

Secondary school in urban: How attitude, reading fondness, and friendly communicative in private and public school?

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Abstract. This study aims to determine how the correlation and comparison of attitudes towards science, reading fondness, and friendly communicative among private and public junior high school students in Jambi City, Indonesia. The sample in this study amounted to 145 public junior high school students and 141 private junior high school students. This research uses quantitative research methods with a descriptive research design. The analysis used is the Pearson correlation and multiple linear regression. The research instrument used was a questionnaire consisting of a questionnaire on attitudes toward science, reading fondness, and communicative friendship which was adopted and adapted from previous research. The results of the Pearson correlation test study show that there is a significant and positive correlation between reading fondness and attitudes towards science, there is a significant and positive correlation between communicative friends and attitudes towards science, and there is a significant and positive correlation between reading fondness and communicative friends at school. private and public schools. The results of the regression test show that there is a positive effect of reading fondness on attitudes and a positive influence of communicative friendship on student attitudes.

Keywords: Attitude, Character, Reading Fondness, Friendly Communicative.

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Introduction

Taking education is an obligation that must be carried out by individuals as a means of creating quality humans. Education is an effort to acquire knowledge, skills and good habits in everyday life (Syahrial et al., 2019). Education can improve human resources for the better because basically education is a learning process to develop cognitive and shape the attitudes of students (Asrial, Syahrial, Kurniawan, & Septiasari, 2019; Putra & Wiza, 2019). The purpose of education is to develop the potential of students so that they can think creatively and critically which can be achieved through the learning process in the form of providing experiences to students (Setiwati, 2015). The education system in Indonesia is divided into several levels, namely the level of elementary school, junior high school, high school and college.

At each level of education, there are different levels of difficulty. At the first high school level, for example. At this level, a person will be introduced to several lessons that come from the integration of disciplines in the branches of social and natural sciences, one of which is the subject of Natural Sciences (Kurniawan, Astalini, & Anggraini, 2018). Science lessons are compulsory subjects that can be found in almost all levels of education, especially at the junior high school level. Lestari, Adisyahputra & Komala, (2019), explained that science lessons are lessons that must be followed and must be completed by elementary to junior high school students, but at the primary school level teachers often do not emphasize the importance of science lessons to their students at school. Even though in the science learning process students are required to obtain knowledge and to achieve completeness in skills and development as well as scientific attitudes in each student (Wilujeng, Setiawan, & Liliyasi, 2010). Science learning is a process, technology, product, and attitude for each student (Kurniawan, Astalini, Darmaji & Melsayanti, 2019). In general, every individual always wants success in carrying out the education he is undergoing.

Success in implementing education is influenced by several factors. One of the internal factors that influence this is the attitude of students towards objects related to science lessons which are very important in directing human behavior in the future (Kaya & Boyuk, 2011). Attitudes are feelings, beliefs, and values, which in the case of science includes enthusiasm for science, perceptions of science in schools, and the contribution of science to society or scientists. Attitudes as individual beliefs and feelings towards an object, which are based on their knowledge and beliefs about the object (Kind, Jones, & Barmby, 2013). Then we know that in science learning attitudes are very important components that must be possessed by students.

The attitude itself is a condition of mental and emotional readiness in carrying out an action, feeling, and thought that encourages someone to act when they like or dislike something (Hardiyanti, Astalini & Kurniawan, 2018; Riwahyudin, 2015). Attitude refers to a condition for someone to be ready to do something and is not a real condition. Every individual or person has a different attitude from one another (Astalini, Kurniawan, Perdana, & Kurniawan, 2019). In science education, attitudes towards science are an important factor affecting student achievement as well as student alternative conceptions or misconceptions (Kamal & Muideen, 2014). Attitude is a hypothetical construct that shows individuals likes or dislikes a certain item, which can be seen from how students respond to this, in this case, science lessons, which can be divided into positive attitudes and also negative attitudes (Kurniawan, Astalini & Anggraini, 2018). Intuitively, one can assume that positive attitudes and achievements must be related, for example, the good achievement will lead to a good attitude too, and vice versa, someone who has poor performance will lead to bad attitudes as well (Papanastasiou & Zembylas, 2012). A positive attitude towards science is related to the

