

The Urgency of Interactive Learning Media in Improving Students' Physics Learning Outcomes

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Article History

Received: September 18th, 2023

Revised: October 21th, 2023

Accepted: November 02th, 2023

Abstract: Using media in the classroom can improve comprehension, convey trustworthy and engaging facts, facilitate data interpretation, and condense material for students. The purpose of this study is to evaluate how urgently or significantly interactive learning materials can enhance student learning outcomes. The research methodology employed is a survey of the literature, which involves reading several articles from both domestic and foreign publications about the application of interactive learning media to enhance learning outcomes. The study's findings demonstrate how crucial it is to employ interactive learning resources to raise student learning objectives.

Keywords: interactive, learning media, learning outcomes.

INTRODUCTION

The use of technology in learning media is the goal of national education which requires educators to be able to master and adapt according to current developments (Ash Siddiqy & Suputra, 2022). Learning media is an important component in education, especially in the learning process. In line with Wulandari et al (2023) which states that learning media is one of the factors that plays an important role in the learning and teaching process. Learning media's function in the educational process is to act as a connecting, information-gathering, and message-channeling medium between teachers and students, fostering an effective and efficient learning environment (Balandin et al., 2010). Meanwhile, according to Putri et al (2019) by presenting engaging and trustworthy data, condensing information, facilitating data interpretation, and improving knowledge, the use of media in the classroom can benefit students. One could argue that the availability of educational media facilitates communication between teachers and students during the learning process.

Learning media that suits the needs of learning activities will create effective and efficient learning activities so that the material delivered by teachers to students can be absorbed optimally. With effective and efficient learning, it is hoped that student learning outcomes can be improved. In line with opinion Tekege (2017) that the purpose of using information and communication technology in the classroom is to improve student learning outcomes and the quality of each student's use of technology in a way that is more appropriate and useful. This will ultimately increase the

effectiveness of the learning process' implementation. Instructional media can assist students in achieving better learning outcomes in this way.

However, the reality is that the use of learning media during the teaching and learning process is still very rare due to the lack of adequate facilities to support learning activities using learning media. The media used by teachers does not contain images, graphics, audio and video. Learning is generally more teacher-centered. Students are less involved in discussing and asking for information related to the learning material, but do no more than listen passively, memorize formulas, and repeat the expected answers so that the demands of the nature of the learning process standards are not met (Irwandi et al., 2015). Currently, many students are still not interested when learning is taking place and not many students are active in learning. This is because learning tends to be monotonous and the learning media used is only the same (Meidilana et al., 2020). Therefore, the teacher only provides media through drawings he makes himself on the blackboard, reinforced with narration from the teacher. In other words, the teacher only uses a whiteboard and markers. This learning process is also applied in physics learning.

Physics is a science that studies natural phenomena. Wahyuni & Sari (2020) States that Physics is a subject related to students' daily lives. According to opinion Arkundanto (2007) Physics is a science that

studies events in nature. Therefore, it is necessary to use learning media in physics subjects. Because there are some materials and experiments that are dangerous for students to carry out or observe directly. Apart from that, the material in physics learning is also abstract, so models or animations are needed that can illustrate this to students. In this way, it becomes easier for students to imagine. As technology develops, interactive learning media has become one of the supports for successful learning, especially in physics material.

According to Putri et al (2019) by presenting engaging and trustworthy data, condensing information, facilitating data interpretation, and improving knowledge, the use of media in the classroom can benefit students. For media use to be effective, it is necessary to select learning materials that suit the individual learning style of the students. This allows them to study according to their preferred method, which may be kinesthetic, aural, or visual. Learning is no longer boring because to the availability of learning media (Jember, nd). Indirectly, learning physics is no longer dry and monotonous for students.

