

Analysis of Biology Learning Media Needs at SMA Negeri 4 Tanjungpinang

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ABSTRACT (ARIAL NARROW, 10PT)

The urgency of analyzing the needs of learning media is very important to analyze the needs of student learning media because there is a possibility that future learning will increase. For this reason, it is important to conduct further research on school policies in meeting student learning needs during the learning process. This study aims to analyze the needs of learning media in biology subjects at SMAN 4 Tanjungpinang. The research method used was descriptive and quantitative analysis with data collection through questionnaires and interviews with biology teachers. The subject of this study was a grade 11 science student of SMAN 4 Tanjungpinang. The results showed that teachers always use learning media in every meeting and with the existence of learning media makes students motivated and not easily bored in the learning process. However, students still need a variety of learning media to support learning needs. This article emphasizes the importance of effective learning through the use of appropriate media and materials.

KEYWORDS

Analyze
Media
Biology
Motivation
Effectiveness

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1. Introduction

Quality education is education that can develop the implicit and knowledge of students. The education process that takes place in the classroom, always positions students as objects that must be filled with adaptable information and various other literacy accoutrements. One of the ideals to be achieved is to produce a literacy situation that allows students to realize the literacy process by espousing all effective and effective literacy tools and styles. In this case, learning media is an effective support that helps the teaching and learning process take place (Rasyid, et al, 2016 in Yati & Fitri, 2022). Education plays an important role in the teaching and learning process so that students become educated participants in both their religion and knowledge. Education itself is a way to help humans live their daily community lives (Agus Mustofa, 2007 in Sapriyah, 2019). Reporting from Kumparan, the findings of the Programme for International Student Assessment (PISA) check show that the problems that become education issues in Indonesia aren't only low student achievement rates, high rates of not repeating classes, and student absenteeism, but lack of school facilities and infrastructure, lack of learning support services, lack of teacher professional skills, lack of interest in literacy, lack of mindfulness, and numerous further.

The purpose of improving the quality of literacy is to elaborate a student-oriented learning system (student center) and pay attention to student needs both with advanced facilities and infrastructure, increase student activity, be creative, innovative, and more effective and productive. Fun and developing literacy grounded on information and communication technology. The development of technology help learning to use technology, so the development of learning quality must always keep up with the times, as well as components that support learning, such as media, methods, models, and others (Rusman in Yunus and Fransisca, 2020).

In addition, good learning can be seen from the use of a representative curriculum, one of which can be realized by utilizing the available facilities and learning resources to achieve a competency. The demands of the times have consequences for changing paradigms in teaching and learning into learning, teachers are no longer the only source of learning for students. In connection with this, educators or teachers in schools are expected to be able to use learning resources appropriately and develop learning media that are in accordance with student characteristics to improve the quality of education and improve learning outcomes through the development of learning media sourced from textbooks or enrichment books (Yulianto, 2010).

One of the effectiveness in learning is influenced by the learning media used. This is also supported by Dilla's statement (2023) that the use of learning media not only affects the effectiveness and efficiency of controlling learning activities in the classroom, but is also useful for facilitating the understanding of information, has complex appeal and affects all ways taken by students with interesting and innovative media models. Learning media are all forms of materials used to help teachers carry out learning activities in the form of a set of materials that are arranged systematically to facilitate students (Directorate of High School Development, 2010). In addition, learning activities can be more interesting with the help of learning media so that they can increase student motivation (Benny, 2017 in Zulyetty, 2018).

Learning media is anything that can be used to convey a communication from sender to receiver to stimulate students' considerations, feelings, attention, and interest in learning (Tafonao, 2018). Learning media contains information and knowledge that's generally used to improve learning so that it becomes effective and efficient. Media comes from the Latin word medium, which is the plural form of the word media, which literally means intermediary or presentation.

According to the National Education Association (NEA), media is a form of print and audio-visual communication and its devices. Mass media must be manipulated, seen, heard, read (Sadiman in Rani and Moro, 2019). One of the effectiveness in learning is influenced by the teaching materials used. Teaching materials are all forms of materials used to help teachers carry out learning activities in the form of a set of materials that are arranged systematically to facilitate students (Directorate of High School Development, 2010).

Learning motivation is the driving force to carry out certain learning activities that come from within a person and from outside to increase enthusiasm for learning (Monika and Adman, 2017 in Andriani and Resto, 2019). Nowadays many students lack motivation to learn. This can be seen from the attitude of students who are indifferent to learning, do not pay attention to the teacher when explaining the material, and do not complete the tasks given by the teacher (Arianti, 2018). The lack of interest and motivation of students to learn continues to interfere with the acquisition of new knowledge of students if not addressed. If the teacher does not pay attention to learning difficulties leads to more material that is not fully understood. This can result in students not being able to answer questions and ultimately have an impact on low student learning outcomes (Yati & Fitri, 2022).

