

UTILIZATION OF YOUTUBE AS A SUPPLEMENT OF MAPPING SKILLS TEACHING MATERIALS FOR HIGH SCHOOL STUDENTS IN BANYUWANGI DISTRICT

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ABSTRACT

This research was conducted to improve the mapping skills of NU Genteng high school students using Youtube videos and combined with teacher-made geography modules. This study used a quasi-experimental design (quasi-experimental) which measured treatment through the pretest and post-test results. The treatment given is the same for students. As a result, students scored higher on the average post-test score compared to the pretest. This treatment affects students' academic achievement, especially in mapping skills in class XII social studies students. Youtube videos help students understand learning subjects more effectively.

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Keywords: Youtube, Teaching Material Supplement, Mapping Skills.

INTRODUCTION

The role of technology in society can provide many resources in the online realm, such as learning webs that are used as sources of information in education. Advances in technology can assist teachers and students in providing knowledge related to improving the quality of education. Youtube is a supporting tool in teaching geography education (Ebied et al., 2016). Video Tutorials on youtube are very effective in learning mapping skills in general. Existing content can be integrated into mapping applications that reflect geographic Information System (GIS) skills (Thamsi et al., 2021).

Learning videos can help students understand the material when used in conjunction with modules (Supratiknya, 2011). Most students prefer watching YouTube videos because they can observe the teacher demonstrating the learning material.

In addition, students can ask the teacher to provide a video with many examples and explanations related to the material (Kamhar & Lestari, 2019). Utilization of youtube videos in teaching and learning activities can expand students' freedom of creativity and encourage them to work harder in learning (Kamhar & Lestari, 2019). Integrating youtube videos into learning can support education development in the classroom (Iwantara et al., 2014). The mapping skills material can include various online resources such as youtube videos. Youtube can provide more detailed information with examples that students can repeat independently (Thamsi et al., 2021). This can help students understand mapping skills more optimally.

Map mapping skills with the ArcGIS application are the main topics in geography learning (Ahaliki, 2017). This skill focuses on students being able to make basic maps with

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computer applications. The problem that often arises when practicing mapping skills is students' lack of understanding when giving material (Ramadhani & Awaluddin, 2016). Material skills delivered too quickly or not clearly in words make students need to add more explicit material (Handoko, 2012).

This research was conducted in class XII social studies at SMA NU Genteng, where the mastery of mapping skills is still lacking. Students' understanding of using ArcGIS applications still needs to be strengthened. Therefore, it is necessary to use youtube videos as a supplement to teaching materials for mapping geography subjects at SMA NU Genteng.

LITERATURE REVIEW

There is an increase in the use of the internet in education because it positively influences learning activities in the classroom (Rice et al., 2011). The YouTube use approach emphasizes several educational recommendations regarding the effectiveness of using YouTube videos in education (Radonjic et al., 2020). In addition, researchers observed the effect of YouTube videos on the effectiveness of learning in the classroom (Frag et al., 2020). The critical role of YouTube videos in classroom learning has many benefits for developing students' potential (Duncan et al., 2013).

YouTube's potential in online video development has many resources for finding content and video tutorials (Iftikhar et al., 2019). One of the benefits of using YouTube in online education is that it can provide online access to some videos for free (Albahlal, 2019). Therefore, the many tangible benefits of using YouTube can be used as a complement to the learning module.

METHODS

This study uses a quasi-experimental design with a One Group Pretest Posttest design to determine the effectiveness of giving treatment in improving mapping skills in Class XII Social Sciences High School NU tile. The One Group Pretest Posttest design was used because it required fewer samples than other experimental designs. The One Group Pretest Posttest design is a quasi-experiment where measurements are taken before and after

giving treatment to a predetermined group (McKay-Nesbitt & Bhatnagar, 2017). One Group Pretest Posttest design was used in action research. This technique is used to evaluate the program or treatment on the sample. This research design has two stages. First, one group is conditioned to the same treatment, and an evaluation is carried out. Both pretest and post-test designs require measurement of the dependent variable before and after treatment (Allen, 2017).

