



The Analysis of Students' Learning Interest Toward Physics at Madrasah Aliyah

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Received: February 15, 2022

Revised: October 12, 2022

Accepted: January 25, 2023

Published: January 31, 2023

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DOI: [10.29303/jppipa.v9i1.1303](https://doi.org/10.29303/jppipa.v9i1.1303)

Abstract: This study was intended to understand students' interest in physics at Madrasah Aliyah AL-Muhajirin Pandan. The subject of this study is XII MIA students at Madrasah Aliyah AL-Muhajirin Pandan, while the object of this study is the interest of XII MIA students at Madrasah Aliyah AL-Muhajirin Pandan. The method used was a qualitative approach for case study. The data collection technique was questionnaire, and then the data was analyzed by using interactive model of Miles and Huberman. The analysis result shows that students' interest toward physics at Madrasah Aliyah AL-Muhajirin Pandan already has the percentage in about 70% in average. This study provides knowledge that other researchers can use to identify the unknown factors affecting students' interest in physics.

Keywords: Physics learning; Students' interest; Questionnaire

Introduction

Madrasah Aliyah Al Muhajirin Pandan is one of the Senior High Schools in Sungai Tebelian, Sintang, West Kalimantan with B accreditation. Most of the educators are still honorary teachers. Besides, Madrasah Aliyah Al-Muhajirin Pandan is lack teachers, so almost every teacher has to handle more than one subject. It causes the teaching and learning process runs ineffectively.

Based on the observation that the researcher has done before, students lack concentration toward the teacher's explanation in transferring the material. They think that physics is full of formulas and theories, so this reason brings students to become uninterested in physics.

As an educator, the teacher tries to find out how students think about physics (Suwonjandee et al., 2018; Pols et al., 2021). There are several possibilities that make students think that physics is uninteresting. They are students' lack of curiosity, students' lack of concentration, and boring teaching management implemented by the teacher (Ting & Siew, 2014; Oliver et al., 2017). Based on the statement above, there will be

a question, what is the interest of students at Madrasah Aliyah Al-Muhajirin Pandan toward physics?

According to bloom, interest is what we call subject-related effect, which is included in a student's interest and attitude toward a subject (Wibowo & Pelipa, 2018) (Potvin & Hasni, 2014). To improve students' interest in learning physics, they must be excited and curious about the subject (Djudin, 2018; Harackiewicz et al., 2016). Certainly, the teacher has an important role in it. By explaining the material clearly and facilitating students with a fully equipped laboratory, students are expected to have more interest in learning physics (Bernhard, 2018).

In order to find out whether students are interested in physics, the indicators of students' learning interest are: (1) interest in physics, (2) interest in physics teacher, (3) achievement in physics, (4) finding the benefit of learning physics, (5) initiative in learning physics, (6) concentration in learning physics, (7) willing to learn physics, (8) there are goals to reach in the learning process.

How to Cite:

Budiarti, L.W., & Jumadi, J. (2023). The Analysis of Students' Learning Interest Toward Physics at Madrasah Aliyah. *Jurnal Penelitian Pendidikan IPA*, 9(1), 167-170. <https://doi.org/10.29303/jppipa.v9i1.1303>

Method

This research is a qualitative case study. It will use many techniques in collecting the data, they are questionnaires and documentation to gain a conclusion. Subject of this study is a class consisting of 25 students of XII MIA at Madrasah Aliyah Al Muhajirin Pandan.

The questionnaire will be given to students as the research subject. The open-ended questionnaire will be used in order to get students' detailed answers about their opinion toward physics. In making the questionnaire, the construct is needed. The questionnaire consists of 25 questions about interest in physics. The construct is shown in Table 1.

Table 1. Construct Students' Interest

Aspect	Description	Indicator	Questions	Number of items	Item number
Interest	Like	Interest in the subject	Do you think by learning physics we can get closer to nature?	5	1, 2, 3, 4, 5
		Interest in the teacher	Do you think the physics teacher is attractive?	3	6, 7, 8
		Goals to reach in the learning process	Do you want to study physics education at university?	3	23, 24, 25
Satisfaction		Achievement in Physics	Does the physics material give many benefits theoretically and practically?	3	9, 10, 11
		Finding the benefit of learning physics	Do you think by learning physics we can find out the correlation between nature and physics material?	2	12, 13
		Involvement	Initiative in learning	Do you write any important information teacher explains in the physics class?	5
Concentration in learning	Do you listen to your teacher while he/she is explaining physics carefully?		2	19, 20	
Willing to learn	When you get difficult material do you intend to learn about it more until you understand it better?		2	21, 22	

To analyze the data easier, the steps of data analysis that will be used are data collection, data reduction, data display, and conclusions.

