Jurnal Pendidikan

YouTube as a Media for Developing English Proficiency: Experiments on Elementary School Students in Indonesia

Septian Maulana¹, Mega Febriani Sya¹*, Annissa Mawardini¹, Ika Tri Yunianika²
¹Universitas Djuanda, Bogor, Indonesia
² University of Aberdeen, Scotland
*Corresponding Author : megafebrianisya@unida.ac.id

Abstract: Technology continues to develop so that it causes changes in the pattern of human life without exception, also in education. This technological advancement requires teachers to develop and adjust additional competencies, one of which is using new technology in the learning process. Learning media can be interpreted as learning process aids that include subject matter information. This study aims to determine whether there is an influence of the use of YouTube videos on improving students' English learning outcomes. The method used in this study is a quantitative approach with a type of Quasi Experiment with a form of nonequivalent control group design. This research uses data analysis techniques, namely descriptive statistical analysis, analysis prerequisite tests, hypothesis tests, and n-gain analysis. The results of the hypothesis test in this study obtained the sig value. (2-tailed) $0.000 < 0.05$. Thus, it can be concluded that Ha was accepted and Ho was rejected, this shows that the variables of YouTube video-based learning media have a significant effect on student English learning outcomes.

Keywords: learning media, YouTube, English learning outcomes

INTRODUCTION

Currently, the role of technology is especially important, and it can be used in various aspects of people's lives (Cachón-Zagalaz et al., 2020; D'Cunha et al., 2019). Technological developments in the 21st century is increasingly rapid, followed by the development of Human Resources (HR), which continues to increase (Aslamiah et al, 2020; Fang et al, 2020). The technology that is very easily felt by all people in the world is the internet, where the phenomenon of this technological development means there is no distance limit for communicating and interacting with each other using information from various regions of the world (Ozioko & Dahiya, 2022; Weidlich & Bastiaens, 2018).

Technology continues to develop, which causes changes in the pattern of human life and education. This technological advancement requires teachers to be able to develop and adjust additional competencies (Latorre-Cosculluela et al., 2021; Raj & Tomy, 2023), one of which is using modern technology in the learning process so that they can adapt technology as a medium that stimulates students to achieve learning goals. The way to eliminate boredom during learning is to apply technology as a medium or teaching material in an electronic format, which has a new appeal and can provide space and time

efficiency (Shadiev et al., 2020; Voogt & McKenney, 2017; Wibowo & Prastowo, 2023). Learning media is a tool that contains information as a medium that facilitates the learning process (Hasan et al., 2021; Weidlich & Bastiaens, 2018). According to Zayyadi et al (2017), learning media is a tool that makes it easy for students to understand problems in the learning process. Learning media is a tool to support and increase student learning motivation. In the process of implementing learning, teachers can use learning strategies or media. The teacher prepares learning media to fulfil all the learning process's needs and measure the extent to which students are capable (Lastrijanah et al., 2017; Phungsuk et al., 2017). The application of learning media has an urgency in improving the quality of the learning process, so it is expected to influence the improvement of learning outcomes (Batubara, 2020; Van Den Beemt et al., 2020).

Apart from the effective use of learning media, one other factor that can influence student learning motivation is the performance of the teacher itself. The role of the teacher as a facilitator in education, which is carried out formally in educational institutions such as schools, has a huge role and influence in achieving learning goals and student learning success (Fauzi & Mustika, 2022; Weidlich & Bastiaens, 2018). Simple technology-based learning media can utilize YouTube video-based learning media. YouTube learning media can be used to utilize digital technology (Abubakar & Muhammed, 2023; Kohler & Dietrich, 2021). In arousing enthusiasm for learning and facilitating student learning, currently, YouTube can be used as a support for the learning process. YouTube is a place for uploading various videos uploaded on the internet. YouTube is an internet website equipped with upload and video viewing features so that YouTube users can watch it.

Being in the 21st century and the times happening globally are essential for improving the quality of Human Resources (HR), not only focusing on technological developments but also on mastering the language used internationally, namely English (Sya et al., 2022). English is a common language, and many countries from all over the world use English as the main language of the country. It is important to learn English because it is used as an international language (Raj & Tomy, 2023; Sya et al., 2021). Active communication skills using English have become a necessity for professional success. Those who are not fluent in English will face difficulties and global developments where learners and students can use English.