use of science's positive attitude towards science (Huang, Huang, Oon, & Mak, 2019). Students' attitudes towards science subjects can be seen from how the students enjoy reading books, especially science learning books. one can assume that positive attitudes and achievements must be related, for example, the good achievement will lead to a good attitude too, and vice versa, someone who has poor performance will lead to bad attitudes as well (Papanastasiou & Zembylas, 2012). A positive attitude towards science is related to the use of science's positive attitude towards science (Huang, Huang, Oon, & Mak, 2019). Students' attitudes towards science subjects can be seen from how the students enjoy reading books, especially science learning books. one can assume that positive attitudes and achievements must be related, for example, the good achievement will lead to a good attitude too, and vice versa, someone who has poor performance will lead to bad attitudes as well (Papanastasiou & Zembylas, 2012). A positive attitude towards science is related to the use of science's positive attitude towards science (Huang, Huang, Oon, & Mak, 2019). Students' attitudes towards science subjects can be seen from how the students enjoy reading books, especially science learning books. s positive attitude towards science (Huang, Huang, Oon, & Mak, 2019). Students' attitudes towards science subjects can be seen from how the students enjoy reading books, especially science learning books. s positive attitude towards science (Huang, Huang, Oon, & Mak, 2019). Students' attitudes towards science subjects can be seen from how the students enjoy reading books, especially science learning books.

Reading is an activity that can have a positive impact in shaping student knowledge. Nursalina & Budiningsih (2014) explained that reading can help the progress of society in an area, so that they are not fooled by others, and can encourage knowledge for student achievement to develop properly. Meanwhile, according to Ikawati (2013); Soomro, Khan, Younus (2019), explained that in reading there is no negative impact in the aspect of science because reading is the key to basic knowledge, but reading activities based on anxiety will have a negative impact on students' reading ability. Then research by Soemer & Schiefele (2019), states that text that is difficult to understand can make students dislike the topic of reading. So, the negative impact of student reading can arise if students read is based on anxiety and reading that is difficult to understand is also another factor. In general, students who like to read are often considered less sociable and cannot be good friends with other students.

Making friends is an action that has been taught to an individual starting from when he was still a child at home. However, currently friendly is included in 18 characters that must be taught to students at school. According to Hartono (2014), there are 18 character values, namely religious, honest, disciplined, hard work, creative, independent, democratic, curiosity, national spirit, love for the country, respect for achievement, friendly / communicative, peace-loving, fond of reading, environmental care, social care, responsibility. According to the Ministry of Education and Culture (2016), a friendly character is an act that is fun for others and polite in speaking to everyone, a friendly / communicative character must be instilled in every child from an early age so that it is easier to obtain an education, and can influence the formation of the character of the next child. According to Wahyu (2010), character development can be obtained through education, from school to university level which can encourage them to become national children who have superior personalities as expected in the goals of national education. This character development is needed by students who are carrying out education in school. This character must be instilled in students who are carrying out school because as it is known today, humans have forgotten a lot about this character due to the development of technology. from school to university level which can encourage them to become national children who have superior personalities as expected in the goals of national education. This character development is needed by students who are carrying out

education in school. This character must be instilled in students who are carrying out school because as it is known today, humans have forgotten a lot about this character due to the development of technology. from school to university level which can encourage them to become national children who have superior personalities as expected in the goals of national education. This character development is needed by students who are carrying out education in school. This character must be instilled in students who are carrying out school because as it is known today, humans have forgotten a lot about this character due to the development of technology.

With the explanation that has been described above, the researcher feels the need to know how the relationship and comparison of the influence of attitudes on science, love of reading, and friendly characters in public and private junior high schools. The hope, this research can be a reference for teachers in determining the actions to be taken for students who are studying at school. There is also great hope that it can be understood by educational institutions so that they can produce a policy that benefits everyone who is involved in the world of education.

Methods

This research is a quantitative research with explanatory type correlational design and regression (Creswell, 2012). The quantitative research method is research that is designed through questions to find a quantity in a phenomenon and to build research numerically (Duli, 2019). This type of research used to collect data is a survey. According to Hamdi (2014), there are 3 main characteristics in this type of survey research, namely 1.) to describe an aspect or characteristic of the population's knowledge, beliefs, attitudes, or abilities of a large group of research subjects, 2.) Information collection is carried out by oral or written questions, 3.) The sample is a source of information not from the population as a whole. In this study itself uses a correlation research design,

The research sample used was 141 private high school students from Xaverius 2 Middle School and 145 public middle school students from SMPN 16 Jambi. In this study, researchers used a side purposive technique. Side purposive is done by determining the sample that will represent the population (Gay, Mills, & Airasian, 2012).

