzed using the SPSS 26 program to get the percentage, frequency, average and standard deviation. With this random sampling condition, data deviation is carried out. Although the researcher can choose among some of the available analytical techniques, the procedures for making comparisons, asking questions, and sampling are based on concepts. In collecting data, the first step that must be done is to select students based on categories, then provide a questionnaire about students'

attitudes and interests in science subjects. Then the questionnaire data was processed using the SPSS application. The use of the SPSS application works to see descriptive statistics in the form of mean, min, max, percentage, and category of students. The data needed in research can be collected or obtained from various data sources.

3. RESULT AND DISCUSSION

Results

The following describes the results of descriptive statistics on the variables of interest, student attitudes and science process skills in science subjects. With questions about interest indicators: student engagement and feeling happy. Indicator statement about attitude: adoption of scientific attitude and enjoyment in learning science. Indicators of science process skills questions: classification and Designing Experiments. Where the results obtained from the distribution of questionnaires and observation sheets to Junior High School 34 Batanghari and Junior High School 35 Batanghari. The description of students' interest in science on indicators of student engagement is shown in the Table 7.

Table 7. Description of Students' Interest on School on Student Engagement Indicators

School	Category	Interval	F	%	Mean	Med	Min	Max
Junior High School 34	Very not good	5.0 - 9.0	0	0	3.4	3.0	2.0	5.0
	Not good	9.1 - 13.0	6	8.6				
	Enough	13.1 - 17.0	33	47.1				
	Good	17.1 - 21.0	26	37.1				
	Very good	21.1 - 25.0	5	7.1				
Junior High School 35	Very not good	5.0 - 9.0	0	0	3.8	4.0	2.0	5.0
	Not good	9.1 - 13.0	3	4.3				
	Enough	13.1 - 17.0	20	28.6				
	Good	17.1 - 21.0	35	50				
	Very good	21.1 - 25.0	12	17.1				

From the description of the Table 7, it can be seen that the comparison with the good category in Junior High School 35 is higher than the proportion of Junior High School 34 so that it can be said that Junior High School 35 is superior to Junior High School 34 in the indicator of student engagement. The description of students' interest in science on indicators of feeling happy is shown in the Table 8.

Table 8. Description of Students' Interest on School on Feeling Happy Indicators

School	Category	Interval	F	%	Mean	Med	Min	Max
Junior High School 34	Very not good	5.0 - 9.0	0	0	3.6	4.0	2.0	5.0
	Not good	9.1 - 13.0	4	5.7				
	Enough	13.1 - 17.0	26	37.1				
	Good	17.1 - 21.0	30	42.9				
	Very good	21.1 - 25.0	10	14.3				
Junior High School 35	Very not good	5.0 - 9.0	0	0	3.5	4.0	2.0	5.0
	Not good	9.1 - 13.0	4	5.7				
	Enough	13.1 - 17.0	28	40				
	Good	17.1 - 21.0	33	47.1				
	Very good	21.1 - 25.0	5	7.1				

From the description of the Table 8, it can be seen that the comparison with the good category in Junior High School 35 is higher than the proportion of Junior High School 34 so that it can be said that Junior High School 35 is superior to Junior High School 34 in the indicator of feeling happy. The description of students' attitude in science on indicators of Adoption of Scientific Attitude is shown in the Table 9.

Table 9. Description of Student Attitudes Towards Science on The Indicator of Adoption of Scientific Attitude

School	Category	Interval	F	%	Mean	Med	Min	Max
Junior High School 34	Very not good	8.0 – 14.4	0	0	3.6	4.0	2.0	5.0
	Not good	14.5 – 20.8	2	2.9				
	Enough	20.9 – 27.2	31	44.3				
	Good	27.3 – 33.6	29	41.4				
	Very good	33.7 – 40.0	8	11.4				
Junior High School 35	Very not good	8.0 – 14.4	0		3.4	3.0	2.0	5.0
	Not good	14.5 – 20.8	3	4.3				
	Enough	20.9 – 27.2	38	54.3				
	Good	27.3 – 33.6	27	38.6				
	Very good	33.7 – 40.0	2	2.9				

From the description of the Table 9, it can be seen that the comparison with the enough category in Junior High 35 is higher than the proportion of Junior High 34 so that it can be said that Junior High 35 is superior to Junior High 34 in the indicator of adoption of scientific attitude. The description of students' attitudes towards science on the indicators of Fun in learning science is shown in the Table 10.