According to Sadjati (2012), learning media is very unique and specific. Learning media is designed in such a way only to achieve certain goals of certain students. Systematics of how to deliver learning media is adjusted to the characteristics of subjects and the characteristics of students who use it. Learning media is one of the important factors that determine the effectiveness or failure of learning (Arsanti, 2018). Learning media or instructional materials, usually consist of knowledge, skills, and attitudes that students must learn to achieve the competency standards that have been given. More specifically, the type of learning material consists of knowledge (facts, concepts, principles, procedures), skills, and values and attitudes (Aisyah, et al, 2020).

The urgency of analyzing the needs of learning media is very important to analyze the needs of student learning media because there is a possibility that future learning will increase. According to Hutchinson and Walters (in Hendriyani et al., 2018) to find out the needs of student learning media, a needs analysis is needed. This statement is also supported by Yunus (2019) in Saputri and Fransisca (2020) that a needs analysis is carried out to determine the needs of students in obtaining information through learning media.

Based on the statement above, the importance of conducting further research on school policies in meeting student learning needs during the learning process. The formulation of the problem studied

includes: (1) What are the needs of grade 11 students of SMAN 4 Tanjungpinang?; (2) The urgency of analyzing the needs of grade 11 students of SMAN 4 Tanjungpinang in the learning process.

2. Method

This study used descriptive and quantitative analysis. The subject of this study was a grade 11 science student of SMAN 4 Tanjungpinang. The data collection technique uses questionnaires distributed using Google Form, so that students can fill out questionnaires online with a filling period starting from May 26 - 29, 2023. In addition, data collection used interviews with Biology subject teacher resource persons.

In analyzing the data, the measurement scales used are the nominal scale and Likert scale. The nominal scale is the simplest scale, sorted by type (category) or numerical function, and is a symbol to distinguish one trait from another. A nominal scale is a number that has no arithmetic meaning. The numbers used are only symbols/signs of the objects being analyzed. The measurement scale used for questions whose answers are in the form of respondent assessments, namely the Likert scale. Likert scale is a psychometric scale commonly used in questionnaires and is the most widely used scale in research in the form of surveys (Taluke et al., 2019). Data analysis with Likert scale, formula calculation using the following formula: score= (answer item×number of respondents)

3. Results and Discussion

3.1. Results of Questionnaire Distribution to Grade 11 Science Students Use of Learning Media

Indicators of the use of learning media are intended to obtain student assessments of learning media used during the learning process. In this indicator, there are seven questions, namely the use of learning media in each meeting, the learning media used, the variety of learning media, learning media that are concise, easy to understand, and can support learning needs, and learning motivation.

Table 1. Learning Media Assessment

Number	Questions	Score	Description
1	Use of learning media for each meeting	144	Totally Agree
2	The use of learning media such as power points makes me bored faster in the process of learning activities	60	Disagree
3	I need a variety of learning media to support learning needs	148	Totally Agree
4	I like the learning media with a concise presentation and easy to access	216	Totally Agree
5	Learning media can be used and understood well	164	Totally Agree
6	Supporting learning media to support my learning needs	160	Totally Agree
7	With the learning media makes me motivated in the process of learning activities	102	Agree

Based on students' assessment of the use of learning media in the learning process, it can be concluded that teachers always use learning media in every meeting. And with the existence of learning media makes students become motivated and not easily bored in the learning process. However, even though learning media that are often used by teachers in learning make students motivated, students still need a variety of learning media to support learning needs. That is, the development of learning media needs to be done to facilitate student learning.

The learning media most often used by teachers and the most preferred by students are print learning media in the form of LKPD and non-print learning media in the form of Power Point (PPT) which can be seen in Figure 1 and Figure 2 below. However, in addition to the use of these learning media, students need a variety of learning media to support learning needs which can be seen in Table 1.

