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USE OF BASED LEARNING MEDIA MOTION GRAPHIC ANIMATION VIDEO TO ENHANCE SOCIAL STUDIES LEARNING OUTCOMES

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Abstract

Problems in learning activities and the impact on social studies learning outcomes still need improvement. This is because students are getting used to using digital media in carrying out various activities. However, teachers have yet to be able to innovate and take advantage of it, especially in learning to motivate students to be more active by using learning media and increasing social studies learning outcomes. This study aimed to determine the effect of using animated video-based learning media on motion graphics on social studies learning outcomes. This type of Research uses a quantitative approach with a quasi-experimental method, and the research design is a non-equivalent control group design with pre-test and post-test. The population of this Research is the seventh-grade students of SMP Negeri 2 Cisewu. The samples were taken by purposive sampling technique, namely the experimental and control classes. The instruments used in this study werein the form of tests and non-test. Based on the results of the statistical analysis of the initial ability between the experimental and control classes, there was no significant difference. As for the results of the final test, it can be seen that there is a difference between the experimental class and the control class. The control class has lower learning outcomes than the experimental class, which usesmotion graphic animation video learning media with very high improvement categories. The use of motion graphic animation videos learning media also receiveda good response from students. This is evidenced by students' enthusiasm for ongoing learning, which impacts increasing social studies learning outcomes.
Keywords: Motion Graphic Animation Media; Social Studies Learning; Learning Outcomes.

Preliminary

Education plays a role in creating a life that is intelligent, peaceful, open, and democratic. Success in the world of education cannot be separated from supporting factors such as learning media and management school as well as policy school. Development curriculum needs to be conducted systematically as Suite plan education, which is an instrument to improve the quality of education. Problems of factualization that occur in the implementation process of learning in Junior High School (SMP) have difficulty, especially in eye lesson social studies. In addition, the problems that occur in the form of quality activity study teach which impact on results study participant educate Becomes ingredient considerationthe independent campus learning curriculum (MBKM) was designed.

Problems in learning that emphasize the context are too *content-oriented.* For themself, teaching is a process conveying Theory learning which is essential for all Theory lessons following the demands the curriculum hasconveyed, whether students understand the material or not. So the world of education is influenced by the world of technology. However, with the developing world technology the more many influence use media in learning, influence use media in These various things are corroborated by the narrative of Computer

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Technology Research (CTR) which states that "people can only remember 20% of what they see" and 30% of what is heard. However, people can remember 50% of what is seen and heard and 80% of what is seen and heard and done all at once" (Kusnanto, et al., 2010). Then the actual education policy will be seen by implementing the applied curriculum (Munandar, 2017).

Based on the results observation researcher to participate educate in SMPN 2 Cisewu on eye lesson social studies and found a problem in activity learning which influenced the results study of social studies. Learning used by a teacher in eye lessons, social studies still character conventional. Where teachers are less creative and innovative, conventional and dominant learning media with assignments to summarize and memorize social studies subject matter from books package into the way students are instructed. So in the era of the industrial revolution 4.0, education is required to be more creative, innovative, effective, independent, and smarter. If education cannot adapt to this era, then school graduates are no longer relevant to be someone beneficial to society. In addition, the Industrial Revolution 4.0 has made it easier for people to carry out activities with more effective and efficient time. In this era, information technology has become the basis of human life, including in the field of education in Indonesia, even in the world that is currently entering the era of the 5.0 industrial social revolution (Heru, 2019). The impact of Revolution industry 4.0 and *Society 5.0* in the world of education in Indonesia, starting with the digitization of the education system, which requires every element in the education field to adapt to the changes that occur. One example is the learning system in class, which will but no no possibly replace the learning system indirectly or through the internet.

Online-based learning and learning media are wrong; one character that appears in the education of the *Society* 5.0 era can maintain functional education moment this. Education Becomes wrong, one function social which goes hand in hand with civilization, including civilization in the era of *Society* 5.0. Media learning wrong one source study which could help process study teach. Media learning is needed in process study teaching so that participants can absorb Theory study with good and activity learning to be more effective. One of them is *Motion Graphic* media, a medium that combines text and pictures that move in one space and time (Gallager, 2007). Media *motion graphics are* usually accompanied by clip sound, so the technology captures, records, processes, transmits, and rearranges moving images. The media provides distorted information using signals from television, film, video, *tape,* or other non-media media computers. Media animation is a tool to help process learning through images that move like life (Agustien et al., 2018).

