Identification of Students' Level of Understanding of Straight Motion Materials Class X MIPA SMAN 1 Muaro Jambi

Langgeng Yoga Wicaksono¹, Auliya Ramadhanti², Nadia Natalia Simamora³

¹Universitas Jambi, Jambi, Indonesia ^{2,3}Universitas Negeri Yogyakarta, Yogyakarta, Indonesia

Article Info

Article history:

Received Jul 18, 2022 Revised Ags 22, 2022 Accepted Sep 10, 2022

Keywords:

Conceptual Understanding Senior High School Students

ABSTRAK

Purpose of the study: This study aims to identify level understanding draft student class X MIPA against Theory motion straight.

Methodology: A Study conducted on 13-19 October 2020 at SMA Negeri 1 Muaro Jambi. Study conducted with instrument in the form of a questionnaire containing question about Theory motion straight. Data collection techniques are carried out with method student fill in the questionnaire given in the form of question about Theory motion straight via the google form link.

Main Findings: From the research conducted generate data 42% of sample have level lack of understanding to Theory motion straight , 36% of sample have level enough understanding to material, 12% of sample have level good understanding , 8% sample have level very poor understanding to material and only 2% of samples that have level very good understanding to Theory motion straight taught. So can concluded that participant students at SMAN 1 Muaro Jambi have level lack of understanding to Theory motion straight that is taught and learned.

Novelty/Originality of this study: Understanding that is ability somebody for understand or understand something after something that is known or remember, include ability for catch meaning from the meaning of the material studied, which is stated with decipher contents tree from something reading, or change the data presented in form certain to other forms.

This is an open access article under the **CC BY-NC** license



97

Corresponding Author:

Auliya Ramadhanti,

Universitas Negeri Yogyakarta, Yogyakarta, Indonesia

Jl. Colombo Yogyakarta No.1, Karang Malang, Daerah Istimewa Yogyakarta, 55281, Indonesia

Email: auliyadhanti@gmail.com

1. INTRODUCTION

Currently, education is still a very good and very important tool in the effort to foster the next generation to come. Therefore, education should be a priority and get more attention, both on a family scale, community, nation and state. Education is still a crucial and interesting issue to discuss, in line with its relationship with efforts to achieve the goals of education itself.

Education is able to change the behavior and knowledge of every individual human being, therefore education is very, very important. The success of education in a country can be a benchmark for the progress of human resources in that country. Advanced human beings are the product of a quality and quality education system [1]. Basically education is a conscious effort made to develop the potential of human resources in this case students by guiding and providing the best facilities for their learning process [2]. In the complex structure of society, the function of education undergoes the process of specialization and institutionalization with formal education which

Journal homepage: http://cahaya-ic.com/index.php/ISEJ

is always side by side and interconnected with the informal education process outside of school. So education is a social activity that occurs in society that is not just a process that takes place in schools [3].

In essence, education is a conscious, deliberate and planned effort carried out in order to hone the development of the potential and abilities of each individual so that it is more useful for the interests of his life as individuals and as citizens of society by choosing appropriate content (material), activity strategies and techniques [4]. In line with the important role of education, it requires continuous and continuous development according to the times and in accordance with the goals of education in Indonesia [5].

The very basic need of every individual is a good and quality education. Because it is also a good image of a nation or country. The better the quality education in a country, then the more good quality _ than source power humans in the country [6]. A process in skeleton influence participant educate so that you can adapt self the best with environment so that will arise change in him , that's reality education . and one the place where could realize continuity of the learning process teach is school, place between teachers and students interact in the educational process [7].

Education can carried out by family, community or government carried out through activity guidance , teaching and training that can takes place in a institution school and outside _ school . Integration Among field administrative or leadership , field instructional or curricular and field construction required To use achievement destination quality education [8]. According to [9] suggested understanding draft is ability students in the form of mastery amount Theory lesson , but capable disclose return in another easy form understand , give data interpretation and able apply suitable concept with structure cognitive he has .

Understanding that is ability somebody for understand or understand something after something that is known or remember, include ability for catch meaning from the meaning of the material studied, which is stated with decipher contents tree from something reading, or change the data presented in form certain to other forms [10]. According to [11] understanding draft is ability catch notions like capable uncover something material presented into the more shape understood, able give interpretation and ability apply it.

2. RESEARCH METHOD

This study aims to determine the level of understanding of students in class X MIPA at SMA Negeri 1 Muaro Jambi in the straight motion material being studied. Study carried out on the 13th 19 October 2020 located in SENIOR HIGH SCHOOL Country 1 Muaro Jambi. Study conducted with instrument in the form of questionnaire which containing question about Theory motion straight . Data collection is carried out by students with fill in the questionnaire given in the form of question about Theory motion straight via google form link.

3. RESULTS AND DISCUSSION

This study uses a quantitative descriptive research design. The research was conducted to determine the level of students' understanding of the material in straight motion. The population of the study was students of class X IPA at SMA Negeri 1 Muaro Jambi which consisted of 5 classes. And the research sample is students with a total of 50 students selected by cluster random sampling technique. The research instrument used was a questionnaire in the form of 27 multiple choice objective test questions with 5 alternative answer choices. Data collection conducted with spread instrument test via the google form link to sample study for knowing level understanding they about Theory motion straight .

