

DEVELOPMENT OF PHYSICS COMIC LEARNING MEDIA CONTEXTUAL MODEL WITH POE METHOD ON THE SUBJECT OF EFFORT AND ENERGY ON INTEREST IN LEARNING PHYSICS

Rudi Haryadi¹ , Annida Fauziah ²
Sultan Ageng Tirtayasa University¹⁾²⁾
annidafauz123@gmail.com

ABSTRACT

This study aims to determine the development of learning media for contextual model physics comics with the POE method on the subject of effort and energy towards the interest in learning physics. This study uses literature study research methods (literature) from various relevant sources such as articles, books, or data to support researchers in solving the problems raised. This research method is carried out by searching for and collecting data that is relevant and by the situation. It can be used as a reference for researchers in completing this research. This study indicates that the use of comic learning media can increase students' interest in learning physics. In addition to that, by applying the POE method, it is also possible to improve students' higher-order thinking.

Keywords: *Comic; POE Method; Learning Interest*

INTRODUCTION

Physics is a science that studies physical phenomena that occur in nature. physics learning has the aim of understanding and applying concepts, principles and symptoms that occur in everyday life. The application of physics theory in everyday life is very much, but sometimes we do not realize it. Physics is one of the subjects that is considered difficult and disliked by students because it requires an understanding of basic mathematics to understand the theories and formulas in physics.

Physics learning is the process of inviting students to learn physics concepts related to nature that can be applied in everyday life. Physics learning is said to run well and successfully if the teacher succeeds in understanding the objectives and results of learning, Sutrisno (in Sari 2018).

Interest in learning is an interest in a particular object accompanied by curiosity to learn and deepen this. Hidi and Renninger believe that interest affects three important aspects of a person's knowledge, namely attention, purpose and learning level (Wang & Adesope, 2016). In contrast to motivation as a factor driving knowledge, interest is not only a factor driving knowledge but also as a factor driving attitudes (Hidi, 2006). Furthermore, the definition of interest in learning is an attitude of obedience to learning activities, both regarding planning study schedules and initiatives to make these efforts seriously (Olivia, 2011). In the physics learning process, the problem is found that the lack of student interest in learning physics is caused by the teacher's teaching method which still uses conventional methods such as the lecture method and the use of learning media or teaching materials that are less attractive to students.

Novitasari et al., 2016 stated that every learning requires media or teaching materials to help students understand the material to be delivered more easily and effectively. Learning media is a tool used to help clarify learning messages so that learning objectives can be achieved in accordance with what is desired. Learning media has a communication function, motivation function, meaningfulness function, perception equalization function and individuality function (Wina Sanjaya, 2014). According to Avrilliyanti, et al (2013) Teachers must find ways to make learning fun and not boring during the learning process. One way is to use comics as learning media.

Comics are a form of cartoon that reveals characters and implements a story that is closely related to the image and is also designed as entertainment for readers (Daryanto, 2010). This comic media, one of the interesting learning media used in physics learning because by entering the material to be conveyed into stories and characters will make students curious so that students are motivated to learn it. In addition, according to Khairi, 2016 comics are media that are simple, easy, and clear. The use of comics as a medium in learning has an important role, because the presentation of comics brings students into an atmosphere of excitement. Excitement in learning is a burst of emotion that activates the brain's nerves to be able to record lessons more easily.

The subject matter used in this comic is effort and energy using a contextual model, where the content of the material is related to phenomena or events that often occur in everyday life.

From the description above, the problem that occurs is the lack of student interest in learning physics so that the development of learning media in the form of comics with the subject matter of effort and energy. Therefore, researchers conducted a study entitled "Development of Physics Comic Learning Media Contextual Model with POE Method on the Subject of Effort and Energy on Physics Learning Interest". The purpose of this study was to determine the development of physics comic learning media contextual model with POE method on the subject of effort and energy on physics learning interest.

METHODS

This research uses literature study research methods from various relevant sources such as articles, books or data that can support researchers in solving the problems raised. This research method is carried out by searching and collecting data that is relevant and in accordance with the problem and can be used as a reference for researchers in completing this research.

RESULT & DISCUSSION

Learning media is an instrument used to convey learning messages. According to Basyiruddin, et al (2002: 11) in Nur Ainun Zahra et al, the Association for Education and Communication Technology (AECT) defines media as any form used for an information distribution process. While the Education Association (NEA) defines as objects that can be manipulated, seen, heard, read or talked about

along with instruments that are used properly in teaching and learning activities, can affect the effectiveness of instructional programs.

The learning media used are physics comics with the subject matter of effort and energy. Comics have a key role in instruction, namely their ability to create student interest. Comic learning media contains images that form a story. The story is based on the material to be studied so that it will look interesting (Nur Ainun Zahra et al, 2020).

In this study, researchers applied the contextual model into comics to attract motivation and interest in learning physics. Contextual Teaching and Learning (CTL) model is a learning concept that helps teachers link the material taught with the real world situation of students and encourage students to make connections between their knowledge and its application in everyday life (Trianto, 2009). The application of this CTL model is assisted by the POE method. The predict, observe, explain (POE) method is a learning method that uses the three main steps of the scientific method, namely prediction or making predictions; observation or observation; and explanation or explanation between conjectures and existing concepts (Suparno, 2007 in M. Fayakun et al, 2015).

The subject matter discussed in the development of this comic is effort and energy, the application of effort and energy material is often found in everyday life so it is appropriate to use the CTL model in providing material. The material to be given must be adapted to phenomena or natural events that are often experienced by students so that students can more easily understand the concept of the material to be conveyed so that learning objectives can be achieved properly. The learning steps using physics comics CTL model through POE method are as follows:

1. Prediction

At this stage students are given a problem that often occurs in everyday life in the form of images in comics. This problem must be able to stimulate students' stimulus with their experience and knowledge so that students produce a hypothesis or temporary conjecture from the problem. In this case, the teacher must provide the right problems and interesting images in accordance with the material discussed, namely effort and energy.

2. Observation

In the observation stage, students can conduct experiments or practices to prove the hypothesis that has been made in the previous stage. In this case, the physics comics of effort and energy are used as instructions for conducting experiments. At this stage, students are allowed to discuss with each other with their classmates or other friends in one class. The role of the teacher at this stage is to supervise the learning process so that it continues to run conductively.

3. Explanation

At this stage the role of the teacher is needed to explain the theories that have not been conveyed. In addition, the teacher also plays a role in straightening out answers that are not correct so that students can know the truth.

The development of physics comics CTL model with POE method can increase students' interest in learning physics because the POE method allows students to be more active in the learning process, providing opportunities for students to construct their knowledge, communicate their thoughts and experiences so that students can better understand the concept of the material presented. In

addition, students are also given the opportunity to observe and experiment on problems that are related to phenomena in everyday life. The POE method is a scientific procedure that students can do as an effort to train students' higher order thinking skills (M. Fayakun et al, 2015).

CONCLUSION

From the research that has been described, it can be concluded that learning physics using comics can attract students' interest and motivation to learn because it is more fun than using textbooks as usual. The CTL model with the POE method applied in physics learning on the subject of effort and energy can increase student activeness in the classroom and can also create more dynamic learning conditions.

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