

Original Research Paper

Effect of the Use of Audio Visual Media on the Learning Outcomes of Class IV Students at Negeri 091299 Sipoldas

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Abstract: This study aims to determine the effect of using audio-visual media on the learning outcomes of fourth grade students at SD Negeri 091299 Sipoldas. In this study, the researcher used quantitative research with a pre-experimental design in the form of one group pre-test post-test design. The population in this study were all fourth grade students of SD Negeri 091299 Sipoldas. The sample in this study amounted to 27 students. The sampling technique in this study is a saturated sampling technique. Data collection techniques in this study are documentation and tests (pre-test and post-test). The data analysis technique used is descriptive statistical test, normality and homogeneity. This data was analyzed with the help of Windows SPSS 21. The hypothesis testing of this study used the calculation of the independent sample T-Test test. The results showed that the tcount value was 8.930 *ttable* 2.052, so Ha was accepted and Ho was rejected. It can be concluded that the hypothesis of this research is accepted, namely that there is an effect of using audio-visual media on student learning outcomes in sub-theme 1 types of work in class IV SD Negeri 091299 Sipoldas.

Keywords: Audio Visual, Learning Media, Learning Outcomes.



1. Introduction

Development in the present and in the future is strongly influenced by the education sector. Education is an important foundation of a country. Through education, it is hoped that all have talents and abilities that can be developed to the maximum so that a person can be independent in the process of developing his personality. In the Republic of Indonesia Law No. 20 of 2003 concerning the National Education System Chapter 1 article 1 "Education is a conscious and planned effort to create a learning atmosphere and learning process so that students actively develop potential within themselves, society, nation and state. Education is needed by humans as a means for self-development, meaning that education is used as a guide that must be owned by every human being because with this education humans can determine their future. Education is also able to create quality human resources who have good knowledge, attitudes and skills. Education is a process of developing basic human potential related to moral, intellectual and physical. Education is based on the interaction between educators and students in an effort to help student's master educational goals. The quality of learning can be influenced by factors including teachers, students, subjects, teaching methods, learning media and available infrastructure.

One of the big problems in the education sector in Indonesia is the low quality of education which is reflected in the low student learning outcomes. Student learning outcomes are influenced by two factors, namely internal factors and external factors [1]. According to A. Susanto [2], the factors that affect learning achievement can be classified into 2, namely: Internal factors and external factors. Internal factors are factors that come from within the individual and can affect individual learning outcomes including the first physiological factors including: health factors and body defects that can affect the enthusiasm and intensity of students in following lessons [3]. The two psychological factors, including: the intelligence of students, motivation, attitudes, interests, and talents of students that can affect the learning process. External factors are factors that come from outside the individual, including: first, family factors include: the way parents educate, relationships between family members, home atmosphere, family economic conditions, and so on. School factors include: teacher teaching methods, curriculum, discipline, teacher-student relations, students and students, building conditions, teaching tools and so on. The two community factors include student activities around the student's residence in the community.

When researchers conducted observations in May 2022 at SD Negeri 091299 Sipoldas there were still many teachers who only used the lecture method in teaching and learning activities, this caused learning to tend to be monotonous and boring so that students were less motivated to learn. This is what causes student learning outcomes at SD Negeri 091299 Sipoldas still much below the KKM (Maximum Completeness Criteria) that has been determined. The KKM at SD 091299 Sipoldas is 62, and information is obtained that the total number of students in class IV is 27 people where students who complete are 8 people while students who have not completed 19 people. The cause of the low student learning outcomes is because there are problems that arise in the learning process that look like the teacher only explains the material by lecturing so that many students talk to their friends when the teacher explains the material in front of the class, the use of learning media has not been maximized which makes learning less interesting so students get bored. In order to overcome the above problems, the process of learning activities will work well if the teacher can determine the appropriate and appropriate learning media to be applied to learning activities. Quality education is formed through a good learning process, so learning must run according to the level of cognitive, affective and psychomotor development of students.

2. Literature Review

Along with current technological advances, learning is increasingly developing, so it requires educators to be able to make new innovations in the learning process, one of which is media. Media is not just a teaching aid, but as an integral part of learning, which have continuity with each other. The position of the media in the learning process is very important because the media can support the success of learning. Competence in improving the quality of education is a shared responsibility, both principals, teachers, students, parents and the community [4]. Teachers in carrying out their duties as educators must have competency standards that include pedagogic, personality, social and professional competencies. Teacher pedagogic competence is the teacher's ability to manage student learning, where the teacher must have an understanding of the educational foundation, understanding of students, the ability to develop curriculum/syllabus, the ability to design learning, the ability to evaluate student learning outcomes and the ability to use technology and learning media. Teacher

competence has a very positive effect on improving student learning outcomes. According to Wati [5] media as a means or facilities that can be used as a transmitter of information to achieve learning objectives.