An instrument is a tool used to measure the variable to be studied. Some of the instruments used in this study depend on the variables studied. Researchers determined 3 variables for which the correlation and effect were to be determined, including a questionnaire on attitudes towards science adopted from Astalini and Kurniawan (2019), with 17 valid statement items and a Cronbach Alpha of 0.842. The reading hobby questionnaire was adapted from research by Ögeyik & Akyay (2009), with a total of 17 statements. And the communicative friendly questionnaire was adopted from various sources, namely Hasan et al., (2010), Ministry of Education and Culture (2016), Pratiwi, Masfuah & Rondli (2018), and Widiyani (2018) with 14 statement items. The entire questionnaire uses a Likert scale with 5 categories, among others, very good, good, neutral,

In this research, the data analysis technique used is descriptive statistical analysis, Pearson correlation, and linear regression analysis. Pearson correlation or better known as moment product correlation is useful for knowing how the relationship between several variables (Santoso, 2019). To calculate the data according to the analysis used, the SPSS 20 software is needed. Coupled with data analysis techniques using a research library, to find out the character of a friendly, fond of reading, and attitudes towards science students use instructional strategies carried out by teachers or educators in middle school.

Results

In the results section, the researcher entered the results of data processing using SPSS 20 software into the table according to the data analysis used, namely descriptive statistics, pearson correlation test, and t regression test.

Table 1. Friendly communicative in public school

Characteristics					Standard Deviation	Mean	Median	Mode	%
Interval	Category	Male	Female	Total					
14-25.2	Not very good	0	0	0	4.8	49.9	50	49	0
25.3-36.4	Not good	1	0	1					0.7
36.5-47.6	Neutral	25	30	40					27.6
47.7-58.8	Well	39	48	102					70.3
58.9-70	Very good	1	1	2					1.4
	Total	66	79	145					100

Based on the table above, it is known that the highest frequency is in the "good" category, with the number of students who vote as much as 102 (70.3%). Furthermore, the second largest category chosen by students was "neutral" with a frequency of choosing as many as 40 (27.6%). Then the least selected category was "very good" with a frequency of 2 (1.4%) and "not good" with a frequency of 1 (0.7%), while the one that was not selected at all was the "very bad" category with a frequency of 0 (0%). Based on the mean, median, and mode, it is known that the value obtained is in the interval 47.7-58.8, namely the "good" category, which means that these results support the data frequency category. From the data that has been shown above, It is known that out of 145 students there were 66 male students with the highest number of frequencies being in the "good" category, amounting to 39 students, followed by the "Neutral" category of 25 people, the number of students who were in the very good category was the same as the number of students in the category. not good, that is, the number of students is 1 student and the number of students who are in the very bad category is as many as 0 people.

Table 2. Friendly communicative in private school

Characteristics					Standard Deviation	Mean	Median	Mode	%
Interval	Category	Male	Female	Total					
14-25.2	Not very good	0	0	0	4.4	51.7	51	50	0
25.3-36.4	Not good	0	0	0					0

36.5-47.6	Neutral	13	8	21					14.9
47.7-58.8	Well	45	67	112					79.4
58.9-70	Very good	6	2	8					5.7
	Total	64	77	141					100

It can be seen from the table described above, with the highest number of frequencies, namely 112 (79.4%) in the "Good" category, then in the "Neutral" category of 21 (14.9%) students and followed by the "Very Good" category of 8 (5.7%) of students, then for the category "Very Not Good" and the category "Not Good" had a frequency of 0 students. Based on the mean, median, and mode described, the Student Friendly / Communicative numbers are in the 47.7-58.8 interval, namely the "Good" category. Through the table above, it is known that the number of male students is 64 out of a total of 141 students. From this number, it is known that there are 45 students in the "Good" category, 13 students in the "Neutral" category and 6 students in the "Very Good" category.