Results and Discussion

After giving the questionnaire to students of XII MIA, the data gained will be presented in Table 2.

Table 2. The Data Guided of Student After Giving the Questionnaire

Questions	Alternative Answer	F	%
Students like learning physics	Positive	13	52
	Negative	12	48
	Total	25	100
Learning physics means getting closer to nature	Positive	22	88
	Negative	3	12
	Total	25	100
Physics makes students bored and tense	Positive	6	24
	Negative	19	76
	Total	25	100
Physics is difficult and most the students do not like it	Positive	7	28
	Negative	18	72
	Total	25	100
The physics teacher is attractive	Positive	25	100
	Negative	0	0
	Total	25	100

Questions	Alternative Answer	F	%
Curiosity in learning	Positive	21	84
	Negative	4	16
	Total	25	100
Physics is full of formulas and theory	Positive	1	4
	Negative	24	96
	Total	25	100
Students are satisfied with physics learning result	Positive	17	68
	Negative	8	32
	Total	25	100
Unsure of the learning result	Positive	20	80
	Negative	5	20
	Total	25	100
Whomever the teacher is, learning physics is important	Positive	23	92
	Negative	2	6
	Total	25	100
Physics is related to daily life phenomena	Positive	25	100
	Negative	0	0
	Total	25	100
Physics is related to real life	Positive	24	96
	Negative	1	4
	Total	25	100
Studying physics gives much benefits	Positive	25	100
	Negative	0	0
	Total	25	100
Review the physics material	Positive	13	52
	Negative	12	48
	Total	25	100

Questions	Alternative Answer	F	%
Study the next physics material the day before.	Positive	12	48
	Negative	13	52
	Total	25	100
Write every important information	Positive	19	76
	Negative	6	24
	Total	25	100
Keep quiet and do not give any questions in studying physics	Positive	4	16
	Negative	21	84
	Total	25	100
Focus on the teacher's explanation	Positive	20	80
	Negative	5	20
	Total	25	100
Do not feel curious when the teacher gives the task	Positive	2	8
	Negative	23	92
	Total	25	100
Study more about the difficult material and questions	Positive	23	92
	Negative	2	8
	Total	25	100
Do not finish any difficult test	Positive	20	80
	Negative	5	20
	Total	25	100
Studying physics education in a university	Positive	4	16
	Negative	21	84
	Total	25	100
Talk too much when the teacher is explaining the material	Positive	20	80
	Negative	5	20
	Total	25	100
By studying physics, it helps students study another subject	Positive	24	96
	Negative	1	4
	Total	25	100
Work in physics field job	Positive	7	28
	Negative	18	72
	Total	25	100

Based on the data above, the researcher found out that the learning interest of the students at Madrasah Aliyah Al Muhajirin as concluded from the questionnaire is precisely good. It is shown in the indicator of students' interest in the subject and toward the teacher. Many factors that can improve students' interest in physics are the willingness of the students themselves, and the support from teachers, parents, and friends. Besides, students generally think that physics is difficult and full of formulas. Even though the teacher is attractive; it cannot be the single factor to get students' interest in learning physics. Many students also state that they like the subject but not the teacher. This aspect is related to school facilities to develop teaching and learning processes, where students need more practice than theory.

In addition to it, busy parents also affect students' interests. They generally make students spend time more playing with gadgets than studying. Teachers are also having to improve their teaching strategy so students can accept all the material well.

96% of students assumed that physics is full of formulas and theory, then 4% stated that physics is not. This point is supported by the data showing that 72% of students do not like physics and assumed that physics is difficult, while another 28% stated that physics is easy. 76% of students chose physics as boring, and only 24% left stated that they did not agree with it.

In the teaching and learning process, 84% of the students chose to keep quiet and did not try to ask any question they do not understand, while only 6% participated. There are also only 48% of students studying for the next lesson. Besides that, 92% of students do not feel curious and finish the task given by the teacher. Table 23 shows that students of Madrasah Aliyah Al Muhajirin Pandan do not have any goals to reach in studying physics. There are only 4% of students are willing to study physics at university. Also, only 7% of students intended to work in the physics field in the future.