The learning process is an inseparable series between students. In implementing learning, there is a two-way interaction between a learner or students and teachers. Sondakh & Sya (2022) in their research stated that the difficulty factor in learning English is caused by two things, namely factors originating from within the students (internal), including (1) student health, (2) student intellectual, (3) low learning desire, (4) low enthusiasm for learning, and factors originating from external include (1) constraints of friends during learning, (2) dislike of learning material, (3) the learning media used is not optimal, (4) the method used is not appropriate.

RESEARCH METHODS

The research method used is a Quasi-Experimental quantitative approach with a nonequivalent control group design (Sugiyono, 2016), as shown in Table 1.

Table 1. Research Design

	Pretest	Treatment	Posttest
Experiment	O_1	X	O_2
Control	O_3		O_4

Data collection techniques using instruments in the form of multiple-choice tests. The research instrument trial tested the validity using the product moment formula and

instrument reliability using the Cronbach alpha formula. Furthermore, the research instruments that have been tested and all test items declared valid are used as research test instruments and distributed to research respondents.

Research data collected is then analyzed using descriptive analysis as a description of the research object. The descriptive statistical analysis results include the mode, mean, standard deviation, maximum, and minimum values. The next step is to carry out analysis prerequisite tests consisting of normality and homogeneity tests, normality testing using Kolmogorov-Smirnov with decision-making criteria, namely if the significance value is <0.05, then it shows that the research data is not normally distributed, and if the result is a significance value> 0.05 then it shows that the research data is normally distributed. Homogeneity testing was done to determine if the samples used in the study had the same variance. If the two groups have the same two variances, the group is declared homogeneous. The criteria for planning for the homogeneity test are if the probability value shows < 0.05, it is stated that the research material does not have the same variance. If the probability value shows > 0.05, it can be stated that the research material has the same variance.

After the research data was carried out by the prerequisite analysis test, which stated that it was normally distributed and had the same (homogeneous) variance, the researcher carried out a hypothesis test using the t-test (t-test). Next, the researcher conducted a normalized gain test (N-Gain). This test was done to show the difference between the pretest results and posttest so that it could increase student learning outcomes.

RESULTS AND DISCUSSION

The purpose of this study is to test whether the use of YouTube video-based learning media influences students' English learning outcomes in grade five primary school. In this study, there were two comparison classes, namely those given learning treatment with the help of video-based learning media, YouTube, which is called the experimental class and the class with learning using expository learning or learning as usual, which is then referred to as the control class.

Data analysis was carried out after all respondents' answers were collected, and the data was processed using the SPPS version 24 application. The descriptive statistics are shown in Table 2.

Table 2. Statistical Descriptive Analysis

Descriptive Statistics			
Valid N (listwise)		**Mean**	**Std. Deviation**
Pretest control	25	5,54	1,334
Posttest control	25	5,16	1,179
Pretest experiment	25	10	12
Posttest experiment	25	8,84	1,405

The average pretest score for the experimental class was 5.16, while the posttest average score after the treatment using YouTube video-based learning media obtained an average score of 8.84. Then, the average value in the control class is 5.54, while the posttest average value after the treatment with expository learning gets a value of 7.12. The comparison of learning outcomes scores measured using the posttest between the control class using textbook media and the experimental class using YouTube video-based learning media is as follows:

Tabel 3. Comparison Average *Posttest*

Control class	Experiment class
70,12	80,84

Regarding Table 3, it can be concluded that there is a difference in scores in the English learning outcomes of the control class, which implements the expository learning method, compared to the experimental class, which uses YouTube video-based learning media, which is equal to 10.72. Based on this average comparison, the experimental class using YouTube video learning media received significant scores compared to the control class using expository learning media.

After the research data was tested for statistical descriptive analysis, the researcher conducted a prerequisite analysis test, which included normality and homogeneity tests. The normality test is done to find out if the data collected and analyzed is normally distributed. The normality test in this study uses the help of the SPSS application version 24. The decision-making criteria if the data comes from the population is said to be normal if the significance level is > 0.05. The normality test results that have been carried out obtain a significance value from the control class, namely 0.290 > 0.05, and a significance value from the experimental class, namely 0.378 > 0.05. Thus, it can be stated that the research data is normally distributed.

