



Development of Contextual Visual Media in Increasing MTs Students' Learning Motivation

Euis Sri Hastuti ^{1 *}, Anna Fitri Hindriana ², Agus Yadi Ismail ²

¹ Students of the Biology Education Study Program at the Postgraduate School of Kuningan University

² Master Biology Education Study Program, University of Kuningan, Jl. Cut Nyak Dhien No.36A, Cijoho, Kec. Kuningan, Kabupaten Kuningan, West Java 45513, Indonesia.

^{1 *} Corresponding author

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ABSTRACT

Abstract

Motivation has a strategic role in a person's learning activities, without motivation no one will learn, and the learning process will not continue. The use of media in learning is very important because it makes the material presented easier to understand and makes students more motivated. Developing digital-based learning media is a good learning media to use in learning in the era of the industrial revolution 4.0 and is believed to be able to increase student motivation. The aim of this research is to develop contextual visual media that can increase student motivation. The method used in this research uses the ADDIE model developed by Dick and Carry. The research results are in the form of contextual visual media, which was developed using five stages, namely analysis, design, development, implementation and evaluation. The validity test results are in the very good category, so the visual media developed is suitable for use in research. Based on the t test results of 0.012, these results indicate that the hypothesis is accepted, so it can be concluded that there is an increase in motivation after learning activities using the developed contextual visual media.

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INTRODUCTION

Learning is the process of gathering information, not only requires great effort, but also sometimes makes students bored and frustrated so that they lose focus on learning activities. In situations like this, the use of media in the learning process is very important to attract students' attention and make learning activities more interesting and effective (Hasan et al., 2021). Media is a means of making something abstract real because media has the ability to present information visually, auditorily and kinesthetically. Visual media such as pictures, diagrams and animations can help students understand abstract concepts by providing concrete examples and helping the invisible become visible. (Ainsworth, 2006).

In the era of industrial revolution 4.0, digital technology-based learning media is the best. The contextual approach is a good learning approach for science content (Sukmadewi & Suniasih, 2022). A contextual approach helps teachers convey material that is relevant to real life and encourages students to connect what they know with how things happen in everyday life. According to Suasaningdyah (2018), Some of the benefits of learning with a contextual approach are as follows: a. Increase student motivation and engagement through understanding relevant learning content derived from real-world phenomena and examples; b. Improve students' ability to think critically and solve problems by using questions that focus on familiar contexts and this is clearly more effective in the learning process (Widiastuti, 2021).

Motivation is the driving force or driving force that makes students ready and willing to mobilize their skills, energy and time to achieve learning goals (Ahmad et al., 2022). Highly motivated students will show interest, activeness and participation in learning. Ultimately, this will result in better learning outcomes (Muliastri, 2020). The use of media in learning is important because it makes the material presented clearer and easier to understand, and increases student motivation. Based on the problems above, researchers conducted research on the development of contextual visual media to increase student learning motivation.

The benefits of this research include:

a. Theoretical benefits, this research can help

find new ideas for developing learning media that can be applied in various science education contexts; b. Of practical benefit, this research can help teachers create practical plans to increase students' motivation to learn, which will increase their active participation and their understanding of the science subject of ecology and biodiversity.

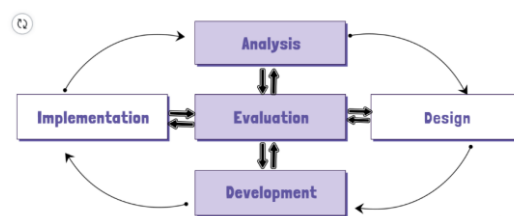
The aim of this research is to assess the impact of implementing developed contextual visual media on student motivation in learning science, with a focus on increasing student interest and involvement in the learning process. Although there is much research on visual media or contextual learning separately, there is little that combines the two. This research fills this gap and provides a practical solution to the problem of learning motivation.

RESEARCH METHODS

The aspect studied is increasing student learning motivation at Madrasah Tsanawiyah (MTs) through the development of contextual visual media in integrated science learning for class VII for the 2023 / 2024 academic year. This research was carried out at MTsN 7 Majalengka.

This research will use the ADDIE model, which was developed by Dick and Carry (1996) as part of an effort to design learning media. The model and its development are more complete than 4D models and are a strategy for developing and validating educational products (Gingga Prananda et al., 2020). The learning video product is the result of this research. The steps for developing learning media for the ADDIE development model are as follows:

Figure 1. ADDIE development model



The first stage is analysis, at this stage the researcher collects information by observing schools and conducting interviews with school principals and science subject teachers, as well as conducting journal analysis related to the development of

contextual-based learning videos. The second stage is Design, the researcher creates a product design by compiling a learning media flow and creating a product design in the form of a story board. The applications that will be used to create this visual media are Canva and KineMaster. The third stage is development, in this development process several activities are carried out including producing teaching materials, videos, animations, texts and audio-visual materials to be used to achieve predetermined learning objectives, then a validation process is carried out by material experts and design experts. learning. The fourth stage is implementation, at this stage the developed media is implemented in the experimental class. And the final stage is evaluation, at this stage revisions are made according to input from the validator team.

