

ANALYSIS OF WEBSITE-BASED PHYSICS LEARNING MEDIA DEVELOPMENT ON STUDENTS' PHYSICS LEARNING INTEREST

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ABSTRACT

This study aims to analyze physics learning media's development using the website on students' interest in learning physics during the pandemic. The research method used is the literature study research method. This research method is carried out by collecting relevant data from various reading sources in the form of books, journals, and other reading sources that can support researchers in solving the subject matter under study. This study indicates that the physics learning media that has been developed based on a website can increase interest in learning physics.

Keywords: *Learning Media, Physics, Learning Interest*

INTRODUCTION

The development of science and technology currently has an impact on various aspects of life, especially in the field of education. During a pandemic, learning cannot be done face-to-face, which requires a tool that can be used as a communication tool between teachers and students so that learning continues to run well. In the learning process, learning media is one of the factors that can support learning in the classroom, especially distance learning.

Media is a tool that has the function of conveying messages (Sanaky 2013). Media becomes a means of connecting and good communication between the two parties and is used by all circles of society. Learning media is a tool that functions and can be used to convey learning messages. Learning media functions as a learning tool to facilitate the learning process, improve the efficiency of the learning process, and help student concentration in the learning process. The development of learning media with smartphones can make it easier for students to access material anytime and anywhere. In addition, it can also increase student interest in a given material.

The use of smartphone-based learning media is one of the applications of 21st century learning styles (Calimag et al., 2014, p. 90). The use of this type of learning media has the potential to help increase students' interest in learning and motivation to learn. Li et al. (2010, p.171) mentioned that the implementation of learning using smartphones can have a positive impact on cognitive, metacognitive, affective, and socio-cultural dimensions. Smartphones and tablets have the power to transform the learning experience. This type of learning media allows learners to learn not limited by time and place with interesting applications (Squire, 2009, p.70; Meister, 2011, p. 28).

Physics is a science that studies the symptoms that occur in nature. The purpose of learning physics is for students to understand and apply the concepts,

principles and symptoms that occur in nature in everyday life. Physics lessons are one of the lessons that are not liked by students and are considered difficult, because there are many theories and formulas in physics material that require an understanding of basic mathematics to derive physics formulas and work on physics problems. Physics learning media is a medium used to convey physics material. Development of physics learning media needs to be done because learning media is one that supports the success of the learning process. Web-based physics learning media can increase students' interest in learning physics so that students find it easier to understand physics material that is considered difficult.

Interest in learning is a condition of a person who has more attention to an object accompanied by a desire to know and learn about it. Interest in learning physics is the interest of students to deepen the physics material taught by educators. Currently students prefer to play smartphones rather than study, sometimes students also prefer to study using smartphones rather than studying using books. In addition, conventional teaching methods used by educators in teaching that make learning bored so that student interest in learning physics. Supposedly in teaching physics material, educators can use a learning media development in the form of applications or websites that have been developed by many researchers today. Based on the explanation above, researchers are interested in conducting research with the title "Analysis of Website-Based Physics Learning Media Development on Students' Physics Learning Interest during the Pandemic". This study aims to analyze the development of physics learning media using websites on students' physics learning interest during a pandemic.

METHODS

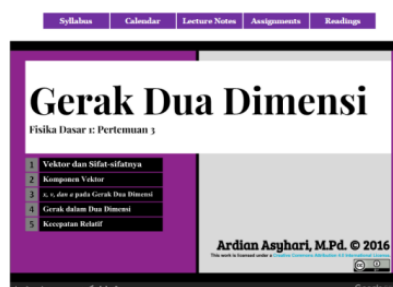
This research uses a literature study research method. This research method is carried out by collecting relevant data from various reading sources in the form of books, journals and other reading sources that can support researchers in solving the subject matter under study. Data collection is done by finding relevant sources to serve as a reference for researchers in completing this research.

RESULT & DISCUSSION

Figure 1 is a web-based learning media developed by Fakhri Azri and Kiar Vansa Febrianti from the State University of Jakarta. The development of this media is devoted to high school students in Class X on the subject of Dynamic Electricity. the development of this media is also a research conducted to develop web-based physics learning media on the subject of dynamic electricity in accordance with the standards and feasibility of learning media. The results of this media testing show that the learning media developed are in the good category with the material content component scoring 91.35%, the technical component of the media 83.8%, and the results of the field trial 78.1%. So that the developed website is feasible to be used as Physics learning media for class X high school on the subject of dynamic electricity.



Figure 1. Web-based learning media



Development of *Web-based Learning Media Enhanced Course: Developing Web-Logs for Basic Physics I Learning*

The picture above is the development of learning media conducted by Ardian Asyhari and Rahma Diani from the Faculty of Tarbiyah and Keguruan UIN Raden Intan Lampung. This study aims to develop Web-blogs with the 4D procedure R&D method (*define, design, develop, disseminate*) which can support the *Web Enhanced Course* (WEC) to support the learning of Basic Physics 1 material on Two-Dimensional Motion in Physics Education Study Program students at UIN Raden Intan Lampung, and determine the assessment criteria through product validation from instructional design experts, learning media experts, and web designer experts. As well as knowing student responses related to product attractiveness and ease of use of the products developed. The results of this study are shown after being validated by instructional design experts, learning media experts, and website designer experts, obtained a score with "very good" criteria and obtained a score with "very good" criteria after a limited trial (N = 15) and an expanded trial (N = 90) in terms of the attractiveness of the design and ease of use of the initial product and the final product of the WEC developed.

Development of Website-Based *Virtual Physics Laboratory* on the Subject of Dynamic Electricity is a research conducted by Ni Ketut Rahayu, Andri Suherman and Firmanul Catur Wibowo. This study aims to develop a website-based virtual laboratory simulation on the subject of dynamic electricity. The method used in this research is *Research and Development* (R&D). This research instrument is a feasibility test questionnaire for the expert team and a student response questionnaire using a Likert scale. This research produces a website-based *virtual physics laboratory* on the subject of dynamic electricity for practicum-based learning for class XII high school students. The results showed that based on the assessment of material experts and media experts, the *virtual laboratory* simulation media had very feasible criteria with an average of 95% and had very good criteria on the students' responses with an average of 96.03%.

Based on the three studies above, the development of learning media is one of the solutions to the problems faced during this pandemic, where educators need media that attracts students' attention so that they want to participate in learning enthusiastically, especially physics subjects. Because based on the experience of researchers, students prefer to be directly involved in learning such as conducting an experiment rather than just listening to the explanation of the material presented. In addition, students prefer to look for learning resources on websites or blogspots rather than books because it can be done anywhere and anytime. With website-based learning media, students can utilize their smartphones in a more positive direction.

Then the content or components contained in the website are also things that must be considered because if the content is complete, for example, it contains material, sample questions, experiment simulations and evaluations because the completeness of the website content is also one of the factors that attract students' attention or interest in learning material, especially physics material.

CONCLUSION

From the explanation above, it can be concluded that the development of learning media is currently being carried out by many academics and researchers in dealing with learning problems during the pandemic. Web-based physics learning media developed must contain complete components so that physics material can be conveyed properly. In addition, this media is also used to attract interest in learning physics and also as a positive utilization of technology. Suggestions for future research should be more interesting again, then in the development of the media should be more focused and well organized.

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