



Environmental Effect of Boarding Schools and SQ (Spiritual Quotient) Toward Learning Outcomes Physics

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ABSTRACT

This study aimed to determine the correlation between boarding schools and spiritual quotient (SQ) on learning outcomes. The method used was a survey with quantitative approach, because there are two independent variables, then use path design analysis. The results obtained, the first, there was a significant relationship between the pesantren with the student learning outcomes, $t_{\text{count}} = 2,22 > t_{\text{table}(0,05)} = 1,69$, a contribution of the boarding school environment to learning outcomes was 36.1% with the category enough. The second, there was a significant relationship between spiritual quotient with a physics student learning outcomes, $t_{\text{count}} = 4,3 > t_{\text{table}(0,05)} = 1,69$, a contribution spiritual abilities physics quotient on learning outcomes by 36% with the category enough. The third, there was a significant relationship between the pesantren and spiritual quotient on learning outcomes $t_{\text{count}} \geq t_{\text{table}(0,05)} = 1,69$.

Keywords: Environmental of boarding school, spiritual quotient, physics learning outcomes.

INTRODUCTION

Boarding school is an educational institution of Islam is growing and recognized by people around the system boarding students receive religious education through lectures or madrasa system (Sabiq & Djalali, 2012). Which is entirely under the sovereignty and leadership of one or several clerics with a characteristic that is charismatic and independent in all respects (Usman, 2013). Pesantren can categorize as non-formal institutions of Islam, because of the presence in civic education pathway has compiled its educational program and generally free from the formal provisions (Saifuddin, 2016). As educational institutions, boarding schools

function has three aspects, namely the religious services (diniyyah), social functioning (ijtimaiyyah) and educational purposes (tarbawiyah) (Sabiq & Djalali, 2012).

These days there has been a rapid growth in the field of education. Boarding school in this case also does not want to be left behind. Education in schools today has changed from what others think about boarding school since the first (Mustajab, 2015). Pesantren today is not a boarding school as before which purpose is score theologians, but schools today do not view like that anymore, now boarding aim is not only to score a religious expert, but experts in the field that practiced by religious basis is strong, including in the area of physics

exaggeration in the field of spiritual and emotional (Ahyadi, 2015).

Spiritual field becomes essential because of the potential for spiritual strength in humans carry two elements namely the power and skill, where it is most needed two students when it will be on the community (Madhuri, 2017). Spiritual intelligence by Ary Gina worship: the ability to give meaning to every behavior and activities through the steps and thought is given, to the whole human beings and patterns of thought integralists (Miterianifa, 2015). So formed on each and everyone - every student to learn in worship and always surrender to God (Basuki, 2015).

Learning physics in boarding schools actually not much different, but the most significant difference is the environment in which students carry out activities outside of school, or within the scope of the boarding schools, the school environment is critical in the learning process because the school environment is the most significant primary environment after the family environment (Martina, 2019).

Environment that supports the learning process consists of two things, namely the internal environment and the external environment. The internal environment is something that has to do with teaching and learning in the classroom, while the external environment is everything outside the school who support the teaching and learning process (Silalahi, 2017). In the boarding school is also highly visible strong spiritual education (Rus'an, 2013).

Pondok Pesantren Al-Hamid is a boarding school that has implemented a modern education system in it. Pesantren housed at Cilangkap East Jakarta is in it not only had a religious upbringing but also a general education has also been modern. In the morning until the afternoon, the students will go to school just like students outside schools, afternoon to evening would begin religious education activities.

Some of the research underlying this study include research conducted by Khoirunnisa (2011), against Nurul Ulum MA students academic year 2010/2011, amounting to 112 students, in the sampling used proportional random sampling method. Collecting data in

this study using questionnaires and documentation methods. To reveal the boarding school environment and student learning to the learning achievement of economic subjects MA student of accounting in the 2010/2011 school year, Nurul Ulum used descriptive analysis of the percentage. The hypothesis testing using t-test and F test with SPSS.

Descriptive study showed the rate of boarding school environment for students MA Nurul Ulum 2010/2011 academic year has been good, MA student learning Nurul Ulum 2010/2011 school year well but has not been optimal, and student achievement is still not excellent. Hypothesis testing results show that the boarding school environment has a positive effect on student learning, boarding school environment has a positive impact on student achievement, how to learn a negative impact on student achievement and hypothesis testing results also show the boarding school environment negatively affects learning achievement through learning as an intervening variable.