Table 3. Reading fondness in public school

Characteristics					Standard Deviation	Mean	Median	Mode	%
Interval	Category	Male	Female	Frequency					
17-30.6	Not very good	0	0	0	6.9	50.1	50	50	0
30.7-44.2	Not good	20	8	28					19.3
44.3-57.8	Neutral	37	59	96					66.2
57.9-71.4	Well	9	11	20					13.8
71.5-85	Very good	0	1	1					0.7
	Total	66	79	145					100

Based on the table above, it is known that the highest frequency is in the "Neutral" category, with the number of students who vote as much as 96 (66.2%). Furthermore, the second largest category chosen by students was not good with a frequency of choosing 28 (19.3%) and the third largest category selected by students was "good" with a frequency of 20 (13.8%). Then the category that students chose the least was "very good" with a voting frequency of only 1 (0.7%), while the category that was not selected by students was "very bad" with a frequency of 0 (0%). Based on the mean, median, and mode, it is known that the values obtained are in the interval 44.3-57.8, namely the "neutral" category, which means that these results support the data frequency category. It is known that the total number of students

is 145 people, with the distribution for male students as many as 66 people and for female students as many as 79 people. Of the 66 male students, 37 of them were in the "Neutral" category, 20 were in the "Not Good" category, and 9 were in the "Good" category. For female students, there were 59 students with the most categories namely "Neutral" with 59 students, 11 people in the "Good" category, then 8 people in the "Not Good" category, and 1 other person in the "Very Good" category.

Table 4. Reading fondness in private school

Characteristics					Standard Deviation	Mean	Median	Mode	%
Interval	Category	Male	Female	Frequency					
17-30.6	Not very good	0	0	0	5.4	56.1	56	54	0
30.7-44.2	Not good	2	1	3					2.1
44.3-57.8	Neutral	35	49	84					59.6
57.9-71.4	Well	27	27	54					38.3
71.5-85	Very good	0	0	0					0
	Total	64	77	141					100

Based on the table, it can be explained that the total frequency of students as many as 84 (59.6%) people had the "Neutral" category, then with a frequency of 54 (38.3%) the students had the "Good" category, then for the "Not Good" category there is a student frequency of 3 (2.1%) people. Based on the mean, median, and mode described, the Scientific Reading Hobby numbers in Student Private Schools are at intervals 57.9-71.4 namely the "Good" category. Through the table above it can also be seen that there are 64 male students and of these there are 35 students in the "Neutral" category, 27 students in the "Good" category, then 2 students with the "Not Good" category, then For female students, 77 students have a separate division, for the "Neutral" category there are 49 students, followed by the "Good" category with 27 students and 1 student for the "Not Good" category.

Table 5. Attitude toward science in public school

Characteristics					Standard Deviation	Mean	Median	Mode	%
Interval	Category	Male	Female	Total					
17-30.6	Not very good	0	0	0	5.9	62	61	61	0
30.7-44.2	Not good	0	0	0					0

44.3-57.8	Neutral	23	10	33					22.8
57.9-71.4	Well	40	62	102					70.3
71.5-85	Very good	3	7	10					6.9
	Total	66	79	145					100

Based on the table above, it is known that the highest frequency is in the "good" category, with the number of students who vote as many as 82 (56.6%). Furthermore, the second largest category chosen by students was "neutral" with 49 (33.8%) voting and the third largest category selected by students was "very good" with 12 (8.3%) voting. Then the category that students chose the least was "not good" with 2 (1.4%) choosing the number and the "very bad" category with the number choosing 0 (0%). Based on the mean, median, and mode, it is known that the value obtained is in the interval 27.3-33.6, namely the "good" category, which means that the results support the data frequency category. From the table described above, it can be seen that for male students there is a frequency of 40 students in the "Good" category, 23 people in the "Neutral" category, and 3 students in the "Very Good" category. In addition, for female students there were 62 students who were in the "Good" category, then there were 10 students who had the "Neutral" category, and the remaining 7 students had the "Very Good" category.

Table 6. Attitude toward science in private school

Characteristics					Standard Deviation	Mean	Median	Mode	%
Interval	Category	Male	Female	Total					
17-30.6	Not very good	0	0	0	5.8	57.3	57	54	0
30.7-44.2	Not good	0	4	4					2.8
44.3-57.8	Neutral	33	34	67					47.5
57.9-71.4	Well	30	39	69					48.9
71.5-85	Very good	1	0	1					0.7
	Total	64	77	141					100

Based on the table above, it is known that the highest frequency is in the "good" category with 100 (69%) voting. Furthermore, the second largest category chosen by students was "neutral" with 28 (19.3%) voting and the third highest category selected by students was "very good" with 17 (11.7%) voting. Then the categories that were not chosen by the students were "not good" and "very bad" with the number choosing 0 (0%). Based on the mean, median,

and mode, it is known that the value obtained is in the interval 30.7-37.8, namely the "good" category, which means that these results support the data frequency category. Based on the table above, it can be seen from 141 students that there are 64 male students with the provision that 33 of them have the "Neutral" Category, then 30 students have the "Good" category, and 1 person has the "Very Good" category. For female students, there are 39 students who are in the "Good" category, 34 students have the "Neutral" category and 4 students have the "Not Good" category.