Table 10. Description of Students' Attitudes in Science on Indicators of Fun in Learning Science

School	Category	Interval	F	%	Mean	Med	Min	Max
Junior High School 34	Very not good	9.0 – 16.2	0	0	3.7	4.0	2.0	5.0
	Not good	16.3 – 23.4	1	1.4				
	Enough	23.5 – 30.6	23	32.9				
	Good	30.7 – 37.8	38	54.3				
	Very good	37.9 – 45.0	8	11.4				
Junior High School 35	Very not good	9.0 – 16.2	0	0	3.7	4.0	2.0	5.0
	Not good	16.3 – 23.4	1	1.4				
	Enough	23.5 – 30.6	25	35.7				
	Good	30.7 – 37.8	38	54.3				
	Very good	37.9 – 45.0	6	8.6				

From the description of the Table 10, it can be seen that the comparison with the good category in Junior High School 34 is same with the proportion of Junior High School 35 so that it can be said that Junior High School 34 is same with Junior High School 35 in the indicator of fun in learning science. The description of students' science process skills in science in science on indicators of Classification is shown in the Table 11.

Table 11. Description of Students' Science Process Skills in Science on Indicators of Classification

School	Category	Interval	F	%	Mean	Med	Min	Max
Junior High School 34	Very not good	5.0-8.75	9	12.9	2.6	3.0	1.0	4.0
	Not good	8.85-12.5	15	21.4				
	Good	12.6-16.25	41	58.6				
	Very good	16.35-20.0	5	7.1				
Junior High School 35	Very not good	5.0-8.75	9	12.9	2.6	3.0	1.0	4.0
	Not good	8.85-12.5	16	22.9				
	Good	12.6-16.25	39	55.7				
	Very good	16.35-20.0	6	8.6				

From the description of the Table 11, it can be seen that the comparison with the enough category in Junior High School 34 is higher than the proportion of Junior High 35 so that it can be said that Junior High School 35 is superior to Junior High School 34 in the indicator of adoption of cclassification. The description of students' science process skills in science in science on indicators of Designing Experiments is shown in Table 12.

Table 12. Description of Students' Science Process Skills in Science on Indicators of Designing Experiments

School	Category	Interval	F	%	Mean	Med	Min	Max
Junior High School 34	Very not good	5.0-8.75	3	4.3	2.8	1.0	1.0	4.0
	Not good	8.85-12.5	15	21.4				
	Good	12.6-16.25	41	58.6				
	Very good	16.35-20.0	11	15.7				
Junior High School 35	Very not good	5.0-8.75	4	5.7	2.8	3.0	1.0	4.0
	Not good	8.85-12.5	10	14.3				
	Good	12.6-16.25	46	65.7				
	Very good	16.35-20.0	10	14.3				

From the description of the Table 12, it can be seen that the comparison with the good category in Junior High 35 is higher than the proportion of Junior High 34 so that it can be said that Junior High 35 is superior to Junior High 34 in the indicator of adoption of scientific attitude.

Normality test

The data is normally distributed as seen from the significance value, if the significance value is > 0.05. The results of the normality test are shown in Table 13.

Table 13. Normality Test of Attitude and Science Process Skills

Variable	School	Kolmogorov-Smirnov		
		Statistic	Df	Sig.
Interest	Junior High School 34	0.094	70	0.200
	Junior High School 35	0.127	70	0.200
Science process skills	Junior High School 34	0.094	70	0.200
	Junior High School 35	0.095	70	0.200
Attitude	Junior High School 34	0.099	70	0.200
	Junior High School 35	0.096	70	0.200

Linearity Test

This test is carried out in order to see a linear relationship between two or more variables. The conditions in this test, if the significance value is < 0.05. The linearity test of students' attitude and science process skills in Junior High School 34 and Junior High School 35 is described in Table 14.

Table 14. Linearity Test of Interest, Attitude and Science Process Skills Students

Variable	School	Sig.
Attitude * science process skills	Junior High School 34	0.044
	Junior High School 35	0.026
Science process skills * interest	Junior High School 34	0.043
	Junior High School 35	0.026
Attitude* interest	Junior High School 34	0.042
	Junior High School 35	0.024

Based on Table 14, it can be said that there is a linear relationship between interest, attitude and science process skills in grades VII A and VII B, obtained, the results of the linearity test obtained are the significance value has met the requirements <0.05.

