The Effect of Audio Visual Media and Learning Style On Students’ Learning Achievement in Class IV Thematic Learning at Fourth Islamic Elementary School Nganjuk

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Abstract

This study aims to determine (1) the effect of the application of audio-visual media on student achievement in thematic learning. (2) The influence of learning styles on student achievement in thematic learning. (3) The effect of the application of audio-visual media and learning styles on student achievement in thematic learning. This research is an experimental research using the initial test (pre-test) and the final test (post-test). The research was conducted at MIN 4 Nganjuk. The population of this study were all students of MIN 4 Nganjuk amounting to 616 students. The sample of this study was 63 students who were taken by using cluster random sampling technique. The data analysis technique used two-way anova. The results showed (1) There was an effect of the application of audio media on the learning achievement of students in thematic learning. (2) There is an influence of learning style on student achievement in thematic learning. (3) There is an effect of the application of audio media and learning styles on student achievement in thematic learning.

Keywords: Audio Visual media, Learning Style, Learning Achievement

Abstrak


Kata Kunci: Media Audio Visual, Gaya Belajar, Prestasi Belajar
Introduction

Education is a comprehensive process, namely not only the teacher conveys subject matter, but the teacher must also guide, direct, and give instructions to students so that students can behave according to existing norms. According to Law no. 14 of 2005, it is explained that "teachers are professional educators with the main task of educating, teaching, guiding, directing, training, assessing, evaluating students in early childhood education, formal education pathways, basic education, and secondary education". So in learning activities the teacher's role is very large, therefore a teacher must be able to create comfortable and attractive learning conditions for students.

Learning is a change in behavior due to experience or information input. Learning is a process of interaction between students, teachers, and also learning resources. Teachers are demanded to be able to create a learning environment that is comfortable, safe, and as attractive as possible so that students are motivated, not bored while learning. Advances in technology and science that are increasingly rapidly also affect education, especially the learning process. Teachers must be able to keep up with technological and scientific developments, namely teachers must be able to utilize technology in their learning activities. Teachers can take advantage of technological developments to be used as learning media. So that the teacher does not only lecture, but uses media that can provide direct experience to students.

Media in learning activities has a very important role. The media has the main function as a source of learning because the media has the ability to record, store, preserve, describe, and convey an event or object that students have never seen or objects that are impossible to bring into the classroom. With the use of media the teacher can show objects concretely to students.

With the use of media, it is hoped that the message or material conveyed by the teacher will be well received by students. Therefore the teacher must be able to choose the appropriate and appropriate media. One of the media that can be used today is audio-visual media. Audio-visual media that displays images and sounds can certainly attract the attention of students. Thus it is expected to attract students' interest in learning.

In using learning media, teachers must also pay attention to several things, including the modality or learning style of students. DePorter describes 3 modalities of one's learning namely visual, auditory, and kinesthetic modalities known as VAK modalities.
Meanwhile, according to A. Jauhar Fuad, a person will be able to study well if he understands his character in learning. Therefore the teacher must understand the learning styles of students so that they can determine the strategy, the media to be used in teaching and learning activities. Based on observations made by researchers at MIN 4 Nganjuk, many teachers have used audio-visual media, especially during the current pandemic where learning activities are carried out online. Teachers are required to convey material to students clearly.

From the description above, it is increasingly clear that the use of appropriate learning media and an introduction to student learning styles during learning activities will greatly help the effectiveness of the learning process, so the authors are interested in conducting research with the title "The Influence of Application of Audio Visual Media and Learning Styles on Learning Achievement of Students in Class IV Thematic Learning at MIN 4 Nganjuk".

**Audio Visual Media**

The word media comes from the word medius which means middle, introduction or intermediary. Meanwhile, according to Ramli, media is anything that can be used to channel messages from sender to receiver, so that it can stimulate students’ thoughts, concerns, and interests so that the learning process can run optimally. There are quite a lot of types and models of media that can be used for learning, ranging from the simple to the technological. In addition, teachers can also design their own media that will be used.