The development of information technology requires every teacher to be able to follow the development of existing technology in accordance with his era [6]. Various developments in information technology allow every teacher to be able to use a variety of media choices that are considered suitable so that the choice of the right learning media has an impact on student learning outcomes, one of which is audio-visual media. In a transfer of knowledge, many things are needed, including the teacher and the learning media used. The teacher is someone who is expected to be able to deliver knowledge according to the needs of students and teachers must be able to create a conducive, fun and interesting classroom environment for learning and create creative learning media. But the fact is that there are still many teachers who only deliver learning material in general and do not see the suitability of the material with the needs of students, the fact is that teachers rarely pay attention to a conducive, fun and interesting classroom environment to use for learning, even teachers only deliver material without using tools aids and learning media then give assignments so that there are no fun things the teacher does [1].

A teacher must also have the ability to design learning media, where learning media can facilitate the learning process so that learning objectives can be achieved. Learning media is one of the learning resources used to assist in the delivery of material that can be loaded with messages to be conveyed to students, both in the form of tools, people and teaching materials. According to Suardi [7] learning is a process of interaction of students with educators and learning resources in the learning environment. For that the existence of learning media can motivate students to be enthusiastic about learning with the aim of improving student learning outcomes in class [8]. According to Rusman [9] that learning outcomes are abilities possessed by students after they receive learning experiences, it can also be interpreted that learning outcomes are a number of experiences obtained by students which include cognitive (knowledge), affective (attitudes) and psychomotor (skills) [10]. Learning outcomes as a measurement of the assessment of learning activities are expressed by symbols of letters, numbers and sentences that tell the results that have been achieved by students. Therefore, students should be able to obtain learning outcomes that are in accordance with the standards set or according to the KKM, but in reality not all students can achieve maximum learning outcomes. This is due to one of the reasons for the lack of use of learning media when delivering learning materials. To find out whether student learning outcomes are in accordance with learning objectives, it is necessary to use audio-visual media. Audio-visual media is media that has sound and image elements. This type of media has a better ability, because it includes auditive (hearing) and visual (seeing) media types. The use of visual auditive communication is widely used because of the form of visual auditive media (seeing to hear) which can stimulate thoughts, feelings and visions as well as students' willingness to learn [11]. Here the author uses audio-visual media that combines visual media and audio media such as computers with power point slide shows and video applications projected through an LCD (Liquid Crystal Display) projector, with the aim of creating new innovations to carry out interesting thematic learning in class, so that students and teachers can be equally active in teaching and learning activities. Thematic learning is subjects that are related to one another, where the material presented cannot be told or explained just like that but must be shown clearly so that the material is easily understood and remembered by students. With the use of audio-visual media, it is expected that students are motivated in learning so that they can improve student learning outcomes in the future [12] [13].

3. Methodology

This type of research is experimental research using a quantitative approach. Quantitative approach is research data in the form of numbers analysis using statistics. Experimental research is research that is used to find the effect of treatment (treatment). The design used in this study was a pre-experimental form of one group pretest-posttest design. The location of the research was at SD Negeri 091299 Sipoldas, Panei sub-district, Simalungun Regency. The time of this research was carried out in the odd semester of the 2022/2023 academic year. The samples in this study were all fourth graders of SDN 091299 Sipoldas with a total of 27 students consisting of 13 male students and 14 female students whose ages ranged from 9-12 years. The research instrument is a tool that can assist researchers in collecting data, where the instrument used is a written test. The test will be given in the form of pre-test and post-test questions. Pretest questions are given at the beginning of learning to

determine student knowledge before being given learning materials and post test questions are carried out at the end of learning to determine student knowledge during the learning process. To test the test assessment instrument. Construct validity testing can be done by consulting the assessment instrument with an expert. To test the validity of the items of the instrument further, then after consulting with experts, then further tested, and analyzed by item analysis. The technique used in analyzing quantitative research data uses statistics which consist of 2 kinds of statistics. [14] One of them is descriptive statistical analysis which states that descriptive statistics are statistics used to analyze data by describing or describing the data that has been collected as it is without intending to make conclusions that apply to the general public or generalizations. Descriptive Statistical Analysis is a data analysis technique used to analyze data by describing or describing the collected data without making conclusions that apply in general, based on this analysis is used to describe learning outcomes in thematic learning of sub-theme 1 types of work when given treatment learning Media. In descriptive statistical analysis will be described starting from the number of samples, mean, median, minimum value, maximum value and the total number (sum) [8][15].