A homogeneity test is carried out to measure data from populations that have the same (homogeneous) or unequal (non-homogeneous) variants. The homogeneous test was done with the pretest values for the control and experimental classes. The homogeneity test decision-making is considered homogeneous if the significance level is > 0.05. The homogeneity test results that have been tested obtain a sig. 0.426 > 0.05 means that the research data tested can be said to have the same variance.

The hypothesis test was carried out to measure the dissimilarity of the results of the application of learning in the control class, which carried out expository learning, and the experimental class carried out learning activities using the help of YouTube video media. The data analysis process used the t-test on the SPSS version 24 application. This study used an independent sample t-test hypothesis test with decision-making criteria. If the significance value (2-tailed) <0.05, it can be concluded that Ho is rejected, and Ha is accepted. The following are the results of the independent sample t-test, namely as in Table 4.

Table 4. Independent Sample Test result

	Levene's Test for Equality of Variances		t-test for Equality of Means					95% Confidence Interval of the Difference	
	F	Sig.	t	df	Sig. (2-tailed)	Mean Difference	Std. Error Difference	Lower	Upper
Equal variances assumed	,004	,948	-4,45	49	,000	-1,725	,388	-2,504	-,945
Equal variances not assumed			-4,44	48,8	,000	-1,725	,388	-2,505	-,944

Based on the data from the hypothesis test in Table 4, the significance value (2-tailed) is <0.05. Thus, it can be concluded that Ha is accepted, and Ho is rejected. Thus, it

can be concluded that the influencing variable, namely YouTube video-based learning media, has a significant effect on the results. Learning English for grade 5 students at primary school.

Research at primary school Megamendung District Kab. Bogor. The X variable in this study is the use of YouTube video-based learning media, and the Y variable is the result of learning English students. The internal data collection instrument used by the researcher was observation and testing, with the population being all fifth-grade students at primary school. The initial step of field research was that the researcher gave a pretest before the sample students received treatment, which aimed to measure students' initial abilities after the initial test was carried out. Students were then given treatment according to their class; the control class was given expository learning (learning as usual) using textbooks and blackboards, and the experimental class was given treatment using tools as learning aids based on YouTube videos in the learning process. The results of pretest calculations using the help of the SPSS version 24 application get an average score of the pretest results for the control class, which is 5.54 and for the experimental class, which is 5.16.

Furthermore, after the comparison of the pretest average scores in the two classes, the researcher treated the learning to each different class. The control class carried out learning using textbooks and blackboard learning media, while the experimental class taught using YouTube video-based learning media. At the last meeting, the researcher gave students a posttest to measure the significance level of the two classes with different treatments. The results of posttest calculations were analyzed using the SPSS version 24 application with an average calculated score for the control class, which was 7.12, while the average score for the experimental class was 8.84.

Based on the data from the hypothesis test results in Table 4 obtained from the research results processed through the SPPS version 24 application, the significance value in the hypothesis test using the independent sample t-test is <0.05, then the decision is made; namely, Ho is rejected, and Ha is accepted with the conclusion that there is the influence of YouTube video-based learning media on improving English learning outcomes for fifth-grade students at primary school. The results of previous research conducted by Lestari & Apoko (2022) in a Journal Article entitled "Effectiveness of Video Animation via YouTube on Interest in Learning Indonesian in Elementary School Students" with the results of the study, namely the learning process carried out with the help of animated videos from YouTube as a learning medium in class II SD Barunawati II can have a significant influence on student learning interest in Indonesian language subjects. Based on the results of the questionnaire filled out by students (experimental class) who were given treatment in learning with the help of animated videos from YouTube, they tended to get superior scores when compared to students in the comparison class (control class) who were not given the same learning treatment as the experimental class.

According to Hamid et al (2020) learning media has benefits, including: 1) the learning process that occurs between students and students will be helped by the presence of media, and material that cannot be verbally conveyed can be supported by using appropriate learning media. 2) Learning media can raise the willingness and enthusiasm of students to take part in learning and raise questions of student curiosity about learning material. 3) provide convenience to the limitations that exist during the learning process, such as limitations of space, time, and energy. The role of learning media is to foster students' positive attitudes regarding the material presented during the learning process, which becomes more interesting (Firmadani, 2020).