Hypothesis Test

T-test

In this test, it is carried out in order to find out the difference between the variables on science subjects. The condition in this test is if the significance value is > 0.05, it can be said that the variable has no difference. If the significance value is <0.05, then the variable has a significant difference. The results obtained are shown in Table 15.

Table 15. T-Test of Student Interest, Attitide and Science Process Skills

School	Variable	N	Sig. (2-tailed)
Junior High School 34	Interest	70	0.045
	Science process skills	70	0.046
	Attitude	70	0.047
Junior High School 35	Interest	70	0.035
	Science process skills	70	0.036
	Attitude	70	0.038

From Table 15, it is found that there are differences in the interest, attitide and science process skills of grades Junior High School 34 and Junior High School 35 towards science subjects. This is evidenced by the value of sig (2-tailed) < 0.05.

Correlation Test

In this test, it is carried out in order to determine the relationship of the variable to science subjects. The condition in this test is if the significance value is > 0.05, it can be said that the variable has no relationship. If the significance value is <0.05, then the variable has a significant relationship. The results obtained are shown in the Table 16.

Table 16. Correlation Test of Interest, Attitude and Science Process Skills

Variable	N	Pearson Correlation	Sig. (2-tailed)
Interest	70	0.762	0.034
Science process skills	70	0.754	0.036
Attitude	70	0.745	0.033

From Table 16, it is found that there is a relationship between the attitude and science process skills of Junior High School 34 and Junior High School 35 with science subjects. This is proven by the value of sig (2-tailed) < 0.05.

Discussion

In the results of descriptive statistical tests, researchers tested three variables, namely: interests, attitudes and science process skills of students at Junior High School 34 Batanghari and Junior High School 35 Batanghari. There are 140 students, namely 70 at 34 Batanghari junior high schools and 35 Batanghari high schools. With the tests that have been carried out on descriptive statistics, there are 6 indicators that need to be considered. There are 2 indicators of interest used, namely student involvement and feelings of pleasure. There are 2 indicators used in attitude, namely: Adoption of scientific attitude and pleasure in learning science. There are 2 indicators of science process skills, namely: Classifying and designing experiments. The results obtained from the descriptive statistical test of students' interests, attitudes and science process skills. With the indicators mentioned above, the results of the tests that have been carried out are seen from the percentage of interests, attitudes and science process skills at Junior High School 35 Batanghari, the percentage is higher than Junior High School 34 Batanghari. This means that the interests, attitudes and science process skills of students at Junior High School 35 Batanghari are better and superior to Junior High School 34 Batanghari.

In the analysis prerequisite test or assumption test, two tests are carried out, namely the normality test and the linearity test. In the first test, namely the normality test based on the results of the student interest variable table, it can be concluded that the data is normally distributed, the normality test is obtained by the Kolmogorov-Smirnov test, the significance value is > 0.05. On the student attitude variable, it can be concluded that the data is normally distributed, the normality test is obtained by the Kolmogorov-Smirnov test, the significance value is > 0.05. Based on the results of the table of science process skills, it can be concluded that the data are normally distributed, the normality test is obtained by the Kolmogorov-Smirnov test, the significance value is > 0.05. So it can be concluded that for the normality test the data is normally distributed because the significance value is > from 0.05. In the second test, namely the linearity test, for the calculation of the linearity test in the study using the Anova test with the help of the SPSS version 26 program with the criteria if the linearity sig < 0.05 then the data pattern is linear (Astuti, 2017; Ernawati et al., 2021). The results of the linearity test, based on the student interest table, the results of the linearity test obtained that the significance value had met the requirements < 0.05,

so it could be concluded that there was a linear relationship between Junior High School 34 Batanghari and Junior High School 35 Batanghari. Based on the student attitude table, the results of the linearity test obtained that the significance value met the requirements <0.05, so it can be concluded that there is a linear relationship between Junior High School 34 Batanghari and Junior High School 35 Batanghari. Based on the table of students' science process skills obtained, the results of the linearity test obtained are that the significance value has met the requirements <0.05, so it can be concluded that there is a linear relationship between Junior High School 34 Batanghari and Junior High School 35 Batanghari.