Based on these results, it can conclude that the boarding school environment has a positive effect on student achievement and learning also has a positive impact on student achievement. Therefore, students are advised to improve how learning can be optimized to enhance learning performance is better.

This study is also relevant to the research developed by Rampisela et al. (2017), with title Emotional Intelligence Relationships And Spiritual Intelligence With Student Achievement in Junior High School Katolikst. Francis Pineleng, a sample of 48 students. A sampling technique that uses is total sampling. The research instrument used are questionnaires and observation sheets. Analysis of data on emotional intelligence performed using the chi-square test was obtained p-value 0.011. This means that the p-value is smaller than α (0.05), and the analysis of data on spiritual intelligence done using the chi-square test was obtained p-value 0,000, this means the value of p is smaller than α (0.05).

Based on research - previous studies, this research combines in a boarding school envi-

ronment with Spiritual Quotient on learning outcomes Physics.

RESEARCH METHODS

The method used was a survey method with a quantitative approach (Mifthahurrachman, 2015). This type of research used to examine the relationship between variables. By using design analysis as follows path (Hakam, Sudarno, & Hoyyi, 2015):

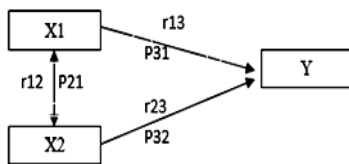


Figure 1. Design Research

Based on Figure 1, the research design using path analysis where X_1 is the first independent variable in the form of a learning environment, X_2 is the second free variable that is spiritual intelligence, and Y is the dependent variable that is the result of learning. While on the line - connecting lines there is a correlation between variables where r_{13} is the correlation coefficient boarding schools with learning outcomes, P_{13} is the path coefficients boarding schools with learning outcomes r_{23} is the correlation coefficient, SQ learning outcomes, P_{23} is a path coefficients SQ learning outcomes, r_{12} is the correlation coefficient with the SQ boarding environment, and P_{12} is a path coefficients boarding schools with SQ.

The design of this study aims to determine the correlation between the two variables are boarding schools and SQ on the dependent variable physics student learning outcomes. In this study, students was given a questionnaire-type questionnaire to determine the boarding environment and also to determine the level of SQ students.

This research was conducted at the boarding school Al Hamid East Jakarta with students of science class as respondents as many as 42 people. Here are the stages of the research workflow.



Figure 2. Flowchart Research

Based on the above flowchart research instrument used in this study, using two variables, namely the environment and SQ instrument. The researchers made the tools in this study because the research instrument that will be used to perform measurements to produce accurate quantitative data, then the tool is made must have a scale, which in this study using a Likert scale.

Instrument tested with normality, homogeneity, reliability, and validity. T-tests do hypothesis testing with the following criteria:

H_0 : If no a significant influence role of spiritual quotient boarding schools and the learning outcomes of physics.

H_1 : if there is a significant influence role physical and spiritual environment on physics learning outcomes Quotient.

RESULTS AND DISCUSSION

Based on field observations and from different sources of literature, the results of student learning is influenced by many aspects, one of which is the environmental aspects and psychological students. From these observations serve as a foothold authors to conclude the provisional hypothesis that the influence of the spiritual quotient boarding school environment with the learning outcomes of physics. In this study, students were given a questionnaire. Filling questionnaire boarding schools that have ten

