

ANALYSIS OF USING KENIK ALGEBRA MEDIA IN LEARNING TO SOLVE ONE VARIABLE LINEAR EQUATIONS (PLSV)

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ABSTRACT

One of the efforts made to help the learning process is the use of learning media. With the media, the learning process can run smoothly so that maximum learning objectives are achieved. One of the learning media is media kenik algebra. Learning media Kenik Algebra is a medium used to solve problems related to the material of linear equations of one variable (PLSV). With the help of this learning media, students are expected to understand the concept of algebraic arithmetic operations so as to improve students ability to solve problems related to the material correctly. The purpose of this literature review article is to analyze the use of algebraic kenik media in learning. It is stated that the use of algebraic kenik media helps in the learning process, especially to solve problems related to linear equations of one variable.

Keywords: learning media, students ' ability, the use of algebraic kenik.

1. Introduction

Learning is a process of learning between students and educators in the form of knowledge and knowledge transfer activities and the formation of attitudes or morals and students' self-confidence. Thus it can be concluded that learning is a process that helps students to learn well and structured.

The most important thing in learning activities is the learning process. Because something is said to be a learning outcome if it meets the following requirements: (1). Learning is conscious, it means that there is motivation and desire in students to have the expected knowledge so that the learning steps until gaining the knowledge permanently are actually realized by these students. (2). Learning outcomes are obtained by the process, meaning that knowledge is not obtained spontaneously, instantaneously, but gradually. (3). Learning requires interaction, meaning that a learner will gain knowledge faster because of the help of teachers, tutors, trainers, or instructors.

The problem that is often faced in the world of education is the weakness of the learning process. In teaching activities, students are more directed at the ability to understand the material being taught. Learners learn more in theory and less application in everyday life. This causes

students to understand less about the material being taught more deeply. Teachers are expected to improve and develop the potential and creativity of students in learning so that students have knowledge that is not only theoretical but also able to practice to face the times.

In the learning process, of course, requires a method or media that can help students to improve their understanding of learning. Human absorption ability is divided into 82% vision, 11% hearing, 1% smell, 2.5% taste, and 3.5% touch (Daryanto, 2010:13). In learning, there is a two-way interaction between students and teachers. This shows that the learning process is an interactive process in which there is a process of delivering messages from the sender (teacher) to the recipient of the message (students). Whether the message conveyed is accepted or not by the recipient can be seen from the recipient's feedback. If the feedback is good then the message has been well received, otherwise, if the feedback is negative then the message still cannot be understood or even received by the recipient of the message. So we need learning media. These messages are conveyed by media using certain stages, called methods. Maximum learning will certainly achieve success in achieving predetermined learning targets or objectives. The learning process itself will run well, be maximally,

and be structured if students have the motivation in learning and a teacher who has creative thinking in the learning process. A teacher who has creativity or creative ideas in learning will certainly make learning always interesting and fun so that students focus and do not get bored. This can be done in various ways, one of which is the use of learning media.

Today there are still many teachers who only use book media in learning. Then the teacher explains the material from the book to the students. This causes students not to be actively involved in learning so learning tends to be monotonous and boring for students. According to Psychology, people who only learn without practicing it can understand and remember what has been learned in the long term. However, people who learn and then practice it can be easily digested and will always be remembered in their minds. Therefore, teachers need to innovate by using media in learning. Learning media is very influential for students in understanding and remembering the material being taught. With a good understanding of the material, students can get satisfactory grades so that learning objectives will be achieved optimally.

The use of learning media in the learning process can foster new interests and desires for students, strong motivation, and can even have a psychological influence on students. The use of learning media at the beginning of teaching can help the activeness of students and the delivery of messages and lesson content can be well received by students. So that the learning objectives that have been determined will be achieved optimally.