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Method

The research approach is quantitative with a quasi-experimental type *(quasi)* with a *control group design*. According to Arikunto (2021), "Experiment is a way " to look for connection because consequence (connection causal) Among two factors which on purpose causedby the researcher by eliminating or reducing or setting aside other factors that disturb". The location used in this study was SMP Negeri 2 Cisewu, with a population of the whole Participant Educated class VII in school; the sample was taken with purposive sampling from class VII A students as the experimental class and VII B as the control class. Data collection using test and non-test instruments, test instruments in the form of an initial test *(pre-test)* and a final test *(post-test),* while the test instrument is in the form of a questionnaire. The variable measured from the study consists of two variables (bivariate) among them learning social studies using video media motion graphic animation and learning outcomes that later will be analyzed using a number of test statistics.

Results and Discussion

Based on the results of statistical data processing in order to determine the effect of media use *motion graphic* animation video-based learning to improve class social studies learning outcomes VII SMPN 2 Cisewu, then could be understood as following this:

1. Analysis Data Test Beginning *(Pre-test)*

a. Test Normality

What type of statistics is used For further data processing, the *Liliefors test is carried out*, and the hypothesis is as follows:

Ho : results *pre-test* on class experiment and class control no distribute normal.

Ha : results *pre-test* on class experiment and class control distribute normal.

Criteria testing test normality data as following: if sig. > then Ha received.

Table 1. Test Normality Results *Pre-Test* Second Class

Tests of Normality

Class		Kolmogorov-Smirnov [a]			Shapiro-Wilk		
		Statistics	df	Sig.	Statistics	df	Sig.
Score	Experiment	.207	20	.025	.875	20	.014
	Control	.127	20	.200 *	.932	20	.166

Source: Results Research (2022)

Based on the table data not enough from 50, so used test Shapiro-Wilk" (Sundayana, 2020, p.88). From the table obtained, the value of sig. The experimental class is 0.014 with of0.05 because 0.014 <0.05, then the results of the *pre-test* in the experimental class are not

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distributed normal. While the value of sig. The control class is 0.166 and 0.05 because 0.166 > 0.05, then the pre-test results for the control class are normally distributed. Because one class is not normally distributed. Because one of the data is not normally distributed, the next test uses Mann-Whitney.

b. Test Mann Whitney Pre-test

This test is used to determine the difference in the average of the two sample groups, and the hypothesis is as follows:

Ho : no there is a different in the results *pre-test,* which is significant Among class experiments andclass control.

Ha : there are different results *pre-test,* which is significant Among class experiment and classcontrol.

Based on the results of the normality test identified because both of them distribute no normal, the hypothesis uses statistics non-para metric with this using test *Mann Whitney.*

Table 2. Data Results *Mann* test *Whitney* Data Test Beginning *(Pre-Test)*

Test Statistics

	Score
Mann-Whitney U	188,000
Wilcoxon W	398.000
Z	-.328
asymp. Sig. (2-tailed)	.743
Exact Sig. [2*(1-tailed Sig.)]	.758 a

Source: Results Study (2022)

Based on the calculation results, the Asymp.Sig.2-tailed value is 0.743, and if 0.05 means 0.743 > 0.05, then Ho is accepted. From these data, it can be concluded that there is no significant difference in initial ability between the two classes before learning starts.

2. Analysis Data Test End *(Post-test)*

a. Test normality

what type of statistics is used for further data processing. In this test, the study used the *Liliefors test* for the hypothesis as follows:

Ho : Results *post-test* on experimental class and class control no distribute normal

Ha : Results *post-test* on class experiment and class control distribute normal

Criteria testing test normality data as following: if sig. > so Ha received.