Table 7. Correlation of attitudes, reading fondness, and friendly communicative in public schools

Variable		Attitude Toward Science	Reading Fondness	Friendly Communicative
Attitude Toward Science	R	1	.176 *	.263 **
	Sig. (2-tailed)		.035	.001
Reading Fondness	R	.176 *	1	.955 **
	Sig. (2-tailed)	.035		.000
Friendly Communicative	R	.263 **	.955 **	1
	Sig. (2-tailed)	.001	.000	

Based on the table above, it is known that there is a correlation between love to read and attitudes towards science with a significance of $0.035 < 0.05$ which is positive, the value of r is 0.176. There is a correlation between friends and attitudes towards science with a significance of $0.001 < 0.01$ which is positive, the value of r is 0.263. There is a correlation between reading fondness and friendship with a significance of $0 < 0.01$ which is positive, the value of r is 0.955.

Table 8. Correlation of attitudes, reading fondness, and friendly communicative in private schools

Variable		Attitude Toward Science	Scientific Reading Hobby	Friendly Communicative
Attitude Toward Science	R	1	0.926 **	0.987 **
	Sig. (2-tailed)		0	0
Reading Fondness	R	0.926 **	1	0.881 **
	Sig. (2-tailed)	0		0
Friendly Communicative	R	0.987 **	0.881 **	1
	Sig. (2-tailed)	0	0	

From Table 8 it can be seen the value Sig. (2-tailed) for attitudes towards science towards Scientific Reading Hobby of 0, it can be seen that there is a relationship in the r value of 0.926 and positive, between attitudes towards science and fondness of reading has a Sig value. (2-tailed) of 0 and the r value of 0.987 is positive. Furthermore, it can be seen that reading fondness for Friendly Communicative has a Sig value. (2-tailed) is 0 and the r value is 0.881 positive. Each value is Sig. (2-tailed) of each variable is less than 0.05, which means that there is a positive relationship between the three variables (Priyastama, 2020).

Table 9. T test in private school

Model	Unstandardized Coefficients		Standardized Coefficients	t	Sig.
	B	Std. Error	Beta		
(Constant)	-10,635	0.645		-16,487	0
Reading Fondness	0.270	0.021	0.250	12,663	0
Friendly Communicative	1,022	0.026	0.767	38,846	0

Based on table 9, it can be understood that in the comparison test of the T test in private schools, the significance value of the reading fondness variable is 0 and the significant value (Sig) for the friendly variable is 0. The significant value for the two variables is the same, namely 0 and is smaller than the probability value. 0.05, then there is an influence between fond of reading and being friendly with students' attitudes in science lessons in these private schools.

Table 10. T test in public school

Model	Unstandardized Coefficients		Standardized Coefficients	t	Sig.
	B	Std. Error	Beta		
(Constant)	14,347	0813		17,650	0
Reading Fondness	0.662	0.029	0.766	22,574	0
Friendly Communicative	0.290	0.042	0.235	6,937	0

In table 10, it can be seen that in the T test in public schools, the significant value of the reading fondness variable is 0 and the significant value for the friendly variable is 0.000. Where the two significant values are the same, namely 0 and smaller than the probability value of 0.05, it can be concluded that there is an influence between the reading fondness variable and the communicative friendly variable on the student attitude variable in science lessons in public schools.

Discussion

The results obtained through the Pearson correlation test indicate that there is a significant relationship between attitudes, likes to read, and friendships in private and public junior high schools. A positive attitude towards science shows that students feel happy about science (Wyss, Heulskamp, & Siebert, 2012). Positive attitudes towards science based on the results of calculations through the SPSS 20 software, due to the relationship with the variables like reading and being friendly. These three research variables reinforce one another, so that these three variables are very well applied in education in junior high schools.