At this time the media that is often and commonly used by teachers is audio-visual media, namely media that involves hearing and sight in its application. Audio visual media is a set of media that contains learning messages by displaying pictures and sounds at the same time, because it involves the senses of hearing and sight, this audio-visual media has a better ability to transfer learning material.

Munadi emphasized that audio-visual media has several types. Among them are 1) motion pictures with sound, this media has its own charm for students because this media combines pictures and sound in a story; 2) television, this media is an electronic equipment that is easy to find. But the difficulty experienced is the adjustment of the television schedule with the study schedule; and 3) video, this media is almost the same as motion film media with sound. Namely media that combines images and sound.

Learning media can be used by teachers to reduce student boredom during learning activities. With the use of learning media it is hoped that students will be more enthusiastic about participating in learning. In learning activities, audio-visual media has a function to stimulate students’ brains, overcome the limitations of students’

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6 Muhammad Ramli, Media dan Teknologi Pembelajaran (Banjarmasin: Antasari Press, 2012), h. 1.

7 Ramli, 85.
experience, arouse students’ desires, inte- rests and motivations, and provide both concrete and abstract experiences.8

In addition to having a function that strongly supports learning, audio-visual media also has drawbacks/weaknesses, including in making media it certainly requires production costs, the resulting images are not necessarily good, the use of color, animation requires caution and the ability to utilize limited technology makes teachers difficulties in making audio visual media.9 With the weakness of this audio-visual media, the teacher must be able to design audio-based media that can be used to convey subject matter.

**Learning Style**

Learning style is the way students respond during the learning process. Learning style can be interpreted as the way students feel, interact, and respond to information in the learning environment.10 Of the several learning styles, the simplest is the visual, auditory, and kinesthetic learning style known as VAK, because it quickly gets an overview of a person’s learning style.

Children with a visual learning style will remember what they see rather than what they hear.11 So he tends to choose to sit in front so he can see clearly. Because children with a visual learning style, they will learn quickly by using displays that can be seen directly, because they learn to rely on their sight. In this case the learning method used by the teacher should be more or focus on the application of media that is able to display objects related to the subject matter.

Students who are of the auditory type rely on their learning success through their ears/hearing. Children with an auditory learning style will learn faster by listening to what the teacher says.12 With children who are of the auditory type, the teacher can invite children to participate in discussions, ask children to read the subject matter aloud.

Whereas a child with a kinesthetic learning style, he will learn by moving, touching, and doing. Kinesthetic children tend not to be able to sit still for long, because they learn through movement and touch.13 In learning, if you encounter kinesthetic children, don’t force children to sit studying for hours, because they will be unable to concentrate, but invite children to learn by exploring the environment, for example, inviting children to study outside by using objects in the school environment.

Learning styles can affect student learning achievement. If the learning process uses the right strategy that suits the learning style of students, then the

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10 Pangesti Wiedarti, *Seri Manual GLS Pentingnya Memahami Gaya Belajar* (Jakarta: el Bidayah: Journal of Islamic Elementary Education Volume 5, Nomor 2, September 2023)

13 DePorter dan Hernacki, 118.
child will develop better. By understanding the learning styles of students, the teacher has made a major contribution to the success of student learning because children can easily grasp the subject matter.

**Student Learning Achievement**

According to KBBI, achievement is defined as the result that has been achieved from what has been done.\(^\text{14}\) While learning means trying to gain intelligence or knowledge to change behavior/response caused by experience.\(^\text{15}\) So learning achievement is a student’s learning outcomes both in the form of knowledge, attitudes, and skills that are expressed by grades. Student learning achievement can be shown by test scores or scores given by the teacher, while the test scores are obtained by conducting previous evaluations and finally documented in a book called a report card.

Learning achievement of students can be influenced by several factors, namely the *first*, factors from within the students themselves, such as health factors, child psychology, abilities, interests, motivations and talents of students. *The second* is factors from outside the learner, such as environmental factors, family, school, and motivation from outside himself. Second, the factors that affect student learning achievement are interrelated, because students to get achievements need support both from within themselves and from outside themselves.