2. Literature Review

Denick Tyara ATA conducted research entitled "ANALYSIS OF THE USE OF ALGEBRA PROS AND STUDENTS' ABILITY TO COUNT OPERATION PROBLEMS ON SQUARE FORMS". The research was conducted on seventh-grade students of SMP Negeri 1 Maju. The method used in this study is a quantitative research method with an experimental study approach. The data collection technique uses a questionnaire and a test, while the data analysis technique uses a correlation test. The ability of students to solve arithmetic operations in algebraic forms is indicated by the average value of the experimental class 63,375 with a medium category. Based on the results of the questionnaire calculation in the experimental class, the use of the algebra teaching aid questionnaire got an average

score of 81.3125 in the medium category. Based on the results of data analysis, there is a significant relationship between the use of algebraic teaching aids and students' ability to solve algebraic arithmetic operations. This can be seen from the significant value in the correlation table, which is 0.024. Because $0.05 > 0.024$ then there is a significant relationship between the two variables.

Based on this description, it can be concluded that the use of algebraic learning media can improve students' ability to solve problems related to algebraic arithmetic operations on one variable linear equation system (SPLSV) material.

3. Study Method

To find out the analysis of the use of algebraic media in learning, a literature study or literature study was used. The source of the study taken is data from e-books, articles, and other sources relevant to the analysis of the use of algebraic learning media in learning.

Based on the Encyclopedia of Educational Research explains that there are several benefits of learning media, including (1) Laying concrete foundations for thinking, thereby reducing verbalism. (2) enlarge the attention of students. (3). Provide real experiences that can grow and improve students' thinking business activities. (4). Cultivate organized thinking, especially through vivid images. (5). Help foster understanding that can help develop language skills.

The function of learning media is to help facilitate students in learning, provide real experiences (abstract becomes concrete), and grow and increase interest and motivation in learning. From the 1950s to the 1970s there were no less than 20 summaries of research on the use of media in learning mathematics. Among these summaries, the most complete is Higgins and Suydam's 1976 summary (Lithanta, 2009), which concludes that: (1) in general, the research concludes that the use of media in mathematics learning is successful and effective in encouraging student achievement. (2) about 60% versus 10% show definite success in the learning process using media. (3) found little evidence that manipulation of instructional media only worked at a lower level.

4. Discussion

The word "media" comes from the Latin word, which is the plural form of the word "medium". Literally, the word media has the meaning of an introduction or intermediary.

According to Hainich (1993) media is a means of the communication channel. While learning is a process of interaction between students and educators in the form of knowledge transfer in the learning environment. According to Hmazah B. Uno and Nina Lamatenggo in the book *Communication and Information Technology Learning*, learning media are all forms of communication tools that can be used to convey information from sources to students in a planned manner, to create a conducive learning environment where the recipient can carry out the learning process in a planned manner. efficient and effective.

Media related to learning is defined as a means of communication for the learning process as a carrier of information in the form of material or learning materials from educators to students to make students interested in participating in learning. No matter how sophisticated the learning media that is created and applied in learning, its role will not succeed if its use is not following the content and objectives of the learning that has been set. Media is anything that can be used to transmit messages from sender to receiver so that it can stimulate the thoughts, feelings, concerns, and interests and concerns of students in such a way that the learning process occurs (Sadirman, 1948: 6). According to Fleming (1987:234) states that the media serves to regulate an effective relationship between two parties, namely students and the content of the lesson. Latuheru (1988:14), states that learning media are materials, tools, or techniques used in teaching and learning activities with the intention that the process of educational communication interaction between teachers and students can take place effectively and efficiently. So, it can be concluded that learning media is a tool used to assist the learning process to improve students' learning abilities.

According to Sadirman (2002:16) learning media has the following uses:

1. Clarify the presentation of messages so that they are not too verbalize (in the form of written or spoken words)
2. Overcome the limitations of space, time, and sensory power
3. By using educational media appropriate curriculum
4. and educational materials are determined the same for each student, the teacher will experience many difficulties if all of this must be overcome alone. Moreover, the environmental backgrounds of teachers

and students are also different. Therefore, learning media are used to assist teachers in delivering material to students in learning.