The procedure carried out in this research is that the materials used are selected and taken that are directly related to the mapping topic. Students are conditioned to have a smartphone and an adequate internet connection. In addition to online, the provision of video material is also made through Share it and Bluetooth. So, in addition to playing videos online, participants can also play them repeatedly until they understand the material. The research subjects were students of class XII IPS with a total of 46 students consisting of 20 boys and 26 girls with a schedule Monday and Tuesday from 08.00-09.00 in the 2020-2021 school year. This study used all students of class XII IPS in collecting data. Pretest and Post-test scores are the data sources in this study.

Analysis of the data in this study using SPSS Statistic 23, which is used to analyze youtube videos as a supplement to teaching materials for mapping skills for students of class XII social studies geography subjects. Test results used:

1. Mean and Standard Deviation to analyze the pretest and post-test scores given before and after the use of youtube videos as a supplement to teaching materials to improve mapping skills.
2. Wilcoxon Signed-rank Test to determine whether there is a significant difference between the student's pretest and post-test mean scores.
3. Cohen's d values to analyze the effect of youtube videos in improving the mapping skills of class XII IPS students in geography subjects.

Tabel 1. Cohen's d-value

Impact Estimate	Explanation
< 0,20	Low Impact
0,21-0,79	Medium Impact
>0,80	Big Impact

RESULTS AND DISCUSSION

Calculation of the Average Pre-test and Post-test scores

Table 2. Student Pre-test and Post-test Results

Data	N	Mean	SD
Pre-Test	46	9.083	3.346
Post-Test	46	11.728	4.522

Based on the results of the calculations in table 2, the average pre-test is 9.083, and the post-test is 11.728. Therefore the average post-test score is higher than the average pre-test score. This shows that the value of mapping skills in class XII social studies at senior high school NU Genteng has increased after using youtube videos as a supplement to teaching materials in improving mapping skills.

The result of the pre-test standard deviation is 3.346, while the post-test result is 4.522. This shows that the post-test has a higher standard deviation than the pre-test. It can be concluded that the grade XII IPS students of SMA NU Genteng on the post-test results have increased due to the provision of treatment.

This is also supported by Ebied's research which states that YouTube videos can make learning active and learning outcomes increase (Ebied et al., 2016). The use of

youtube in learning can help maximize students' mapping skills and support academic success. In addition, YouTube can be an effective tool for teaching innovative and authentic education if appropriately used so that it can attract students' attention (Sakkir et al., 2020).

Differences in Pretest and Posttest Scores to find out the significant difference between the student's pre-test and post-test scores, the Wilcoxon Signed-rank Test was tested with the results in Table 3. The explanation from table 3 of the results of the data normality test shows that the pre-test score is generally distributed with a p-value of 0.223, while the post-test score is not normally distributed with a p-value of 0.041. It can be concluded that the appropriate test is to use the Wilcoxon Signed-rank Test compared to the Paired T-Test in the parametric test.

When the Paired T-Test normality assumption is not appropriate, the Wilcoxon Signed-rank Test can be used as a substitute (van Doorn et al., 2020). This calculation can also compare individual scores or scores over time (time series). The Wilcoxon Signed-rank Test and the Paired T-Test have various variations because the calculation of the Paired T-test compares the group; meanwhile, the Wilcoxon Signed-rank Test determines the order of group ranking.

Table 3 Shapiro-Wilk Test for Normality Test of Respondents' Pretest and Posttest Scores

Dataset	Statistik	df	Sig.	Explanation
Pre-test	0,965	46	0,223	Distribusi Normal
Post-test	0,942	46	0,041	Distribusi Tidak Normal

Table 4. Wilcoxon Signed-rank Test comparing the results of Pre-test and Post-test

Rank		Mean	Sum	Z-Value	P-Value	Explanation	
Post-test - Pre-test	Negative	15 ^a	9.81	98.00	-3.271 ^b	0.001	Significant
	Positive	28 ^b	20.14	465.00			
	Ties	3 ^c					
	Total	46					

^aPosttest < Pretest

^bPosttest > Pretest

^cPosttest = Pretest

Tested at a significance of 0.05

Table 4. shows that the student's pretest and post-test Z scores are -3.271 with a p-value of 0.001 at a significance level of 0.05. The results of the interpretation of the data indicate that there is a significant difference between the student's pretest and post-test

scores. So it can be concluded that youtube videos effectively improve the mapping skills of class XII IPS students in geography. These results follow research Orús et al., (2016) which states that many students rely on YouTube to help solve learning problems.