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\(^\text{14}\) DEPDIKNAS, *Kamus Besar Bahasa Indonesia* (Jakarta: Balai Pustaka, 2016), h. 700.

\(^\text{15}\) DEPDIKNAS, 13.
normality test used the Kolmogorov-Smirnov One-sample. Homogeneity test is used to find out whether the data is homogeneous or heterogeneous. If $\text{sing} > 0.05$, then the data is said to be homogeneous.

In the process of data analysis and hypothesis testing in this study using a two-way ANOVA with the help of SPSS 24 computation. This ANOVA is used to determine whether there is an average (means) of the dependent variable in certain groups. This ANOVA analysis is used to measure and analyze the magnitude of the influence of the application of audio-visual media and learning styles on student achievement.

**Results and Discussion**

**Result**

In order to test the hypothesis to determine the effect of the application of audio-visual media ($X_1$) and learning styles ($X_2$) on student achievement ($Y$), an inferential statistical test was carried out, but previously an analysis prerequisite test had to be carried out, namely the normality test and the homogeneity. In this study, the normality test used was the Kolmogorov Smirnov normality test with a significance level of $\alpha = 0.05$, where the calculations used SPSS 24. Regarding normality, if $\text{sing} > 0.05$ then it is normal and if $\text{sing} < 0.05$ it can be said abnormal. Calculation results obtained as follows:

### Table 1 Data Normality Test

<table>
<thead>
<tr>
<th>Kolmogorov-Smirnov</th>
<th>Statistic</th>
<th>0.197</th>
</tr>
</thead>
<tbody>
<tr>
<td>Df</td>
<td>63</td>
<td></td>
</tr>
<tr>
<td>Sig</td>
<td>0.162</td>
<td></td>
</tr>
<tr>
<td>Shapiro-Wilk</td>
<td>Statistic</td>
<td>0.929</td>
</tr>
<tr>
<td>Df</td>
<td>63</td>
<td></td>
</tr>
<tr>
<td>Sig</td>
<td>0.076</td>
<td></td>
</tr>
</tbody>
</table>

Based on table 1 it can be seen that the significance value is 0.162, so it is greater than 0.05 ($0.162 > 0.05$), it can be concluded that the data group is normally distributed. After knowing the level of normality of the data, then the homogeneity test is carried out. This homogeneity test is used to determine the level of similarity of variance between the two groups, namely the experimental group and the control group. To accept or reject the hypothesis by comparing the value of $\text{sing}$ on Levene’s statistic with 0.05 ($\text{sing} > 0.05$). The homogeneity test results can be seen in the following table

### Table 2 Homogeneity Test Results

<table>
<thead>
<tr>
<th>Levene’s Test of Equality of Error Variances$^a$</th>
</tr>
</thead>
<tbody>
<tr>
<td>Dependent Variable: student achievement results</td>
</tr>
<tr>
<td>$F$</td>
</tr>
<tr>
<td>1.578</td>
</tr>
</tbody>
</table>

Tests the null hypothesis that the error variance of the dependent variable is equal across groups.

$^a$ Design: Intercept + media + learning styles + media$^*$ learning styles

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The results of the homogeneity test of the research variables in the table above show that the significance value is 0.204, which means greater than 0.05 (0.204 > 0.05), so it can be concluded that the data in this study has a homogeneous variant so it is feasible to continue the analysis.

After the normality test and homogeneity test were carried out, then the hypothesis was tested using a two-way ANOVA. In testing the hypothesis in this study, there were 3 hypotheses tested, namely first, there was an effect of the application of audio-visual media on student achievement in thematic learning. Second, there is the influence of learning styles on student achievement in thematic learning. Third, there is the influence of the application of audio-visual media and learning styles on student achievement in thematic learning.