The population in this study were all 7th grade students at MTsN 7 Majalengka, and the sample consisted of two classes which were divided into a control class and an experimental class totaling 50 students. The data collection techniques in this research include interviews, expert validation, observation and questionnaires. To measure the level of achievement in this research, data collection tools are needed, namely interview guides, material expert and learning design expert validation sheet guides, and student motivation questionnaire sheets and student response questionnaires to contextual visual media.

Once the research is complete, data from previous studies is analyzed. This includes interview results, product validation, student response questionnaire scores to visual media, and learning motivation questionnaire scores from pretest and post-test results in the control class and experimental class. After the research, statistical analysis of the data obtained related to motivation and scientific literacy was carried out. Processing was carried out using SPSS and Microsoft Excel statistical programs. After the research was completed, the data that had been obtained was analyzed using several methods, namely testing the prerequisites for analysis by carrying out a normality test and homogeneity test, then conducting a hypothesis test by carrying out a t test.

RESULTS AND DISCUSSION

This research and development uses the ADDIE development model, which includes five stages: analysis, design, development, implementation, and evaluation. The results of this research and development are contextual visual media products in the form of learning videos for Class VII MTs/SMP students. By using contextual visual learning media, the aspects studied include increasing the interest and knowledge of class VII students.

1. Anaysis Stage

Needs analysis was carried out through observations and interviews with school principals and science subject teachers. The purpose of this interview is to collect information about teachers and students as well as general teaching and learning procedures and the application of visual media in learning. The interview results show that teachers face a number of problems during the learning process. This includes inadequate facilities and infrastructure, uninteresting learning processes, students who are not focused, and students' lack of cognitive abilities.

2. Design Stage

Several steps at the design stage are, preparing the visual media flow, by identifying the goals to be achieved, mapping the material and creating learning modules; Next, create a product design in the form of a story board which includes selecting elements such as text, images, animation, video, narration and music.

3. Development Stage

The development stage is the stage where the product is perfected with the aim of creating a product resulting from a development process that has gone through a revision stage with several experts, including material experts and learning design experts. Canva and Kinemaster applications are used to develop this visual media.

Based on data from validation results carried out by material expert validators, a percentage of 80% was obtained for the success aspect of the material content, 60% for the aspect of being free from conceptual errors, 80% for the current and up-to-date aspect of the material, 100% for the aspect coverage and depth of the material, and 80% for the

adequacy aspect of the references used, so that an average score of 80% is obtained in the good category based on the results of the Likert scale analysis so that the visual media developed is suitable for use in research.

Based on data from validation results by the learning design experts above, a percentage of 80% was obtained for the aspect of suitability of media delivery strategy with the characteristics of the relevant audience (students), 80% for the aspect of determination of media delivery strategy so as to enable ease and speed of understanding and mastery of material, concepts or skills. , 80% for the level of possibility aspect of encouraging students' ability to think critically and solve problems, 100% for the level of contextuality aspect with application/application in real life that suits the characteristics of the relevant audience (students), and 100% for the aspect of relative advantage (relative advantage) , the accuracy of media selection was compared with other media, so that an average score of 88% was obtained in the very good category based on the results of analysis on a Likert scale so that the visual media developed was suitable for use in research.

The validation value from the material expert was 80% and the learning design expert was 88%, so the average score from the two experts was 84%, which was in the very good category based on the results of the Likert scale analysis.

4. Implementation Stage

Before the series of research was carried out, the product trial phase was carried out with 25 students in class VII taking part in the product trial. The purpose of this trial is to find out whether the contextual visual media created is well received by students or not.

The results of student responses to visual media can be seen in the graph.

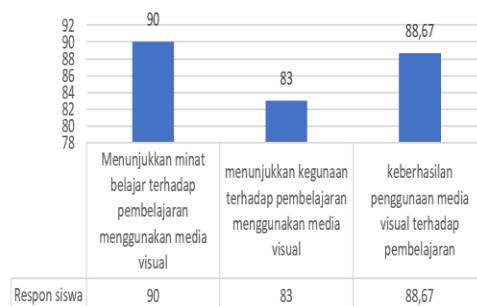


Figure 2. Graph of Questionnaire Results of Student Responses to Contextual Visual Media

Based on the data diagram, the results of student questionnaires on contextual visual media show an average value for indicators of interest in learning with visual media of 90, an average value for indicators of the usefulness of visual media of 83, and an average value for indicators of success in using visual media. learning amounted to 88.67. Based on the results of the questionnaire table above, of the 25 student responses, some gave positive responses and others gave negative responses. The results of product testing with ten instruments show that students have an average positive percentage of 87.50%, which shows that they are in the very good category based on the Likert scale.

Student learning motivation was measured using an instrument in the form of a questionnaire included in the pre-test and post-test with 20 questions. The following are the comparison results of the pretest and post-test in the control class and experimental class.