Table 1. Questionnaire about the Boarding School Environment

No.	Statement
1	The available field at boarding is very adequate for sports
2	The condition of the school building is comfortable because it is clean and beautiful
3	The ustadz (teacher) in the cottage ignored his students
4	The toilets in the cottage are dirty and uncomfortable
5	The cottage rooms are dirty so it is not comfortable to rest and study there
6	The rooms are clean and comfortable to rest and study
7	Communicate with room caregiver ustadz if there is a need
8	Having a bad relationship with the teacher
9	The mosque at the boarding is very comfortable for worship
10	The situation of the school is calm and cool so that it becomes a spirit of learning
11	Friends support each other
12	Clean and comfortable school toilets
13	Relations with the cleric at the cottage are bad so lazy to learn
14	Religious material is practiced in daily life
15	Participate in organizations in schools and boarding schools
16	The situation of the school building disturbs the comfort of learning
17	Gamemates at the cottage study hard together
18	Bad friend behaviour so follow him
19	If given the trust of the cleric / teacher will be maintained
20	The value of togetherness in boarding is used as a life value
21	Having bad relations with fellow students
22	Religious values are used as a reference in life
23	The teacher explains the material and gives the assignment
24	The water in schools and huts is clean so that health is maintained
25	Teachers and religious teachers teach good things
26	The relationship with the teacher went well
27	The teacher and the teacher give a bad example
28	Explanation of the material from the teacher can be understood
29	Maintain the trust of friends
30	Religious lessons in the hut interfere with general lessons at school
31	Friends advise when doing wrong
32	Participate in extracurricular activities
33	Very dependent on parents
34	The lesson can be understood because the teacher explains the material with real-world cases
35	A traitor's friend if given trust
36	My family ignored me at the boarding
37	Ustadz caregivers give enthusiasm for learning
38	The role of the clerics is very large in the spirit of learning
39	The relationship with the cleric in the boarding is harmonious
40	Have a good relationship with fellow students
41	The general subject matter of the teacher can be understood
42	The clerics always give advice to their students

indicators, the environmental survey shown in table 1.

Produced the following values; the indicator questionnaire facility with numbers 1, 2, 16, 12, 4, 9, 6 students had the lowest at 32% and the percentage of the highest value with a rate of 93.71%, with a list of statements that are shown in Table 1, it can be said that The facility is adequate boarding school environment. The assessment results are shown in Table 2.

Table 2. The results of the environmental questionnaire with facility indicators

No.	Facility indicators	
	Statement	Percentage
1.	1	93.71%
2.	2	88.57%
3.	4	42.28%
4.	6	82.28%
5.	9	87.42%
6.	12	84.57%
7.	16	32%

The next indicator of the questionnaire boarding schools is about the natural conditions that there are two statements are shown in Table 3.

Table 3. The results of environmental questionnaire with indicators of natural conditions

No.	Natural Condition Indicators	
	Statement	Percentage
1.	10	88.57%
2.	24	91.42%

The percentage in Table 3 shows that the water conditions in boarding schools relatively clean so that students maintained their health.

A third indicator is a common material that is taught by a teacher, with the questionnaire results shown in Table 4.

Table 4. Results of the Environmental Questionnaire with Material Indicators from the Teacher

No.	Indicators of General Materials Teachers	
	Statement	Percentage
1.	23	89.71%
2.	28	81.71%
3.	34	76%
4.	41	86.28%

Based on the percentages in Table 4 were obtained that the lessons of the teacher can sometimes be understood, but sometimes also vice versa.

The next indicator is the matter of religion. This indicator only contains two statements that are shown in the Table 5.

Table 5. The results of the environmental questionnaire with indicators of religious material

No.	Indicators of Religious Materials	
	Statement	Percentage
1.	14	90.28%
2.	30	37.71%

From Table 5, shows that there is material religion practiced by the students. The next indicator in the form of the human environment that is around the boarding school are shown in Table 6.

Table 6. The results of environmental questionnaire with the neighborhood indicators

No.	Neighborhood Indicators	
	Statement	Percentage
1.	3	30.28%
2.	7	86.28%
3.	8	21.71%
4.	13	25.71%
5.	21	31.42%
6.	26	94.85%
7.	37	90.85%
8.	38	96.57%
9.	39	94.85%
10.	40	92%
11.	42	94.8%

Based on Table 6, found that the human environment around the boarding school was instrumental in establishing the spirit of learning his students.

The next indicator is the association of students that includes statements such as in Table 7.

Table 7. Student Interview Questionnaire Results

No.	Indicators of Student Association	
	Statement	Percentage
1.	15	70.85%
2.	17	78.28%
3.	32	88.57%

Based on the percentages in Table 7 shows that students sometimes join the activities of the organization and have playmates are often invited to learn together.

The next indicator of the attitude shown in Table 8.