The criteria for testing the hypothesis are if the significance value is < 5% (0.05) then Ho is rejected, if the calculated F value > F table value of significance level is 5% then Ho is rejected. If the calculated F value < F table value of significance level is 5% then Ho is accepted. The following can be seen the results of the ANOVA analysis in the following table:

### Table 3 Results of Two Way Anova Analysis

<table>
<thead>
<tr>
<th>Source</th>
<th>Type III Sum of Squares</th>
<th>Df</th>
<th>F</th>
<th>Sig.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Corrected Model</td>
<td>22881,662</td>
<td>3</td>
<td>202,134</td>
<td>.00</td>
</tr>
<tr>
<td>Intercept</td>
<td>341484,550</td>
<td>1</td>
<td>9049,91</td>
<td>0.00</td>
</tr>
<tr>
<td>Media</td>
<td>22617,178</td>
<td>1</td>
<td>599,393</td>
<td>0.00</td>
</tr>
<tr>
<td>learning styles</td>
<td>130,941</td>
<td>1</td>
<td>4,970</td>
<td>0.01</td>
</tr>
<tr>
<td>media * learning styles</td>
<td>40,854</td>
<td>1</td>
<td>5,083</td>
<td>0.00</td>
</tr>
<tr>
<td>Error</td>
<td>2226,275</td>
<td>5</td>
<td>9</td>
<td></td>
</tr>
<tr>
<td>Total</td>
<td>369800,000</td>
<td>6</td>
<td>3</td>
<td></td>
</tr>
<tr>
<td>Corrected Total</td>
<td>25107,937</td>
<td>6</td>
<td>2</td>
<td></td>
</tr>
</tbody>
</table>

R Squared = .911 (Adjusted R Squared = .907)

Based on the results of the two-way ANOVA analysis presented in the table above, it can be explained as follows: The results of hypothesis 1 test in the table show that the calculated F value in the application of audio-visual media is greater than the F table value (599.393> 3.998), and the significance value of F count (sing) = 0.000 less than the value of 0.05 (0.000 <0.05). Based on this, it can be concluded that Ho is rejected and Ha is accepted. It can be concluded that there is an effect of the application of audio-visual media on...
student achievement in thematic learning that can be accepted or proven. This means that the more intensively the teacher uses audio-visual media, the more learning achievement of students will increase.

The results of hypothesis testing 2 on learning styles can be seen that the calculated F value is greater than the F table (4.970 > 3.998), and the calculated F significance value (sing) = 0.017 is less than 0.05 (0.017 < 0.05). Based on this, Ho is rejected and Ha is accepted, so it can be concluded that there is an influence of learning styles on student learning achievement in accepted or proven thematic learning. This means that to improve student learning achievement, a teacher must pay attention to student learning styles to be more creative in using learning methods and media that are adapted to student learning styles.

The results of hypothesis testing 3 on the effect of applying audio-visual media and learning styles show that the calculated F value is greater than the F table value (5.083 > 3.998), and the significance value (sing) 0.002 is smaller than the value of 0.05. Based on this, Ho is rejected and Ha is accepted, so it can be concluded that there is an influence of the application of audio-visual media and learning styles on student achievement in thematic learning that is accepted or proven. This means that the combination of the use of audio-visual media and the learning styles of students can improve student achievement.

Discussion

Effect of Audio Visual Media on Learning Achievement

There are differences in the learning outcomes of students who use audio-visual media and those who do not use media. The learning outcomes of students using audio-visual media are higher than those who do not use media. This is based on research results where there is a significant difference in the pre-test and post-test values between the experimental class and the control class. The post-test scores of the experimental class as the group that was given the treatment, namely the application of audio-visual media after carrying out the pre-test, showed a fairly good increase. Whereas in the control class, namely as a comparison, after carrying out the pre-test, learning was carried out using the usual methods without using audio-visual media, the post-test scores showed less than optimal values.

The results of this study support the results of previous research conducted by Shodik which stated that learning using audio-visual media can improve student learning outcomes or achievement.17 In other words, learning

by using audio-visual media is superior in improving learning outcomes or student learning achievement compared to without using audio-visual media.