Criteria level understanding student based on conversion score student according to [12] can seen in the table as following:

Table 1. Criteria for Students' Level of Understanding

Score	Criteria
80.1 - 100.0	Very well
65.1 - 79.0	Well
55.1 - 65.0	Enough
39.1 - 55.0	Not enough
0.0 - 39.0	Very less

П

ISSN: 2716-3725

From the results of research that has been carried out, the following results are obtained:

Table 2. Percentage Level of Understanding

Tuble 2. I electruge Bever of Chaerstanding		
Score	Frequency	Percentage
79.1 – 100.0	1	2%
65.1 - 79.0	6	8%
55.1 - 65.0	18	36%
39.1 - 55.0	21	42%
0.0 - 39.0	4	8%

From the data that has been obtained from the results of the study, it can be described statistically in the following table:

Table 3. Research Results

Table 3. Research Results		
Statistics	Score	
mean	55.4380	
median	57.3500	
Minimum	33.30	
Maximum	85.10	
Range	51.80	
Standard	10.34889	
Deviation	10.34889	

Understanding the concept is a very important thing in the process learning, because with an understanding of the concept, students will understand more correctly about the material being taught [13]. According to [14] understanding draft is ability for give description or explanation something state verbally and also give something solution or conclusion with using related media like graphics, and so on. Based on research that has been conducted at SMA Negeri 1 Muaro Jambi, it turns out that could seen that level understanding Among each individual samples are very varied and varied . From the data that has been collected forever research, can seen that at about 42% or about 21 people from sample have level lack of understanding to Theory motion straight. While 36% or about 18 people from sample have level understanding enough to Theory motion straight, 12% or 6 people from sample have good understanding about Theory motion straight, 8% or 4 people from sample have level very poor understanding and even can said fail in Theory motion straight. And only 2% or 1 person has level great understanding good to Theory motion straight .

Difference level understanding this can occur because a number of factors, including interest learning and teachers who teach. When the child educate no have interest study to the material being taught so will influence result study or level understanding them. While for teacher factor, teachers are required to do innovation to learning if want to student have level high understanding to a material.

4. CONCLUSION

Understanding means understanding carefully. Understanding is one of the most important things in the process student education. From the research conducted, it can be concluded that the understanding of straight motion material at SMA Negeri 1 Muaro Jambi is still lacking. This could be due to several factors, such as lack of interest in learning to teachers who teach.

ACKNOWLADGMENT

The researcher would like to thank all stakeholders who have given permission to the researchers to do service and those who helped this research

REFERENCES

- [1] D. A. Kurniawan, A. Astalini., A. D. Putri, "Identifying Attitude Implications for Science Problems, Interest in Science Learning Index, and Interest in a Career in Science in Middle School Students in Muaro Jambi Regency," Journal of Eduphysics vol. 2, no. 1, 2018.
- [2] A. Astalini., D. A. Kurniawan., S. Sumaryanti. "Students' Attitudes towards Physics Lessons at SMAN Batanghari District," Journal of Physics Education, vol. 3, no. 2, 2018.
- [3] M. Anwar, "Philosophy of Education," Jakarta: Kencana, 2019.
- [4] S. Syafril., Z. Zulhendri, "The Basics of Educational Science," Depok: Kencana Prenada Mediagroup, 2017.
- [5] D. A. Kurniawan., A. Astalini., N. Kurniawan, "Students' Attitudes towards Science Lessons at SMP Muaro Jambi Regency, Jambi Province," Curricula: Journal Of Teaching And Learning, vol. 4, no. 3, 2019.

100 ☐ ISSN: 2716 - 3725

[6] H. Pathoni., D. A. Kurniawan., A. Astalini., N. Kurniawan, "Correlation Analysis of Students' Attitudes and Discipline Against Science in Junior High School Students in Jambi Province," Journal of Physics and Scientific Education, vol. 5, no. 2, 2018.

- [7] D. Darmaji., J. Jufrida., D. Oktaviana, "Application of Multiple Intelligences-Based RPP to Improve Students' Activities and Physics Learning Outcomes on Materials of Heat and Heat Transfer for Class X MIA 4 SMA Negeri 3 Jambi City," Journal of Eduphysics vol. 1, no. 1, 2016.
- [8] M. Hendri., D. Darmaji., A. Alwan, "Factors Encouraging MIA SMAN Students to Take Out-of-School Tutoring in Telanaipura District, Jambi City," Journal of Eduphysics vol. 2, no. 1, 2017.
- [9] V. Sanjaya, "Educational Process Standard Oriented Learning Strategy," Jakarta: Pranada Media Group, 2010.
- [10] S. Sudaryono, "Learning Evaluation Basics," Yogyakarta: Graha, 2012.
- [11] Vestari, D. (2009). Phenomenon-Based Learning Model with Guided Inquiry Approach to Improve Concept Understanding Refraction Light and Science Generic Skills for Junior High School Students . SPS: University of Education Indonesia: Bandung, 2009.
- [12] S. Arikunto, "The Basics of Educational Evaluation," Jakarta: Earth Literacy, 2013.
- [13] E. N. Yulianti., et al, "The Ability to Understand Mathematical Concepts of Class VIII Kuok Junior High School Students through the Group Investigation Type Cooperative Learning Model," Scholar's Journal, vol. 2, no. 2, pp. 93, 2018.
- [14] A. Susanto, "Theory of Learning and Learning in Elementary Schools," Jakarta: Kencana Prenamedia Group, 2013.