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Table 3. Test Normality *Post-Test* Results
Tests of Normality

Class		Kolmogorov-Smirnov [a]			Shapiro-Wilk		
		Statistics	df	Sig.	Statistics	df	Sig.
Score	Experiment	.207	20	.025	.875	20	.014
	Control	.156	20	.200 *	.949	20	.347

Source: Results Study (2022)

Based on the table that the data is less than 50, the Shapiro-Wilk test is used (Sundayana, 2020, p.88). From the table obtained, the value of sig. The experimental class is 0.014 with of 0.05 because 0.014 <0.05 then the *post-test results* in the experimental class are distributed abnormally. While the value of sig. The control class is 0.347 and is 0.05 because 0.347 > 0.05, so the results *pre-test* for class control distributes normally. Because wrongone class no distribute normally. So, test next, use the test *Mann-Whitney*.

b. Test Mann Whitney Post-test

Test this used for knowing difference average from second group sample, and the hypothesis is sebgi following:

Ho : Not, there are different results *post-test*, which significant Among class experimentand class control

Ha : There are different results *post-test*, which significant Among class experiment andclass control

Based on the results of identifying the normality test between the experimental and control classes that the two distribute no normal, the hypothesis uses non-statistics parametric with this using test *Mann Whitney so that the* Mann-Whitney test can be identified and used to analyze the two data that can be normally distributed.

Table 4. Results *Mann* test *Whitney* Data Test End *(Post-test)*
Test Statistics

	Score
Mann-Whitney U	36,000
Wilcoxon W	246.000
Z	-4.485
asymp. Sig. (2-tailed)	.03
Exact Sig. [2*(1-tailedSig.)]	.006 [a]

Source: Results Research (2022)

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Based on the calculation results, the Asymp.Sig.2-tailed value is 0.03, and 0.05 means 0.03 <0.05, then Ho is rejected, and Ha is accepted. From these data, it can be concluded that there is a significant difference in final ability between the two classes after learning to use media learning-based videos and animation *motion graphics.*

3. Test Gain Normalized

The normalized gain test is a test to provide an overview of the improvement of social studies learning outcomes for class VII before and after using the media learning videos and animation *motion graphics*. The gain was obtained from the difference *post-test and pre-test* However, before that, the data analysis of the *pre-test* and scores was carried out first *post-test and* second group sample. After data from the test beginning and test end were collected, the subsequently conducted testing gain normalized. Based on results calculation, gain normalized results in form percentage, making it easy to classify each student in the categories obtained. Results obtained as follows:

Table 5. Percentage enhancement results study

No	Category	Amount participant educate	Percentage
1	Tall	13	65%
2	Currently	7	35%
3	Low	0	0
Amount		20	100%

Source: Results Study (2022)

Based on the table, the percentage enhancement results study which used media learning got that category which tall get a percentage of 65% with many Participants educating 13 people. In comparison, the medium category got a percentage of 35% with many participants to educate seven-person, so that could conclude that a class experiment experienced a significant increase in social studies learning outcomes by using learning media-based video animation *motion graphics*. Based on this, according to the results of Research from (Tetep & Dahlena, 2021, p. 1580) stating that it is *based on the application of a fun game-based social studies learning pattern with a strategy of showing pictures to students and video footage to students related to social studies materials such as the introduction of regions in Indonesia, culture and the solar system*. So that the application of social studies learning patterns through innovative learning media with video footage to students related to social studies material such as introduction to regions in Indonesia, culture, and the solar system.

4. Analysis Data Attitude *(Observation)*

a. Analysis Data Attitude

This study uses an attitude scale, namely a scale of four concerning the scale Likert.

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The instrument used to examine students' attitudes towards using media learning-based videos and animation motion graphics is a questionnaire.

Table 6. Interpretation Scale Attitude Participant Educate By General

Aspect	Amount	Amount Whole	Category
For media learning, use videos, *motion* animation *graphic*	711	1154	Very good
To questions about learning social studies	441		

Sources: Results Research (2022)

Attitude scale interpretation students to both aspects get category excellent. Aspect first got the amount 711, and aspect second got the number 441. so it can be concluded that the interpretation of the Participant's attitude scalestudents in general towards learning using video-based learning media animation *motion graphic* got response attitude which very good. So that this follows the statement (Ulfa & Tetep, 2018) that learning media is a tool that teachers in the learning process can use to facilitate the material being taught.