Table 8. The results of questionnaire with student attitudes indicators

No.	Students Attitude Indicator	
	Statement	Percentage
1.	11	88%
2.	31	77.71%
3.	36	25.71%

According to the Table 8 above indicates that the attitude of the student's friends support each other and encourage one another if any wrongdoing.

The next indicator is the values, attitudes and beliefs are shown in Table 9.

Table 9. The results of questionnaire with values, behavior, and trust indicators

No.	Indicator of value	
	Statement	Percentage
1.	20	92%
2.	22	87.42%
3.	33	65.14%
Indicator of behaviour		
1.	18	32.57%
2.	25	98.28%
3.	27	21.71%
Indicator of confidence		
1.	19	89.71%
2.	29	86.85%
3.	35	39.42%

The results of these indicator means that students value highly upholds the value of togetherness, and sometimes rely on parents, and religious values are used as a reference in life. The results of behaviour indicators show the students do not follow the bad behaviour committed by his friend because the teacher always taught that good and never a bad example. Confidence indicators showed students maintain the trust given and not betraying each other, as well as if entrusted by the preacher be maintained.

At the service, the indicator has an average

value of percentage of 73.06%, with the lowest at 60% and the interest of the highest value of 90%. At the service indicator from 8 statements had a good category stating that students in pesantren Al-Hamid get excellent service. From 8 report, there are four statements which have a unique category, three statements have a good category and one statement that has less good category. This service indicator is shown in table 10.

Table 10. Service indicator questionnaire results

No.	Service indicators		
	to-statement	Percentage	Information
1.	1	91.4%	Very good
2.	3	65.7%	Well
3.	5	79%	Well
4.	6	35.2%	Not good
5.	7	85.7%	Very good
6.	13	76.2%	Well
7.	15	90.5%	Very good
8.	19	88.6%	Very good

So it can be concluded that some services are in pesantren Al-Hamid, who has an excellent service means that the boarding services strongly support the activities of male and female students in learning or other things, and there is also inferior services can be seen from how students evaluate questionnaire statements.

In carrying out the duties and obligations indicators, have average percentage is 68.84%, the lowest rate is at 50.9%, and the highest percentage is 85.5%. Of the 11 statement questionnaire given to boarding students, Al-Hamid has a good rate, so it can be said that in carrying out the duties and obligations of the boarding well-organized. It shown in Table 11.

From table 11, it can be concluded that in carrying out the tasks and duties at the school there are some that have been very good in its implementation and there are some pretty good in practice.

In an indicator of the expectations that the average percentage is 85.5%, the lowest rate is 41.9%, and the highest percentage of 98%. This can be seen in Table 12.

Table 11. Results of questionnaire indicators carrying out duties and obligations

No.	Implement indicator duties and obligations		
	Statement	Percentage	Information
1.	9	67.6	Well
2.	11	77.1%	Well
3.	12	84.4%	Very good
4.	16	59.0%	Pretty good
5.	22	45.7%	Pretty good
6.	23	92.4%	Very good
7.	24	75.2%	Well
8.	27	82.9%	Very good
9.	29	40.0%	Pretty good
10.	32	95.2%	Very good
11.	35	73.3%	Well

Table 12. Hope indicator questionnaire results

No.	Expectations indicator		
	Statement	Percentage	Information
1.	17	91.4%	Very good
2.	23	94.3%	Very good
3.	26	98.1%	Very good
4.	30	41.9%	Pretty good

It can be concluded that the expectations contained Al-Hamid boarding in learning activities, and the others are excellent, seen from the statement of a questionnaire completed by students who are Al-Hamid boarding.

Furthermore, the indicator choices have an average percentage is 70.2%, the lowest rate at 48%, which is the highest percentage 95.2%. Of the 11 statements, 7 statement that had the highest percentage, as shown in Table 13.

Thus, from the above, we can conclude that the percentage of clerics or teachers give students the freedom to make choices. For example, there is freedom during certain days in which students in the setting of environmental decisions in it. For example, there are students on a particular day want to learn, want to play football and other things.

In indicator, understand the strengths and weaknesses of the average percentage is 67.89%, the lowest rate is the percentage of 58.1% and the highest percentage of 90.5%. Of indicators to understand the strengths and weaknesses have 6 statement, which has the highest percentage 5 statement and one report

had the lowest percentage, can be seen in the table 14.