3.1. Normality Test

The normality test is used to determine whether the score of each variable is normally distributed or not. The normality test in this study used the One Sample Kolmogorov-Smirnov Test. The criteria for normality testing are that the data is declared to be normally distributed if the significant level value is more than 0.05 ($P > 5\%$), the Normality Test is calculated with the help of Windows SPSS 21. Homogeneity test is a test to find out whether several population variants are the same or not. Using the homogeneity test in the form of the similarity test of two variances, it is used to test whether the two data are homogeneous by comparing the two variations. Homogeneity test is calculated with the help of Windows SPSS 21, with the following criteria [15]:

If $F_{count} < F_{table}$, then the data is homogeneous

If $F_{count} > F_{table}$, it means that the data is not homogeneous

3.2. Hypothesis Testing

To test the hypothesis used t test. The t-test is used to test the truth or falsity of the null hypothesis which states that between two mean samples taken from the same population there is no significant difference. Conducted a t-test with the help of Windows SPSS 21. (t-test) the results of this calculation were then compared with the t-table using an error rate of 0.05. With the following criteria:

H_a is accepted if the value of $t_{count} > t_{table}$ or the value of sig 0.05

H_0 is rejected if $t_{count} < t_{table}$ or sig value > 0.05

If there is acceptance of H_a , then there is an effect of using audio-visual media on student learning outcomes, whereas if acceptance of H_0 is there, there is no effect of using audio-visual media on student learning outcomes.

4. Finding and Discussion

The results of the research instrument trial were conducted on 20 fourth grade students of SD Negeri 096778 Sibolangit. The instruments in this study include test questions to measure student learning outcomes that have been adjusted to Bloom's taxonomy indicators with cognition levels C1-C6. Before the test instrument is used in the school where the research is conducted, first, analyze the results of the instrument trial. The data on the test results of the test instruments were obtained by conducting trials on students outside the population. The instrument being tested is in the form of questions consisting of 25 questions.

4.1. Validity Test

Validity test is used in this study to measure the validity of a test item. The validity test was carried out in class IV SD Negeri 096778 Sibolangit which consisted of 20 students with 25 questions. The validity of the test instrument in this study uses logical validity (content and constructs) and empirical validity (quantitative calculations). The logical validity test is carried out by one validator. After logical validation was carried out on the test instrument and tested on students outside the sample class, empirical validity was calculated. An instrument is said to be valid if $r_{count} > r_{table}$. While r_{table} in this study is according to the number of students 20 with the r table code of 0.444. So the

instrument is said to be valid if $r_{count} > 0.444$ then it can be concluded that the results of the instrument questions no. 1 to question no. 25 are said to be valid because in accordance with the provisions of $r_{count} > 0.443$, then the 25 questions were used at the time of the study.

4.2. Reliability Test

This test is used to determine the reliability of the research instrument. The reliability test was carried out in the fourth grade of SD Negeri 096778 Sibolangit which consisted of 20 students with 25 questions. To test the reliability in this study, the researcher used the cronbach's alpha method with the criteria of the research instrument being said to be reliable if the cronbach's alpha value obtained was 0.63.

4.3. Normality Test

The normality test was used to determine whether the students' pretest posttest data obtained were normally distributed or not. This test was conducted on 27 students in grade IV SD Negeri 091299 Sipoldas. In this study, researchers used the Kolmogrov-Sminornov test with the help of Windows SPSS 21. The data is normally distributed, for the posttest has a significance value of 0.18 or more $>$ than 0.05, then the posttest can be said to be normally distributed. From the results of the normality test, it can be concluded that the pretest posttest data obtained were normally distributed.

4.6. Homogeneity Test

Homogeneity test serves to test the similarity between groups. This test was conducted on 27 students in grade IV SD Negeri 091299 Sipoldas. In this study, the homogeneity test was carried out with the help of SPSS 21 windows. The criteria used were:

The value of the significance level if the sig is more than 0.05 then the data is homogeneous, and if the sig is more than 0.05 then the data is not homogeneous.

4.7. Hypothesis Test Results

After all prerequisite tests are carried out, the next step is to test the hypothesis. Hypothesis testing in this study was carried out using t-test analysis with analysis using SPSS 21. This hypothesis testing was conducted to determine the effect of using audio-visual media on student learning outcomes in sub-theme 1 types of work in class IV SD Negeri 091299 Sipoldas. The basis for decision making for the t-test is based on the values of t_{count} and t_{table} , namely: If the value of $t_{count} > t_{table}$, then the independent variable affects the dependent variable, whereas if the value of $t_{count} < t_{table}$, the independent variable has no effect on the dependent variable. Based on the results of the significance, namely: If the significance value < 0.05 then the independent variable has a significant effect on the dependent variable, while if the significance value is > 0.05 then the independent variable has a significant effect on the dependent variable. [15]