Based on the activity beginning activity teacher convey an apperception of sub Theory of entry into Islam to Indonesia, and the Spread of Islam in Indonesia, then conveys the learning objectives to be achieved. In the main activity, the teacher divides students into four groups. Every student is directed to sit with their respective groups and then watch the video animation that has been shown.

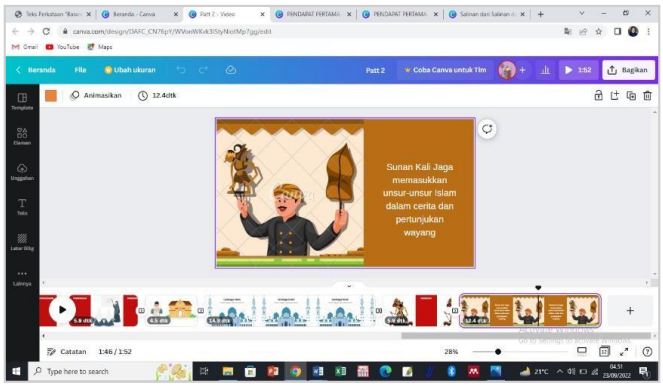

Figure 1. Motion Graphic Learning Media

Based on the figure, it can be identified that teachers can carry out the learning process by displaying the results of the learning media that have been made. Moreover, it can increase students' activeness in the learning process regarding the Theory life of Indonesian society during the Islamic period with the activities discussed in class. Then in the fourth woman, the implementation of learning uses based media *motion graphic* animation videos in the experimental class carry out all indicators On the fourth woman in the implementation of learning using animated video-based media *motion graphic* on class

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control also no far different with meeting previously.

Based on the results of observing the activities of participants in the experimental group, when activity learning was in progress, a significant part of the Participant education noticed an excellent explanation of the stages of learning material delivered by the teacher. Some participants students are interested in participating in learning using video-based media motion graphics animation. Meanwhile, (Kustandi & Sutjipto, 2011) emphasizes that media learning is a tool that can help the teaching and learning process and serves to clarify the meaning of the message conveyed so that it can reach destination learning with more good and perfect.

Figure 2. Display of motion graphic-based learning videos

Based on the picture, it can be identified that the response of students who are happy, excited, and involved in following and discussing with the group can be identified. Apart from amount participants, Students are seen actively asking and responding during class discussions. Students could already explain the Theory which was learned from the results of watching videos. While on group control learning held with the use method Conventional lectures are centered only on the teacher. Student involvement in activity learning so that still not enough. Teachers only once in a while throw questions or ask and answer students about the material being taught. So when learning is only dominated by listening and taking notes, Theory is delivered by the teacher. Level of liveliness, enjoyment, creativity, and ability to think Participants educated on group experiment taller compared with group control.

1. Ability Beginning Participant educate *(Pre-test)*

Based on the study results, a pre-test, according to Sudijono (in Effendy, 2016), is a test held with a destination for knowing where the Theory or ingredient lesson taught could be mastered by the Participant educate". On the other side, Sudijono explains that a *pre-test* will motivate students to prepare themselves before processing learning in progress in school.

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When conducting *pre-test has* seen, the ability of the beginning Participant to educate Among the class experiment and class control no, there is a significant difference due to several factors, such as the unpreparedness of students to learn and lack of concentration when starting learning. Due to the initial ability of Participant educate no there is difference, so conducted test normality use test *Liliefors* from the final test data *(post-test)* to provide an overview of improving learning outcomes before and after learning. So that the pattern of technological development is increasingly rapid, the role of technology, especially in the learning process, will provide convenience in all areas of life. Including in the field of learning, where technology has facilitated educators in an interactive learning process with innovative learning media (Mulyana, Tetep & Triani, 2022; Effendy, 2016).