Learning media serves for learning purposes where the information contained in the media must involve learners both in the mind or mentally or in the form of actual activities so that learning can occur (Hasan et al., 2021). Learning media that teachers use is beneficial for the learning process between educators and students. It can also increase

the interest and motivation of students in the learning process, curiosity and enthusiasm of students increase and interaction between students, educators, and learning resources can occur so that it can overcome the limitations of space, time, energy, and sensory. Using YouTube video-based learning media in this study stimulated students' interest in learning to focus more on completing the learning material. Students today are more easily interested in digital things, born in an era where all digital-based activities make students familiar with technology; this happens inseparably in the learning process.

CONCLUSION

The results of this study conclude that it is essential to use learning media that can increase student interest in learning and help the learning process run smoothly. The learning media used in this study is YouTube video-based learning media with the help of projector. Based on the results of research data processing in the form of a pretest and posttest in the control class and experimental class with an independent t-test, the result is the sig. (2 tailed) < 0.05, so it can be concluded that Ha is accepted, and Ho is rejected. This shows that the YouTube video-based learning media variable significantly affects the English learning outcomes of grade 5 students at primary school. This study concludes that YouTube video-based learning media influences English learning outcomes in classes that are used as experiments in this class.

REFERENCES

Abubakar, H., & Muhammed, H. B. (2023). A systematic literature review on teaching teachers pedagogy through YouTube video technology. Journal of Digital Educational Technology, 3(1), ep2301. https://doi.org/10.30935/jdet/12839

Aslamiah, A., Abbas, E. W., & Mutiani, M. (2021). 21st-Century Skills and Social Studies Education. *The Innovation of Social Studies Journal*, *2*(2), 82-92. https://doi.org/10.20527/iis.v2i2.3066

Batubara, H. H. (2020). Media Pembelajaran Efektif - Google Books. In Fatawa Publishing (Issue October). FATAWA PUBLISHING.

Cachón-Zagalaz, J., Sánchez-Zafra, M., Sanabrias-Moreno, D., González-Valero, G., Lara-Sánchez, A. J., & Zagalaz-Sánchez, M. L. (2020). Systematic Review of the Literature About the Effects of the COVID-19 Pandemic on the Lives of School Children. Frontiers in Psychology, 11. https://doi.org/10.3389/fpsyg.2020.569348

D'Cunha, N. M., Nguyen, D., Naumovski, N., McKune, A. J., Kellett, J., Georgousopoulou, E. N., Frost, J., & Isbel, S. (2019). A Mini-Review of Virtual Reality-Based Interventions to Promote Well-Being for People Living with Dementia and Mild Cognitive Impairment. Gerontology, 65(4), 430–440. https://doi.org/10.1159/000500040

Fang, E. F., Xie, C., Schenkel, J. A., Wu, C., Long, Q., Cui, H., ... & Woo, J. (2020). A research agenda for ageing in China in the 21st century: Focusing on basic and translational research, long-term care, policy and social networks. *Ageing research reviews*, *64*, 101174. https://doi.org/10.1016/j.arr.2020.101174

Fauzi, S. A., & Mustika, D. (2022). Peran guru sebagai fasilitator dalam pembelajaran di kelas V sekolah dasar. Jurnal Pendidikan Dan Konseling, 4(3), 2492–2500. https://doi.org/10.31004/jpdk.v4i3.5113

Firmadani, F. (2020). Media Pembelajaran Berbasis Teknologi Sebagai Inovasi Pembelajaran Era Revolusi Industri 4.0. Prosiding Konferensi Pendidikan Nasional, 2(1), 93–97.

Hamid, M. A., Ramadhani, R., Juliana, M., Safitri, M., Jamaludin, M. M., & Simarmata, J.

(2020). Media Pembelajaran. Yayasan Kita Menulis.

Hasan, M., Milawati, Darodjat, Harahap, T. K., Tahrim, T., Anwari, A. M., Rahmat, A., Masdiana, & Indra P, I. M. (2021). Media Pembelajaran (M. P. Dr. Fatma Sukmawati (ed.)). TAHTA MEDIA GRUP.

