
The Effect of Using the Youtube Application on Student Learning Activity and Performance on Two-Variable Linear Equations

Nurjannah^{1*}, Laili Habibah Pasaribu², Sakinah Ubudiyah Siregar³

^{1,2,3}Pendidikan Matematika FKIP Universitas Labuhanbatu

e-mail: nurjannah02524@gmail.com, laili.habibah.pasaribu@gmail.com, hafizahsiregar88@gmail.com

Article Info

Article history:

Received : December 11, 2024

Revised : January 10, 2025

Accepted : January 21, 2025

Available online : January 31, 2025

<https://doi.org/10.33541/edumatsains.v9i2.6399>

Abstract

This study aims to determine whether there is an effect of YouTube on student learning activeness and performance in class VIII MTS Tarbiyah Islamiyah Ulumahuam students. This activity was carried out offline. The research subjects were MTS Tarbiyah Islamiyah Ulumahuam students and the sample used amounted to 50 students where 25 participants for the experimental class and 25 participants for the control class. The research method chosen in this study is quantitative. Data collection was carried out by means of observation, and questionnaires. The instrument used is a questionnaire of student activeness and learning performance using YouTube as media and documentation. The analysis techniques used are Normality, Homogeneity, and Hypothesis tests. Based on the results of the research conducted, there is an effect of YouTube on the activeness and performance of student learning with a learning model using YouTube seen from the average value of the questionnaire of student learning activeness and performance, namely with a significant value of 0.000. For hypothesis testing using one-way anova test with significant results of 0.000

Keywords: Learning model, youtube, activeness and learning performance

1. Introduction

According to Noprastiyaning & Zainal (2019) Mathematics is one of the subjects closest to everyday life and plays a very important role in students' lives, both directly and indirectly. A good understanding of mathematics helps students learn logic, problem solving, and critical thinking in a variety of everyday contexts according to (Hijrah et al., 2024). One of the basic objectives of learning mathematics is to determine student learning activeness and performance. Learning activeness consists of the word "active" and the word "learning". The word activeness comes from the basic word active which gets the suffix ke-an so that it becomes activeness, which means activity or busyness.

Learning activeness means an effort or activity carried out by students by actively learning according to (Hasanah & Himami, 2021), Learning activeness is a process in which we are all involved in the learning process. Not just attending class or doing assignments, but we are also actively involved in the process of discovering and understanding something.



Students' active participation in the learning process is an important factor that supports their understanding of various problems or situations that arise during learning activities. Student activity is a basic element that really determines the success of learning, because through this involvement, students can more easily understand and internalize the material being taught. (Kanza et al., 2020).

Student learning activeness is the student's effort to participate in learning activities. Learning activeness can be shown through student involvement in seeking or obtaining information from sources such as teachers, books, and other friends. It is expected that students will be better able to recognize and develop all their abilities. (Putri et al., 2019).

Learning activeness is a state, behavior, or activity carried out by students during the learning process. Active learning can be seen from student participation, such as asking questions, completing assignments, answering teacher questions, collaborating with peers, and carrying out responsibility for the assignments received. Teachers can systematically improve their learning system and activate student engagement through student activities. These activities can also help students in critical thinking and solving everyday problems. (Muhamad Azin & Eko Subianto, 2023).

Student learning activeness is very important for the learning process. This is due to the fact that students are the main actors in the educational process. Students act as actors, researchers, and recipients of knowledge in the educational process. The results and outcomes of human resources (HR), namely students, determine the success of the educational process. Therefore, it is very important for students to be actively involved in learning activities. Students' active involvement in the learning process includes physical involvement in the form of certain actions or treatments, but also active involvement mentally, emotionally, and mindfully through the process of analyzing, comparing, and appreciating during the learning process. (Prayitno, 2022).

Learning activeness refers to student participation in each stage of learning. This is reflected in the way students interact in activities such as discussing, listening to explanations, solving problems, completing assignments, compiling reports, and presenting the results of their work. (Pranoto, 2020). Student activeness is basically the process of student interaction with the teacher, activities carried out by students, and learning experiences felt by teachers and students during the learning process (Indrayani, Ibrahim and Suroyo, 2022) quoted from the journal (Erina Hannawita Br Sembiring & Tanti Listiani, 2023).

According to (Khoiriyah, 2015), indicators of student activity include several aspects, namely paying attention to explanations from the teacher, asking questions, providing answers to questions, participating in group discussions, completing assignments or problems, listening to presentations from friends, and recording summaries of lesson material.

Meanwhile, learning performance is the result achieved by a student in the learning process. These results can be in the form of knowledge, skills, attitudes, and values obtained by students through the learning process. Student performance is a description of students' ability to complete specific tasks given by the teacher and can be measured based on predetermined criteria. To assess student performance, Student Worksheets are used as an instrument that is assessed with a performance



assessment gradation rubric. In learning mathematics, there must be a link between student activeness and learning performance.

Student learning performance is the result or achievement obtained by students after going through the learning process. It is an indicator of how effectively students absorb subject matter and turn it into knowledge and skills that can be applied. Student learning performance is a reflection of how successful a student is in mastering the subject matter that has been taught. It is not just about how much students memorize, but also about the extent to which students are able to understand concepts, apply knowledge, and develop relevant skills.