According to Wina Sanjaya, there are several functions of the use of learning media, including:

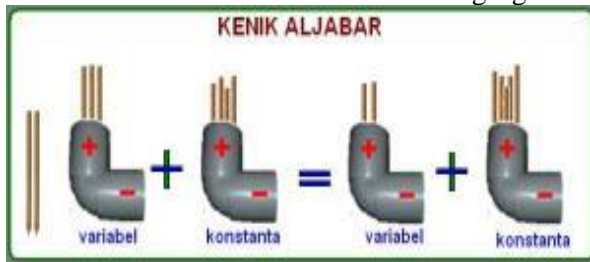
1. Communicative function, learning media is used to facilitate communication between the messenger and the recipient of the message. So that there is no difficulty in conveying verbal language and misperceptions in conveying messages.
2. The function of motivation, learning media can motivate students in learning. By developing the learning media, does not only contain artistic elements but also makes it easier for students to learn the subject matter so that it can increase students' passion for learning.
3. The function of meaningfulness, the use of learning media can be more meaningful, namely learning not only increases understanding of information but can increase students' understanding of analyzing and creating.
4. The function of equalizing perception can equalize the perception of each student so that they have the same view of the information conveyed.
5. The function of individuality, with different student backgrounds, be it experience, learning styles, student abilities, or learning media can serve the needs of each individual who has different interests and learning styles.

From these opinions, it can be concluded that the learning media has a great influence on increasing the ability of students in the learning process. Therefore, every teacher must be able to determine the right learning media for their students

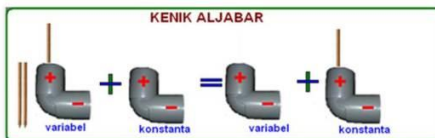
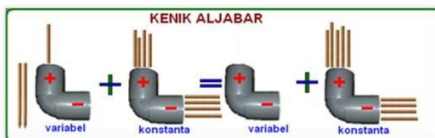
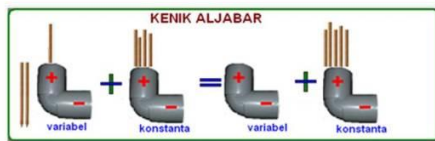
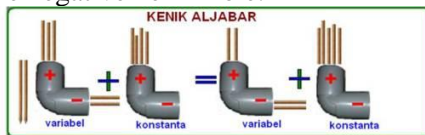
. Ability is something that has been in us since we were born. Ability is also known as potential. According to Mohammad Zain, ability is the potential that exists in the form of our ability, ability, and strength to try with ourselves. Meanwhile, Anggiat M. Sinaga and Sri Hadiati said that the ability is more on the effectiveness of the person in doing all kinds of work. This means that ability is the basis of a person doing a job effectively and of course efficiently.

Kenik algebra is a medium that is used to help the process of learning mathematics on the problem of one variable linear equation (PLSV) in learning. The purpose of this algebraic technique is to apply the PLSV solution from the abstract to the real. The use of this algebraic learning media is also simple. For example, determine the solution of $3x+4=2x+5$.

The solution can be seen in the following figure:



We have to separate the variables and constants on different sides, by making the left side only x and the right side only constant, by inserting a skewer in the negative kenik hole.



So that the solution obtained from $3x+4=2x+5$ is $x=1$

The advantage of the algebraic learning media is that it makes it easier for students to solve algebraic problems and solve PLSV problems that are abstract to real. Meanwhile, the weakness of this media is that it can only be used to solve simple algebraic problems.

5. Conclusion

Based on the results of the study above, it can be concluded that learning media is a method, tool, or technique used in the learning process as a carrier of information from the sender (teacher) to

the recipient (student) to achieve maximum learning objectives. The function of the media in learning is to explain or visualize material that is difficult to understand if the explanation only uses verbal speech. Kenik Algebra is a mathematics learning media used by junior high school students (SMP) to find out the solution of one variable linear equation (PLSV). In this article, it can be said that the algebra learning media is very helpful for students in solving one-variable linear equation (PLSV) problems.

6. Suggestion

It is hoped that educators will pay more attention to the use of learning media that is applied so that the subject matter presented is easy to understand by students. Because learning media is very influential on student learning outcomes.

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