Kohler, S., & Dietrich, T. C. (2021). Potentials and Limitations of Educational Videos on YouTube for Science Communication. Frontiers in Communication, 6. https://doi.org/10.3389/fcomm.2021.581302

Lastrijanah, L., Prasetyo, T., & Mawardini, A. (2017). Pengaruh Media Pembelajaran Geoboard Terhadap Hasil Belajar Siswa. Didaktika Tauhidi: Jurnal Pendidikan Guru Sekolah Dasar, 4(2), 87. https://doi.org/10.30997/dt.v4i2.895

Latorre-Cosculluela, C., Suárez, C., Quiroga, S., Sobradiel-Sierra, N., Lozano-Blasco, R., & Rodríguez-Martínez, A. (2021). Flipped Classroom model before and during COVID-19: using technology to develop 21st century skills. Interactive Technology and Smart Education, 18(2), 189–204. https://doi.org/10.1108/ITSE-08-2020-0137

Lestari, D. A., & Apoko, T. W. (2022). Efektivitas Video Animasi melalui YouTube terhadap Minat Belajar Bahasa Indonesia pada Siswa Sekolah Dasar. Jurnal Basicedu, 6(4), 5953–5960. https://doi.org/https://doi.org/10.31004/basicedu.v6i4.3180

Nurul Audie. (2019). Peran Media Pembelajaran Meningkatkan Hasil Belajar. Posiding Seminar Nasional Pendidikan FKIP, 2(1), 586–595.

Ozioko, O., & Dahiya, R. (2022). Smart Tactile Gloves for Haptic Interaction, Communication, and Rehabilitation. Advanced Intelligent Systems, 4(2). https://doi.org/10.1002/aisy.202100091

Phungsuk, R., Viriyavejakul, C., & Ratanaolarn, T. (2017). Development of a problem-based learning model via a virtual learning environment. Kasetsart Journal of Social Sciences, 38(3), 297–306. https://doi.org/10.1016/j.kjss.2017.01.001

Raj, A., & Tomy, P. (2023). Mobile technology as a dependable alternative to language labs and to improve listening skills. International Journal of English Language and Literature Studies, 12(1), 17–32. https://doi.org/10.55493/5019.v12i1.4702

Shadiev, R., Wu, T. T., & Huang, Y. M. (2020). Using image-to-text recognition technology to facilitate vocabulary acquisition in authentic contexts. ReCALL, 32(2), 195–212. https://doi.org/10.1017/S0958344020000038

Sondakh, D. C., & Sya, M. F. (2022). Kesulitan Pembelajaran Kosakata Bahasa Inggris Tingkat Sekolah Dasar. 1, 9–10. https://doi.org/https://doi.org/10.30997/karimahtauhid.v1i3.7818

Sugiyono. (2016). Metode Penelitian Kuantitatif, Kualitatif dan R&D. ALFABETA CV.

Sya, M. F., Adri, H. T., Kholik, A., Sudjani, D. H., Latifah, Z. K., & Uslan. (2021). Indonesian Learning: Towards the Academic Achievement of Communicative Competence. Indonesian Journal of Social Research (IJSR), 3(3), 183–189. https://doi.org/10.30997/ijsr.v3i3.152

Sya, M. F., Anoegrajekti, N., Dewanti, R., & Isnawan, B. H. (2022). Exploring the Educational Value of Indo-Harry Potter to Design Foreign Language Learning Methods and Techniques. International Journal of Learning, Teaching and Educational Research, 21(10), 341–361. https://doi.org/10.26803/ijlter.21.10.19

Van Den Beemt, A., Thurlings, M., & Willems, M. (2020). Towards an understanding of social media use in the classroom: a literature review. Technology, Pedagogy and Education, 29(1), 35–55. https://doi.org/10.1080/1475939X.2019.1695657

Voogt, J., & McKenney, S. (2017). TPACK in teacher education: are we preparing teachers to use technology for early literacy? Technology, Pedagogy and Education, 26(1), 69–83. https://doi.org/10.1080/1475939X.2016.1174730

Weidlich, J., & Bastiaens, T. J. (2018). Technology matters - The impact of transactional distance on satisfaction in online distance learning. International Review of Research in Open and Distance Learning, 19(3), 222–242.

https://doi.org/10.19173/irrodl.v19i3.3417

Wibowo, Y. R., & Prastowo, A. (2023). Tantangan Pembelajaran Tematik dalam Jaringan dengan Model Website Berbasis Youtube di Sekolah Dasar. Jurnal Pendidikan, 24(1), 1–12. https://doi.org/10.33830/jp.v24i1.3237.2023

Zayyadi, M., Supardi, L., & Misriyana, S. (2017). Pemanfaatan Teknologi Komputer Sebagai Media Pembelajaran Pada Guru Matematika. Jurnal Pengabdian Masyarakat Borneo, 1(2), 25. https://doi.org/10.35334/jpmb.v1i2.298