4.8. Discussion

This study was conducted to determine the effect of using audio-visual media on student learning outcomes in sub-theme 1 types of work for class IV SD Negeri 091299 Sipoldas. Audio-visual media are media/tools that are audible, meaning they can be heard, and tools that are visible, meaning they can be seen. In another sense, audiovisual media is a tool that can produce sound and appearance in one unit. The audiovisual media include the following: sound films, television (TV), video cassettes or VCDs. Audio-visual media with LCD are devices used as learning media, consisting of laptops, projectors and screens, used as learning media in the classroom and the use of audio-visual media is intended to make it easier for students to interact and achieve learning outcomes.[9] It can be concluded that audio-visual media can greatly assist educators in the process of teaching and learning activities to improve learning outcomes to the maximum. The way students receive the material presented is different, some are quick to use audio media (hearing) and some are quick to use visual media (sight), therefore the author chooses to use audio-visual media. It is expected that students will catch the lessons that are delivered faster and the learning process will be fun. Based on research data, the researcher plays a direct role as a teacher in class IV SD Negeri 091299 Sipoldas on the subject of types of work. [10] Class IV students, totaling 27 people, were given treatment in the form of teaching using audio-visual media. Prior to the treatment, the students were given a pretest to determine the students' initial ability in the given material. In doing this pre-test, students work on 25 questions according to their limited ability. The achievements obtained in the form of the average value of the

pre-test for class IV is 61.33. After the pre-test ability is obtained, the next step is to do learning using Audio Visual Media in class IV. Learning is carried out with 6 face-to-face meetings. After the learning is complete, the post-test is given again to determine the students' abilities at the end after the use of audio-visual media is enforced. The post-test was given 25 items, and the post-test result was 76.30. Based on the description of the test and discussion of the data that has been explained, it can be seen that the application of Audio Visual Media on the types of work for class IV SD Negeri 091299 Sipoldas is as follows:

1. The application of learning using audio-visual media on learning outcomes in the type of work in class IV SD Negeri 091299 Sipoldas has a positive effect because it can improve learning outcomes as evidenced by an average increase of 14.97 seen from the results of the pre-test and post-test that have been given.
2. Based on the results of the SPSS 21 windows calculation that has been carried out, it can be seen that there is a significant influence on the learning outcomes of fourth grade students of SD Negeri 091299 Sipoldas. This can be seen in the results of the pre-test and post-test of students after being treated with a value of $t_{count} = 8.930 > t_{table} = 2.060$ which means that the hypothesis (H_a) of this study is accepted, namely that there is an effect of using audio-visual media on student learning outcomes in sub-theme 1 type- type of work in grade IV SD Negeri 091299 Sipoldas.

From some of the data that researchers have collected, it can be concluded that there is a significant effect on student learning outcomes after being treated with the use of audio-visual media in learning the types of work in class IV SD Negeri 091299 Sipoldas, this is evident in the pre-test results of students with the lowest scores. 44 and the highest score is 88 with an average of 61.33 so that students who achieve scores above the KKM are 11 people and have not reached the KKM there are 16 people. While the results of the post-test students with the lowest score of 60 and the highest score of 100 with an average of 76.30 so that students who achieved scores above the KKM were 19 and those who had not reached the KKM were 6 people [5]. Based on the results of research that has been done, it is found that the use of audio-visual media can improve student learning outcomes. According to Susanto [2] learning outcomes are changes that occur in students, both concerning cognitive aspects or knowledge, affective or attitudes and psychomotor or skills as a result of learning activities. According to Wati [5], audiovisual media is one of a variety of media that describes sound and image elements in an integrated manner when conveying information or messages. From the values described above, the application of learning using audio-visual media on the type of work in class IV SD Negeri 091299 Sipoldas can improve student learning outcomes as evidenced by an average increase of 14.97 seen from the results of the pre-test and post-test.

5. Conclusion

The application of learning using audio-visual media on learning outcomes in the type of work in class IV SD Negeri 091299 Sipoldas has a positive effect because it can improve learning outcomes as evidenced by an average increase of 15.27 seen from the results of the Pretest and Posttest. Based on the results of the SPSS 21 calculation that has been carried out, it can be seen that there is a significant influence on the learning outcomes of fourth grade students at SD Negeri 091299 Sipoldas. This can be seen in the results of the pretest and posttest of students after being treated with a value of $t_{count} = 8.930 > t_{table} = 2.060$, which means that the hypothesis (H_a) of this study is accepted, namely that there is an effect of using Audio Visual Media on student learning outcomes on the material types of work in class IV SD Negeri 091299 Sipoldas.

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