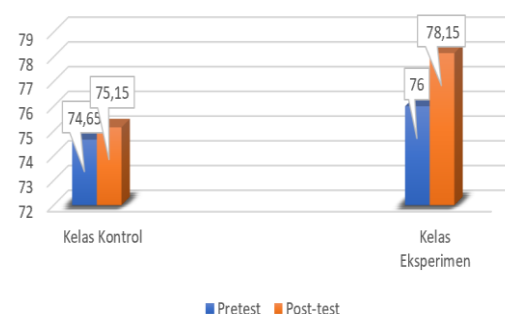


Figure 3. Graph of learning motivation

Based on the comparison diagram of pretest and post-test scores on the results of the motivation questionnaire, the control class got an average score of 74.65 for the pretest and for the post-test

it got a score of 75.15, for the experimental class it got an average pretest score of 76. and 78.15 for the post-test score.

Before starting statistical test analysis, prerequisite tests for normality and homogeneity must be carried out first. The results of normality, homogeneity and t tests were carried out on experimental class VII A and control class VII D data. The results of the normality, homogeneity and t tests can be seen in table 1.

Table 1
Motivation Calculation Table in the Control Class and Experimental Class

Results Calculation		Extraneous Load	
		Control	Experiment
Number of samples (n)		25	25
Normality test	Pretest	0,616 > 0,05	0,393 > 0,05
	Post-test	0,252 > 0,05	0,142 > 0,05
Homogeneity Test		0,864 > 0,05	
T test		0,012 < 0,05	

Based on the output produced from the normality test in the experimental class, the significance value in Shapiro-Wilk is 0.393 for the pretest results and 0.142 for the posttest results. In the control class, the value for the pretest results was 0.616 and the value for the posttest results was 0.252. These values indicate that the data used in this study is normally distributed. Based on the homogeneity test results, the Based on Mean significance value was 0.864. This means that the significance value is more than 0.05, so it can be concluded that the variance of the experimental class post-test data and the control class post-test data is homogeneously distributed.

After obtaining normal and homogeneous data, further data analysis was carried out to test the hypothesis, namely the t-test using SPSS. Based on the data in the table above, the results of the t test obtained a two-sided p significance for the pretest and post-test for the experimental class of 0.012,

where this result shows that the hypothesis is accepted, because the t test results <0.05. So it can be concluded that there is an increase in motivation after using visual media in learning about ecology and Indonesian biodiversity.

5. Evaluation Stage

At the final evaluation stage, the author added sections suggested by the validation team.

The results of the analysis, which are discussed in the research results section, show that contextual visual media can increase the motivation of class VII students at MTs. This can be seen from the results of expert validation which considers visual media very suitable for use, as well as the results of hypothesis testing which shows that learning motivation has increased.

Based on the results of the t test in the experimental class of 0.012, the hypothesis is accepted. Thus, it can be concluded that there is increased motivation to use visual media in learning ecology and biodiversity in Indonesia. Contextually based video media can make students think about what they learn about everyday life. This makes them more interested and more motivated to learn (Fairuzabadi et al., 2023).

Teachers must be creative and innovative when teaching so that students do not get bored and achieve learning goals. According to Yakovleva & Goltsova (2016), teachers function to arouse students' interest in learning, facilitate students to find and develop their learning motivation, and fulfill student satisfaction from classroom learning (Hanif et al., 2020).

According to Piaget, the formal operational stage is the stage of children's cognitive development that occurs between 11 and 15 years. At this stage, children begin to make decisions based on their own experiences and think more abstractly, idealistically, and logically (Fairuzabadi et al., 2023). Visual media such as pictures, diagrams, and animations can help students understand abstract concepts by giving them concrete examples and making invisible things clearer. (Ainsworth, 2006).

Hayati (2017) states that audio visual learning media is an intermediary medium that is absorbed through hearing and sight, thus providing an environment where students can acquire the attitudes, knowledge

or abilities needed to achieve goals (Wijayanti & Mawardi, 2022). One of the benefits of learning using a contextual approach according to Suasaningdyah (2018) is student motivation and involvement through understanding relevant learning content that arises from real world phenomena and examples. (Widiastuti, 2021).

Contextual visual media can be used for a variety of learning styles, allowing students to process the material in a way that best suits their needs. Incorporating this media into the learning environment, the learning environment becomes more positive and empowering, this encourages students to actively participate in learning and learn the subject matter (Mulyati et al., 2022). Students can better understand and remember concepts by including real-life examples and visual representations. The use of contextual visual media can significantly increase student motivation (Dewi & Yanita, 2020).

CONCLUSION

This contextual visual media is said to be feasible because it has gone through an expert validation process and direct field trials with very feasible results and is able to increase student learning motivation. Motivation can increase interest and curiosity in science, students who are motivated in learning science tend to have greater interest and curiosity in natural phenomena and scientific knowledge.

SUGGESTION

Research into the development of contextual visual media is recommended in the form of games and the material studied is abstract for students, for example cell material.

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