Youtube can also be used as additional information and learning activities by students. Students can use YouTube to create, use and share learning videos that can contribute to the effectiveness and success of education in schools (Abbas & Qassim, 2020). Therefore, it can be concluded that watching YouTube videos accompanied by teachers can increase students' creativity.

Boholano & Cajés, (2021) States that social media such as Youtube can be an exciting learning method. It can also increase students' social interaction and understanding of learning. Accessibility accessible to students allows teachers to easily create tutorials and presentations and distribute them to students without any natural obstacles. This is also supported by research Ahmad, (2022) which states that students who like watching YouTube videos can increase their understanding of complex problem topics and listening skills. In other conditions, teachers can spend more time improving student learning materials that are more complex than just teaching concepts.

Youtube is not just a tool for entertainment but has developed to improve educational performance. Youtube videos are very effective because they can add to the dynamic essence of the subject, help transfer knowledge, and demonstrate complex procedures to explain complex concepts. So that students can improve their knowledge and proficiency in technical skills, they can look at youtube tutorials (Iftikhar et al., 2019). Therefore students can improve their academic understanding by taking advantage of video tutorials.

Youtube videos become interesting because students can learn and watch learning videos according to their will. As a result, YouTube offers an opportunity to maximize learning materials in an unlimited number and accordance with learning objectives. The most crucial criterion in controlling deviations from watching videos appears to be adjusting the learning material. A study by Abbas & Qassim, (2020) stated that Youtube videos are needed because they attract students' attention and provide a sense to develop students' mentality of creative thinking. Youtube also provides fun when learning

because it follows students' interests. This substantially impacts learning because it provides an inspiring and exciting atmosphere. Youtube can improve fundamental skills such as listening skills, the ability to increase vocabulary, the ability to improve learning outcomes, and self-improvement abilities (Listiani et al., 2021). Therefore, youtube videos can encourage students to feel happy when learning so that learning success can be realized.

The Effect of Treatment in Improving Mapping Skills in Class XII Social Sciences High School Students

Based on table 5, it is explained that the statistical calculation of the effect of the Cohen's d calculation is 1.762. This can be interpreted that there is a significant effect on the effectiveness of the treatment used in the experimental class. The integration of YouTube into teaching improves students' experiences of learning success and increases student activity (Buzetto-More, 2015). Youtube can be used for various purposes, including academic learning and information seeking (Moghavvemi et al., 2018). The study from the previously mentioned research shows that YouTube is an effective means to improve learning when the videos viewed are relevant to the learning topic. Educators can be encouraged to incorporate YouTube into learning by utilizing the platform as learning material.

Research from (Balbay & Kilis, 2017) states that students are very familiar with YouTube. Students watch videos for entertainment as well as to gain knowledge related to learning. Students are very facilitated when understanding the material by watching learning videos. Learning in the classroom, which tends to be monotonous, can be more varied with the presence of video supporting material that can be viewed on Youtube. In addition, students can also be given assignments to make discussions and learning materials that can be uploaded on YouTube as assessment material.

According to Karami (2019) and Klein & Taylor (2017), using Youtube videos in classroom learning can help students better understand the material being taught. In the

end, there is an increase in student grades and overall academic performance. Watching youtube videos and classroom learning can develop students' digital literacy and communication skills and increase students' enthusiasm for learning. Videos published on youtube can provide many benefits, especially skills instruction videos, which are presented innovatively and entertainingly for students. Therefore, teachers can use youtube videos to introduce learning, motivate students, explain material online or make learning entertaining when students are bored with learning in class.

CONCLUSION

This study uses a teacher-made learning activity instrument combined with youtube videos to improve mapping skills in class XII Social Sciences at NU Genteng high school. The conclusion of this study is as follows: The post-test score has an average value that is greater than the average pretest value, which indicates that the learning achievement of class XII social studies students at SMA NU Genteng has increased after treatment. (1) There is a significant difference between the student's pretest and post-test scores. The treatment material has a significant effect on improving students' academic achievement. (2) There is a significant effect on the effectiveness of the treatment used. This treatment is effective for improving students' academic results.

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