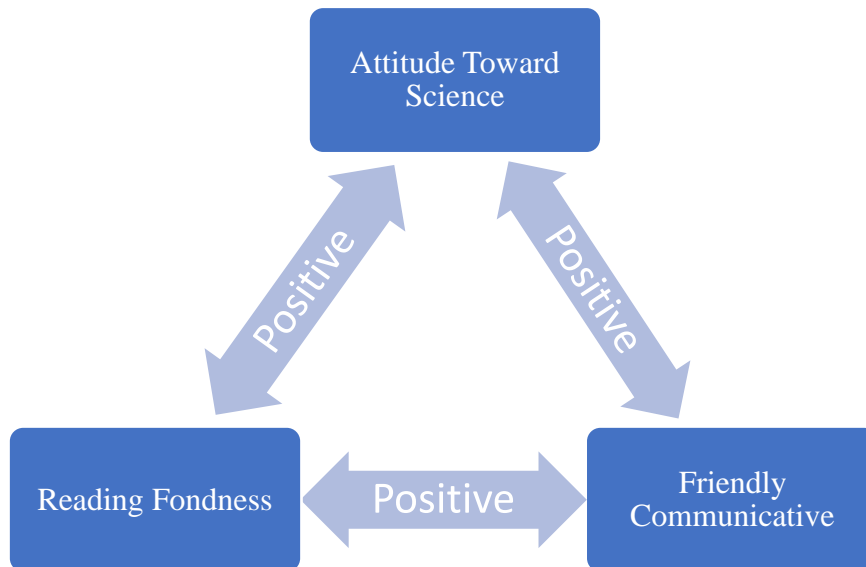


Figure 1. Correlation of attitudes towards science, reading fondness, and friendly communicative.

Attitudes towards science have a positive relationship with love of reading, especially reading activities related to science (Prokop, Prokop, Tunnicliffe, 2007). Previous research on the correlation of critical reading skills, science literacy skills, and attitude toward science has shown a close relationship between the three (Karademir & Ulucinar, 2017). The results of these studies also strengthen the results of our research on the correlation between reading fondness and attitudes towards science. Love to read is a variable that has a stronger correlation to being friendly, while for a lower attitude, although it still has a good and positive correlation. The correlation results that are weaker than friendly can be related based on the results of table 2, namely students are still hesitant to like reading. Research by Daniel, Esoname, Chima, & Udoaku (2017), shows that reading is an activity that can improve student academic performance. So, students who like to read have good cognitive and affective in subjects, especially science. Based on the results of the research we conducted and research conducted by Daniel, Esoname, Chima, & Udoaku (2017), it turns out that it is supported by the results of Boakye's research (2017), which shows that affective and cognitive can be improved by reading extensively.

Being friendly is a character that students must apply in science learning. Friendly attitude is closely related to communicating with others, for example being considerate of others, being a good listener, getting along with all friends, being able to work together, communicating well and politely, and respecting others. The relationship between friendly character and attitudes towards science can be seen from the relationship in the classroom environment, for example between teachers and students. Students who pay attention to what the science teacher says and listen carefully to what is said, means that they have a positive attitude towards science. If students are not concerned or critical about what the teacher says and don't listen to what the teacher says, it means that the student does not like science subjects (Rukavina, et al., 2012). This can be taken for example, as research by Downing et al. (2020), that the existence of a science course can reduce anxiety in classroom learning. Students who take online courses or traditional courses outside of formal classroom activities have a positive attitude towards science (Perera, et al., 2017). Students who are friendly with teachers in the classroom will not bring up negative attitudes towards science, students will not ignore the teacher speaking and are not critical when the teacher teaches, instead he

increases the time for learning science for example with this course. Based on the results in table 1, students have a good friendly character, so that students have a positive attitude towards science.

Communicative friends and love to read have a strong influence on each other's attitudes. It can be seen from the results in Tables 9 and 10, both of them have a strong influence, so that there is no difference between public and private schools in terms of the influence of reading and communicative friendship on attitudes. The communicative friendly variable has a positive effect, meaning that the better the communicative friend is, the better the student's attitude towards science. Likewise, what happened to the reading hobby variable, so that the increasing of these two variables could have a good effect on the development of science in junior high school.

Conclusion

The correlation of attitudes towards science, love to read, and being friendly is positive and significant. The influence of penchant for reading and communicative friendship on attitudes is also positive for one another. It can be seen that in private and public junior high schools there is no significant difference between the three research variables used. With this research, it is hoped that readers can understand the correlation between the three variables of this study, so that attitudes towards science subjects can increase. This study provides a solution to the reader, that attitudes towards science are not only influenced by teachers and science-related learning activities, but also have a relationship with reading fondness and student-friendly attitudes.

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