Learning tools that can help students in the learning process to understand the materials provided are interactive learning tools. Interactive media is constructive media, which crosses the lines between learning, students, and the learning process (Tarigan & Siagian, 2015). According to Septiyawati (2022) Media Learning Interactive is a multimedia-based tool that can explain messages or information from teachers to students, in which process there is active two-way communication between multimedia and users (students) with the aim of facilitating the learning process. The benefit of using interactive media as a learning resources is to expand and increase knowledge and train students' independence to think creatively and innovative in learning.

The advantage of interactive learning media is that it can be used wherever students are and there are no space and time limitations for students to learn independently. The use of this media can also demonstrate something that cannot be done in real life so that learning activities feel more alive, clarifying the presentation and explanation of written/oral learning material (Putri et al., 2019). Having an interactive learning media will be very helpful in the learning process. The learning process is usually carried out using media sources that have been used for a long time so that learning becomes less interactive. Interactive learning media provides the latest variations so that the learning

progress is not monotonous. This can trigger students' curiosity about physics that is closely related to everyday life. Interactive learning media presents physics phenomena that can be observed in our daily lives. To find out more fully and in detail about the benefits of learning interactive media in improving higher order thinking skills, the writer conducts an in-depth literature review that will display previous research data on the use of interactive learning media in the learning process.

METHODS

This type of research is descriptive qualitative research with a library research method. Library research is a research activity carried out using library data collection methods, collecting information, reading, recording and processing research data obtained from 1 reference book, articles and 18 journals from national and international journals related to the urgency of interactive learning media in improving student learning outcomes.

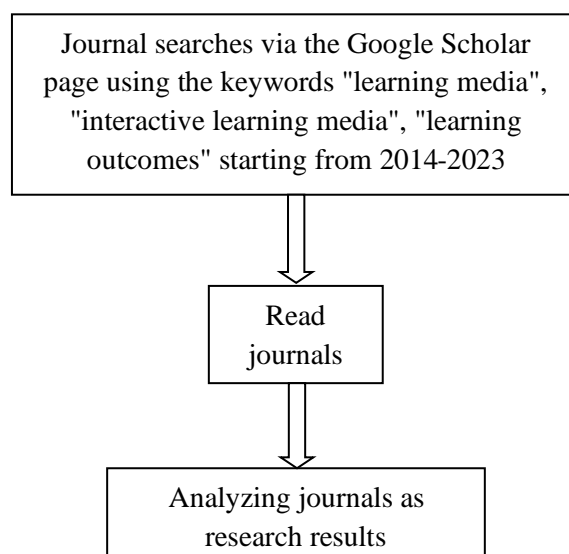


Figure 1. Research Procedure Scheme

FINDINGS AND DISCUSSION

Conventional learning will make students bored and not understand the subject matter optimally. Hence the need for a touch of technology in the teaching and learning process. The inability of teachers to design the learning process through the use of computer-based technology can have an

impact on students' low interest in learning. This low learning interest can affect student learning outcomes. In accordance with the (Rizky Meuthia Karina, Alfiati Syafrina, 2017) which states that student study interest is considered one of the internal factors that also has a close relationship with student learning outcomes, a lack of student interest leads to low student learning outcomes.

According to Rihani et al. (2022) learning media is a supporting factor for the success of the learning process, therefore teachers must use appropriate learning media that suit the characteristics of students. Good learning media must meet several requirements. Learning media must increase student motivation. Apart from that, the media must also stimulate students to remember what they have learned, activate students to provide responses, provide feedback and also encourage students to carry out practices correctly. This is done so that the use of media is right on target so that the learning media used is appropriate to the students' learning type, so that students have the opportunity to learn based on their learning type, whether they have a kinesthetic, or auditory, and visual learning type.

The advantages of using educational tools are twofold. Firstly, they provide educators with clear guidance on how to effectively reach their teaching goals, enabling them to present learning materials in a cohesive manner and make the content more engaging, thereby enhancing the overall quality of the learning experience. Secondly, these tools have the potential to boost students motivation and interest. Whwn students learn in a pleasant environment with the aid of educational media, they can tink critically and analyze the subject matter provided by their teacher more effectively. As a result, student can comprehend the material more easily, leading to improved learning outcomes.