Table 13. Results of options indicators questionnaire

No.	Determining Indicator Options		
	Statement	Percentage	Information
1.	2	85.7%	Very good
2.	4	78.1%	Well
3.	8	87.6%	Very good
4.	11	53.3%	Pretty good
5.	12	65.7%	Well
6.	18	56.2%	Pretty good
7.	25	72.4%	Well
8.	29	95.2%	Very good
9.	31	48.6%	Pretty good
10.	33	83.8%	Very good
11.	34	82.9%	Very good

Table 14. Indicators questionnaire results Understanding the strengths and weaknesses

No.	Indicators Understanding the Strengths and Weaknesses		
	Statement	Percentage	Information
1.	14	58.1%	Pretty good
2.	20	86.7%	Very good
3.	21	83.8%	Very good
4.	28	76.2%	Well
5.	31	81.0%	Very good
6.	37	90.5%	Very good

Of that percentage, it can be concluded that in understanding the strengths and weaknesses have been very good, that is to say in pesantren Al-Hamid teachers and chaplain understands the strength or weakness of each student. Thus, there are handling themselves in addressing the attitudes of the individual students.

The amount of influence between variables described as follows. Based on test results, the correlation coefficient between neighborhood schools with physics learning outcomes of 0.19 belongs in enough correlation with the direction of a positive correlation. A positive correlation indicates the same direction between two variables so that when the boarding school environment well, then study the results obtained would be good.

Boarding environmental contribution to the

learning outcomes of physics at 36.1% and the remaining 63.9% influence by other variables. In testing the significance of a simple correlation obtained value = $2.22 > 1.69$ significance level $\alpha = 0.05$. Because then H_0 refused in other words, the data concluded that there is a significant relationship between the pesantren (X_1) with the student learning outcomes (Y).

While the influence of the Spiritual Quotient of the results obtained in the form of learning physics Correlation coefficient between X_2 and X_3 is 0.6; it is high. Contributions influence self-concept to physics learning outcomes by 36% and 64% controlled by other factors.

In testing the significance of a simple correlation obtained value = $4.3 > 1.69$ significance level $\alpha = 0.05$. Because then H_0 is rejected and receive H_2 . but at significance level $\alpha = 0.01$, then H_0 is rejected and receive H_2 . In other words, the data concluded that there is a highly significant relationship between spiritual quotient (X_2) with a physics student learning outcome (Y).

CONCLUSION

The influence of pesantren environment variables with student learning outcomes obtained value of $t_{\text{count}} = 2.22 > t_{\text{table}(0.05)} = 1.69$ with a significance level of $\alpha = 0.05$. Because $t_{\text{count}} > t_{\text{table}}$, H_0 is rejected and accept H_1 , but at the significance level $\alpha = 0.01$ $t_{\text{table}} < t_{\text{table}}$, then H_0 is accepted and reject H_1 in other words the data concluded that there is a significant relationship between the pesantren environment (X_1) and student learning outcomes (Y). With the contribution of self-concept to learning outcomes of 36.1%, the category is sufficient. For the influence of spiritual ability Quotient on physics learning outcomes obtained value of $t_{\text{count}} = 4.3 > t_{\text{table}} = 1.69$ with a significance level $\alpha = 0.05$. Because $t_{\text{count}} > t_{\text{table}}$, H_0 is rejected and accepts H_2 . but at a significance level $\alpha = 0.01$, $t_{\text{count}} > t_{\text{table}}$. $4,3 > 2,45$ then H_0 is rejected and accepts H_2 . In other words the data concluded that there was a very significant relationship between spiritual Quotient (X_2) and student

physics learning outcomes (Y). With the contribution of spiritual ability Quotient to physics learning outcomes by 36%, the category is sufficient. As for the influence of the pesantren and spiritual environment Quotient on learning outcomes obtained $t_{\text{count}} > t_{\text{table}} = 1.69$ with a significance level $\alpha = 0.05$ then H_0 is rejected, and at a significance level $\alpha = 0.01$, $t_{\text{table}} = 2.45$ then H_0 is rejected and concluded that there was a very significant influence between the environment of pesantren (X_1) and spiritual Quotient (X_2) on learning outcomes (Y).

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