This is also supported by the opinion of several experts. Sanaky explained that audio-visual media can help teachers convey material to students so that students will more easily accept material so as to avoid misunderstandings.\(^\text{18}\) The use of audio-visual media in learning can increase the concentration of students, so that students will be more active and the learning outcomes or learning achievements of students will increase. So learning by using audio-visual media can help teachers to create a fun and not boring learning atmosphere.

**The Effect of Learning Style on Learning Achievement**

Student learning styles, both visual, auditory, and kinesthetic, have an influence on student learning achievement. Each child’s learning style will be different, so this learning style will affect a person in absorbing and processing the information he gets so that it will affect the results achieved. In this study it was concluded that the learning styles of students affect the learning achievement of students.

This is in line with the results of Suyono’s research which states that students’ learning styles affect learning outcomes.\(^\text{19}\) Meanwhile, according to DePorter “learning style is the key to developing performance at work, school, and in interpersonal situations”.\(^\text{20}\) So learning styles will affect students in receiving and processing the information they receive.

Depotter further said “the more modalities involved simultaneously, learning will become more alive, meaningful, and attached”.\(^\text{21}\) This means that teachers must understand how students’ learning styles are so that they can spur enthusiasm to learn with their own learning styles which then make students feel comfortable and enjoyable in learning. Thus an educator needs to understand the learning styles of students so that the learning process can run well and learning objectives are achieved, and students can improve their learning achievements.

**The Effect of Audio Visual Media and Learning Style on Learning Achievement**

There is an influence between the application of audio-visual media and learning styles on student achievement in thematic learning. This explains that the combination of the use of audio-visual media in the learning process by paying attention to the learning styles of each student has an effect on increasing...
student learning achievement. This is in accordance with the third hypothesis, namely that there is an influence of the application of audio-visual media and learning styles on achievement on student achievement in thematic learning.

Audio-visual media is media that has sound elements and picture elements. This media has utilized the use of hearing and vision. By using audio-visual media students will more easily understand the material presented by the teacher. Students will also experience real learning by using audio-visual media, because the material presented can be directly seen and heard.

The learning style is a way for someone to feel easy, comfortable, and safe when learning, both in terms of time and senses. The most popular and well-known learning modality until now is the VAK modality or learning style, namely visual, auditory, and kinesthetic learning styles. The visual learning style is a learning style that relies on sight, the auditory learning style relies more on hearing, while the kinesthetic learning style is more inclined to experience, movement, and touch. Students can use these three learning styles in learning, but most students are more inclined to one of the three learning styles.

Seeing the meaning of audio-visual media and the types of learning styles, it can be concluded that the three types of learning styles can be facilitated by using audio-visual media. Where students who have a visual learning style will be more comfortable learning with visual media, while students who tend to be auditory will certainly enjoy learning related to their sense of hearing. Likewise, students with a kinesthetic learning style can rely on audio-visual media which are more real in their movements. Therefore, between audio media and learning styles are very influential on student achievement. This is in line with the results of research from Zahara which states that there is an influence between audio visual learning media and students’ learning styles on learning outcomes. So the application of audio-visual media by paying attention to students' learning styles, both visual, auditory, and kinesthetic learning styles needs to be considered by an educator for success in the learning process.

Conclusion

Based on the analysis and discussion of research results, it can be concluded as follows. First, there is a positive influence on the application of audio-visual media on student achievement in class IV thematic learning at MIN 4 Nganjuk. This means that the learning process using audiovisual media can improve student learning achievement. Second, there is a positive influence...
influence of learning styles on student achievement in class IV thematic learning at MIN 4 Nganjuk. This means that student learning styles using Visual, Auditory, and Kinesthetic learning styles have an effect on increasing student learning achievement. Third, there is a significant influence of the application of audio-visual media and learning styles on student learning achievement on student achievement in class IV thematic learning at MIN 4 Nganjuk. This means that the application of audio-visual media combined with appropriate learning styles can improve student learning achievement significantly.

References


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