In the T test, the results based on the table of interest variables can be seen that there are differences. This is evidenced by the value of sig (2-tailed) > 0.05. The results based on the attitude variable table can be seen that there are differences. This is evidenced by the value of sig (2-tailed) > 0.05. Based on the table variables of science process skills, it can be seen that there is a difference. This is evidenced by the value of sig (2-tailed) > 0.05. So by looking at the second result, it can be said that there is a difference between Junior High School 34 Batanghari and Junior High School 35 Batanghari. This is evidenced by the value of sig (2-tailed) > 0.05. The next test is about the correlation test. Based on the table, it can be seen that there is a relationship between interests, attitudes and science process skills of students at Junior High School Negeri 34 Batanghari and Junior High School 35 Batanghari. This is evidenced by the value of sig (2-tailed) > 0.05 .

This research is in line with previous research on science process skills (Elvanisi et al., 2018). Where the research carried out only uses descriptive tests while in this study there are several tests that are more complete in the description test, namely there are indicators, percentages, categories, mean, median, min, and max. One of the functions of the correlation test carried out in this study is to determine the ability to solve problems with confidence in the questions, because students' confidence in solving problems will affect learning outcomes. So that previous research did not test some of the tests carried out by this study. The novelty of this research is to use three variables, namely linking interests, attitudes and science process skills where there has been no research that has tested these three variables. This study tested a descriptive statistical test consisting of 6 indicators, namely 2 indicators of interest, 2 indicators of attitude, and 2 indicators of science process skills. The next test is about the analysis prerequisite test or assumption test. 2 tests carried out are normality test, and linearity test, as well as T test and correlation test. The test was conducted to find out whether there was a difference between Junior High School 34 Batanghari and Junior High School 35 Batanghari, and to see if there was a difference and influence between the variables of interest, attitude, and science process skills between the two schools. Tests were also conducted to determine whether the data were normal and linear in each school. The limitation of this study is that it only uses two indicators per variable. Where it can be better when use multiple indicators to find out in more detail about the effect of the variables of interest, attitude, and science process skills on students. Given these limitations, the researcher suggests further research to vary more indicators used in order to find out in more detail the variables studied and the researcher suggests conducting research at the junior high school level.

Science process skills are intellectual activities usually carried out by scientists in solving problems and determining scientific products (Dori et al., 2018; Fitriyani, 2019; Deratama et al., 2020). Students' science process skills are a learning approach that is oriented to the science process and is an elaboration of the scientific method. Science process skills are skills obtained from the exercise of basic mental, physical, and social abilities as a driver of higher abilities (Tawil & Liliasari, 2014; Durmaz & Mutlu, 2017; Bidayah, 2019). Currently, students' science process skills have not been developed optimally in the science learning process because the learning process has not been able to facilitate students to learn using the scientific method (Fransiska et al., 2018; Prasasti, 2017; Suryaningsih, 2017). Therefore, in order to develop students' science process skills, it is necessary to direct students to solving science problems by involving students' thinking skills and process skills. This research is in line with research conducted by previous researchers which discussed student learning attitudes (Maison et al., 2018); Puspitasari et al., (2019) and Sukendar et al., (2019). However, the research carried out is still general in nature, while this study discusses examples of experiments on 2 specific indicators of student attitudes. Then research on student interests is in line with other previous research where this study discusses student learning interests in general, while in this study discusses sample experiment on two indicators of interest, namely student involvement and feelings of happiness (Dou et al., 2018; Giglio et al., 2020; Luo et al., 2020). Furthermore, science process skills have been observe by many researcher, but in this study only discusses the process for students to think critically (Dishon, 2021; Pratiwi & Mustadi, 2021; Rusmono & Alghazali, 2019).

4. CONCLUSION

Based on the research objectives, it can be seen that there is a comparison of student interest in science subjects in junior high school. There is a comparison of science process skills in science subjects in junior high school. There is a comparison of students' attitudes towards science subjects in junior high school. And there is a relationship between interests, attitudes and science process skills in students towards science subjects. The limitation of this study is that it only uses two indicators per variable. It is better to use several indicators to find out in more detail the influence of the variables of interest, attitude, and science process skills on students. The researcher recommends further research to vary more indicators used in order to find out in more detail the variables studied and the researcher recommends conducting research at the junior high school level.

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