Motion Graphic media is a media that combines text and images that move on one room and time (Gallagers, 2007). Basically, *motion Graphic* media is a combination of design/animation-based pieces visual media that combines film language with graphic design. This can be achieved by incorporating various elements such as 2D/ 3D, animation, video, film, typography, illustration, photography, and music. So *motion graphics* is one of the branches of graphic design that means *motion* as movement and *graphics* as the art of drawing in computer which is an amalgamation of illustration, typography, photography and videography with use technique animation which made with move picture or combine part Images which have continuity so that seen move so seen life and produce a videos which interesting, dynamic and could shown through audio visual.

Thus, according to (Tetep & Arista, 2022), interactive learning media are multimedia-based tools equipped with controllers that users can operate to choose the desired content concept. The controller can be a computer, laptop, and other electronics. The context in multimedia-based learning media is interactive learning, games, and others.

2. Ability End Participant Educate *(Post-test)*

According to Sudijono (in Effendy, 2016), a post-test is a test carried out to know whether all the important material has been mastered as well as possible by students. Data used for *post-test* calculation using normalized *gain data due to initial ability* participant educate no there is difference. Class experiment and class control given *post-test* after activity learning take place. Because second data distribute no normal, test stats use non parametric, with Thing this so use test *Mann Whitney*. From the results of data analysis and non-parametric statistical calculations show that the *post- there is a significant difference between the experimental* class and the control class, then learning with use media videos animation *motion graphic* effective for applied.

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Based on the results of the analysis of the data obtained, there are differences in the learning outcomes of participants educate Among class experiment which given treatment and class control which no given treatment, where the average learning outcomes of the experimental class are superior to the average results study class control, and there is enhancement which significant to results study experimental class students use learning media. This shows that the media *motion graphic* animation-based video learning has an effect on yield improvement study of social studies.

3. Student Learning Outcomes Before and After Using Learning Media Based on Videos Animation *Motion Graphics*

When the experimental class is given a *pre-test* before the learning activities begin, based on the results of data and statistical calculations there is no significant initial ability before the lesson begins. This can be seen from the results of data analysis and calculations statistics show that score *pre-test* no there is difference. Whereas after learning begins then given treatment using learning media Based on *motion graphic animation video,* there are significant differences. It can concluded that learning use media videos animation *motion graphic* affect the social studies learning outcomes. The study's results above show an increase in students' understanding of social studies learning.

Thus, this success cannot be separated from several factors that may influence student learning outcomes, including students' ability, explanation of the material, time spent for study, environment, and experience (sudijana, in meylani, 2017). Then that *reality is a challenging topic in computer animation because the driven and structural information in a single still image is inadequate* (Hu, et.al., 2020). So in computer animation because of the driven and structural information in a single still image is insufficient.

4. Attitude Participant Educate To Use Media Learning Based on Videos *Motion* Animation *Graphics*

Based on the calculation of the questionnaire obtained, the interpretation of students' attitude scaleon the use of learning media get a very good category. So that it can concluded that the interpretation of the scale of students' attitudes in general towards learning using video-based learning media animation *motion graphics* get a response good attitude. From the results of the study it was found that learning activities using instructional media based on *motion graphic animation video has an* effect on increasing Social studies learning outcomes of class VII A students on the material of Indonesian people's life in During the Islamic period this can be seen from the results of the average *pre-test* and *post-test scores*

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and responses students to the learning media used. In terms of student response data on learning media in terms of 4 aspect scales of assessment that use questionnaires that are very practical, practical, not enough practical, and not practical. Questionnaire response which used student response questionnaires, teachers and guidebooks, limited group test questionnaires and questionnaires test group large with use scale *likert* type four.

Conclusion

Based on results analysis and discussion by overall against data study about influence use media learning based videos animation motion graphic to enhancement results study Participant educate, so in accordance formula problem researcher get conclusion that there is no significant difference between the experimental class and the control class from results pre-test before start learning. However after applying media videos animation motion graphics , the results show significant differences between experimental and control classes after the learning took place as seen from the results of the post-test. Results The pre-test and post-test that have been compared have shown that there is an increase in a significant effect on student learning outcomes in social studies subjects by using motion graphic animation video learning media. In addition, video-based learning media motion graphic animation received a good attitude response from students. Students' enthusiasm can evidence it at the time of learning and influential on score post-test which satisfying.

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