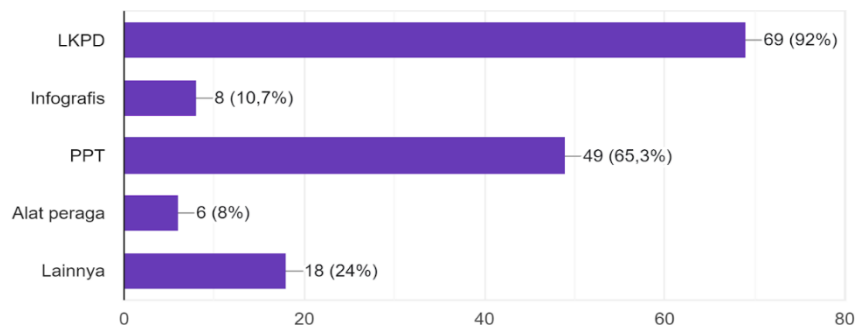


Figure 1. Learning Media that is often used by teachers

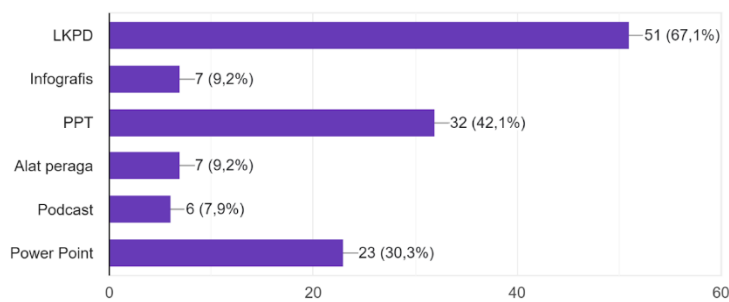


Figure 2. Learning Media that is most preferred by students in learning activities

Based on the analysis in figure 1, 92% of students stated that the learning media most often used by teachers is LKPD. Then, PPT also includes learning media that are often used with a percentage of 65.3%. Props are a medium that is rarely used. Based on the analysis in figure 2, it was found that students liked print learning media such as LKPD with a percentage of 67.1%.

3.2. Interview Results of Biology Teacher of SMAN 4 Tanjungpinang

Predicated on the results of an interview by one of the biology teachers of SMAN 4 Tanjungpinang showed that the resource persons always use learning media in every learning process. The media that have been used by the resource persons are types of kinesthetic literacy media, visual media, and audio-visual media. This type of kinesthetic literacy media will be used if the material being studied requires observation in the school environment, which latterly students will be directed to leave the classroom and observe the conditions in the school environment in conformance with the material studied. While visual-grounded literacy media, resource persons generally use maps. As well as audio-visual grounded literacy media, resource persons generally show a videotape in front of the class.

In every learning meeting, resource persons often use audio-visual (video), visual, and kinesthetic-based (teaching aids) based learning media. This is because visual and kinesthetic learning media do not require the internet so that all students can follow learning activities. In addition to the use of these learning media, students prefer audio-visual and kinesthetic-based learning media because students more easily understand the material being discussed.

In developing print-based learning media into non-print learning media, the obstacle experienced by the resource persons is that not all students can access learning media in class. This is because not all students have internet quota. In addition to the use of these learning media and the obstacles experienced by the resource persons, there are still learning media that the resource persons want to use but have not yet implemented such as the use of e-LKPD.

In addition to the obstacles endured by resource persons in developing electronic-grounded literacy media, there are several things that support the use of learning media, one of which is flexible, this is supported by the opinion of Rashid, (2021) in Yuliawati, et al. (2022), said that learning media must also be suitable to follow the development of the stoner's situation, available anywhere and anytime through mobile phones which have come daily food for every person. However, everyone can partake ideas, partake

knowledge, If used wisely. So, indeed without a schoolteacher, scholars can learn on their own anywhere and anytime. Although the use of electronic literacy media is more and more applicable to be used moment, the use of non-electronic learning media is still applicable to use.

Based on the results of research by Susanto, et al. (2013) in Panjaitan, et al. (2020), said that the use of interactive learning media based on education games can increase student motivation, interest, and learning activities so that student learning outcomes are good. However, the reality is that until now the resource persons have not used game-based learning media due to the lack of facilities and infrastructure provided by the school. Although the resource persons did not use interactive learning media based on education games, the resource persons used the school environment both outside the school and inside the school in learning activities. For example, in Plantae material, students are invited outside the classroom to observe plants in the surrounding environment.

4. Conclusion

Based on the results of the study, it can be concluded that the importance of analyzing the needs of learning media in biology education at SMAN 4 Tanjungpinang. The results showed that teachers always use learning media in every meeting and with the existence of learning media makes students motivated and not easily bored in the learning process. In accessing learning media, of course, there are several obstacles, namely not all students can access learning media in class because not all students have internet quota. However, students still need a variety of supporting learning media for learning needs. Therefore, the development of learning media needs to be done to encourage student learning.

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