The teaching and learning process can be simplified and made engaging, enablilng students to grasp lessons easily. This enhanced approach aligns with the learning objectives, boosting the efficiency of student learning. By incorporating captivating and student-tailored learning materials, it fosters concentration, elevates motivation, and offers a holistic learning experience, ensuring a deeper understanding of the provided materials. This method encourages active participation of all students, allowing them to be creative and realize their potential.

Learning media that helps students in the learning process to understand the material

provided is by utilizing interactive learning media. Interactive media is classified as constructive media which consists of learning, students and the learning process (Tarigan & Siagian, 2015). According to Septiyawati (2022) interactive learning media is a multimedia-based tool that can convey messages or information from teachers to students, in the process of which there is active two-way communication between multimedia and users (students) with the aim of facilitating the learning process. The advantage of this use of Interactive Media for learning resources is to increase knowledge and train students' independence in order to think creatively and innovatively in studying.

The advantage of interactive learning media is that it can be used wherever students are and there are no space and time limitations for students to learn independently. The use of this media can also demonstrate something that cannot be done in real life so that learning activities feel more alive, clarifying the presentation and explanation of written/oral learning material (Putri et al., 2019).

This interactive learning media can be applied to physics subjects. Critical and creative thinking skills are needed in physics subjects. According to (Nurdin, nd) physics is a scientific discipline that requires students to have the ability to use algebra and geometry and change from specific to general and vice versa. According to opinion Arkundanto (2007) physics is a science that studies events in nature. Therefore, it is necessary to use learning media in physics subjects. Because there are some materials and experiments that are dangerous for students to carry out or observe directly. Apart from that, the material in physics learning is also abstract, so models or animations are needed that can illustrate this to students. In this way, it becomes easier for students to imagine. As technology develops, interactive learning media has become one of the supports for successful learning, especially in physics material.

Based on the literature review, it is concluded that interactive learning media has an important role in improving student learning outcomes in physics subjects. Literature that reveals the importance of

interactive learning media to improve student learning outcomes in physics subjects is summarized in table 1.

Table 1. Articles related to interactive learning media to improve learning outcomes

	Researcher and Year	Title	Publication	Research result
1	Ahmad Fahrudin (2022)	The Influence of Using Interactive Learning Video Media on Physics Learning Outcomes of Students at SMAN 1 Musi Rawas	Pedagogics Journal of Educational Sciences	There is an influence of the use of learning video media on the physics learning outcomes of class XI students at SMAN1 Musi Rawas.
2	Ainun et al. (2022)	Application of Integrated Multimedia Learning Media LKS to Improve Physics Learning Outcomes for Class X Students at SMA N 1 Ambalawi	Gravity Edu Journal of Physics Learning and Teaching	the application of multimedia-based physics learning media integrated with worksheets can improve student learning outcomes
3	Sijaya, Ibrahim & Role, Yani Amad (2015)	The Role of Interactive Presentation Media on Physics Learning Outcomes for Class X Students at Darussalam Islamic High School, Pannyangkalang District. Gowa	Journal of Physics Education	<i>Student learning outcomes increased in the moderate category after interactive presentation media was implemented.</i>
4	Nasution (2023)	Effectiveness of Interactive Learning Media on Learning Outcomes in Physics Subjects (Meta-Analysis Study)	Syarif Hidayatullah State Islamic University Jakarta	the effectiveness of interactive learning devices on student learning outcomes in physics subjects has a positive impact and has a big impact on improving student learning outcomes.

Based on table 1, it can be seen that interactive learning media has an influence and improves student learning outcomes, so it can be said that interactive learning media has urgency in learning.

CONCLUSION

The interactive learning media has an important role in the physics lesson process. According to the literature review, it can be concluded that an interactive learning media can improve the learning outcomes in physics subjects.

ACKNOWLEDGMENT

Thank you to all parties who have helped the author in the process of writing this article, especially to the supervisors who have provided guidance and direction.

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