Students' willingness to study is already satisfying, as shown by the percentage where 92% of the students intend to study more about the material and only 8% of students ignore it. Students also write the important material explained by the teacher even though they are not instructed to. 76% of students write the material and 24% of students state that they do not.

Students keep the focus on studying physics in the 80% range, and 20% of students do not. While if only 100% of students keep the focus on the teaching-learning process, they can realize that physics is related to daily life and help them get closer to nature. This is shown by 88% of students agreeing to the statement that physics can help them closer to nature. 84% of students state that they have high curiosity about subjects which is related to nature and their real life. The data also shows that 68% of students are satisfied with their study results and only 32% of students are unsatisfied.

Hereby, teachers' support should be maximum because there are only 52% of students like physics, and 48% state, they do not like it. 100% of students agree that their physics teacher is attractive. Besides, 80% of students do not talk to friends while the teacher is explaining materials, and only 20% of students do. It also shows that friends can be another factor in students' interest in studying physics. 96% of students state that by studying physics they can correlate it with any other subjects, and 4% of students do not agree with this statement.

Conclusion

The analysis of students learning interest in physics at Madrasah Aliyah Al Muhajirin Pandan is conducted to find out the student's interest in learning. From the questionnaire, it can be concluded that XII MIA students

at Madrasah Aliyah Al Muhajirin Pandan have a good interest in learning with a total percentage is 70%. In the analysis of each indicator of learning interest, all XII grade students of Madrasah Aliyah Al Muhajirin Pandan have: In the indicator "interest toward subject" is in the good category with a percentage is 100%, In the indicator "interest toward teacher" is in the very good category with the percentage is 64%, In the indicator "there are goals to reach" is in the good category with the percentage is 64%, In the indicator "achievement in learning" is in the good category with the percentage 96%, In the indicator "finding the benefit of learning physics" is in the good category with the percentage 64%, In the indicator "having initiative in learning physics" is in the good category with the percentage 60%, In the indicator "concentration in learning" is in the good category with the percentage is 60%, and In the indicator "Willingness to learn physics" is in the good category with the percentage is 80%.

References

- Bernhard, J. (2018). What matters for students' learning in the laboratory? Do not neglect the role of experimental equipment! *Instructional Science*, 46(6), 819–846. <https://doi.org/10.1007/s11251-018-9469-x>
- Djudin, T. (2018). How to Cultivate Students' Interests in Physics: A Challenge for Senior High School Teachers. *Jurnal Pendidikan Sains*, 6, 16–22. <https://doi.org/10.17977/jps.v6i1.10543>
- Harackiewicz, J. M., Smith, J. L., & Priniski, S. J. (2016). Interest Matters: The Importance of Promoting Interest in Education. *Policy Insights from the Behavioral and Brain Sciences*, 3(2), 220–227. <https://doi.org/10.1177/2372732216655542>
- Oliver, M. C., Woods-McConney, A., Maor, D., & McConney, A. (2017). Female senior secondary physics students' engagement in science: a qualitative study of constructive influences. *International Journal of STEM Education*, 4(1), 4. <https://doi.org/10.1186/s40594-017-0060-9>
- Pols, C. F. J., Dekkers, P. J. J. M., & de Vries, M. J. (2021). What do they know? Investigating students' ability to analyse experimental data in secondary physics education. *International Journal of Science Education*, 43(2), 274–297. <https://doi.org/10.1080/09500693.2020.1865588>
- Potvin, P., & Hasni, A. (2014). Interest, motivation and attitude towards science and technology at K-12 levels: A systematic review of 12 years of educational research. *Studies in Science Education*. <https://doi.org/10.1080/03057267.2014.881626>
- Suwonjandee, N., Mahachok, T., & Asavapibhop, B. (2018). Evaluation of Thai students and teacher's attitudes in physics using Colorado Learning Attitudes about Science Survey (CLASS). *Journal of Physics: Conference Series*, 1144(1), 12124. <https://doi.org/10.1088/1742-6596/1144/1/012124>
- Ting, K., & Siew, N. M. (2014). Effects of Outdoor School Ground Lessons on Students' Science Process Skills and Scientific Curiosity. *Journal of Education and Learning*, 3. <https://doi.org/10.5539/jel.v3n4p96>
- Wibowo, D. C., & Pelipa, E. D. (2018). Effect of Recitation Method to the Students' Interest and Learning Results. *Jurnal Studi Guru Dan Pembelajaran*, 1(1), 16–20.