Student learning performance is the result or achievement obtained by students after going through the learning process. It is an indicator of how effectively students absorb subject matter and turn it into knowledge and skills that can be applied. Student learning performance is a reflection of how successful a student is in mastering the subject matter that has been taught. It is not just about how much students memorize, but also about the extent to which students are able to understand concepts, apply knowledge, and develop relevant skills.

According to Robbins (2016: 260) performance indicators are tools used to measure the extent to which employees have achieved their work results. Several aspects that are often used as measures in evaluating employee performance include (1) quality of work results, (2) amount of work completed, (3) compliance with time, (4) level of efficiency, and (5) ability to work independently. (Tarmizi & Hutasuhut, 2021).

Based on the above understanding, the researcher takes independence as an indicator of student learning performance which will be used as a research variable that is still related to student learning activeness, because independence is a very relevant learning performance indicator to reflect students' ability to learn actively, responsibly, and independently. High independence will have a positive impact on student achievement and prepare them for the future.

Learning independence is not a skill that automatically develops with age. Instead, it must be taught and nurtured by students. The goal is for students to have the ability to interact with mathematical concepts in an active and constructive way. (Marni & Pasaribu, 2021).

Several studies have shown that there is a positive and significant relationship between student engagement and performance in mathematics. That is, the more active students are in learning mathematics, the higher their performance. This can be explained by several reasons: Students who are active understand the subject matter better: When students are active in learning, they are more focused and engaged in the learning process. This makes it easier for them to understand the subject matter and remember the information better.

Teachers are required to know, understand, choose and apply learning models that are considered effective so that they can create a conducive classroom atmosphere in supporting the optimal learning process. One of the learning models that can facilitate these activities is using the Youtube application. YouTube, founded in February 2005 by three former PayPal employees, is a platform for uploading, watching and sharing videos, with a variety of content such as films, TV shows, music, vlogs and educational material, presented using Adobe Flash Video and HTML5 technology .



YouTube is the right and fast application to understand mathematics learning, YouTube application has many advantages that can be utilized to improve the quality of mathematics learning. By utilizing YouTube creatively and effectively, teachers and students can create a more interesting, meaningful, and productive learning experience. The use of YouTube as a learning tool aims to provide an interesting, fun and interactive learning experience for students. This platform allows learning to take place flexibly, both in the classroom and outside the classroom, as long as the device is connected to the internet. YouTube can be used without time or space limitations, so students can access the material at any time. This writing aims to describe: 1) strategies for using YouTube as a learning medium, and 2) the effectiveness of YouTube in supporting the teaching and learning process. (Arham, 2020).

Using the right learning media is essential for learning that aims to improve students' understanding of certain subjects. YouTube is an audio-visual media that students often use because it looks interesting and not boring. This application can be used as an interesting learning media (Nurfaidzin Ihsan, 2022). Kartika explained that the purpose of using YouTube as a learning media is to make learning more interesting, fun, and interactive. (Suwanto et al., 2021).

YouTube application as learning media and YouTube application as math learning media have the ability to create a more active and creative learning atmosphere for students. Then students can channel all ideas freely, which makes learning more fun and entertaining. help students understand learning, improve student performance, and motivate students to participate in learning, increase student confidence according to (Yusriani et al., 2022). According to Baihaqi et al. (2020), YouTube is a website used to disseminate information. It helps students develop user skills and enhance learning in videos. It makes learning easier and develops skills, and develops educators' professionals. (Mutoharoh Tryas, 2022).

YouTube is used as an online learning medium for a number of online learning activities due to its features and advantages, which allow it to sustain learning objectives. In addition, the fact that most people of all ages have YouTube accounts allows teachers, lecturers and educational facilitators to use YouTube apps as an online learning medium. Other studies have also found that YouTube has a positive effect on students' learning achievement and encourages them to learn specific topics. (SUharto, R. P. (2022).

In the teaching and learning process, there are several practical benefits of learning media: they can clarify the way messages and information are conveyed, which accelerates and improves the learning process and results; they can increase and direct students' attention to create motivation to learn; and they can help students interact more directly with others and with their environment. (Nudini & Wardana, 2023).

In this modern era, humans do not have to meet face-to-face to complete their various activities, one of which is activities in the field of education. Social media can be used as an alternative to help students learn. YouTube is one of the most popular social media in the community. YouTube audio video tools can be used as learning media (Karami et al., 2021). From the above understanding, this research aims to increase student activeness and learning performance using the Youtube application. Because learning using the YouTube application can make it easier and



easier to understand and more interesting or not easily bored. YouTube provides additional learning resources and diverse references for students who want to deepen their knowledge in mathematics.

2. Methods

According to Sugiyono (2011) the quantitative approach in research is based on the philosophy of positivism, which aims to analyze data from a particular population or sample using research tools in the data collection process. The data analysis process is carried out using statistical or quantitative methods, with the main aim of testing previously established hypotheses. This approach focuses on measuring and generalizing research results based on structured and objective data. (Hidayat & Susanto, 2022). This research involved 50 students in classes VIII-A and VIII-B who were divided into two groups, each consisting of 25 students for the experimental and control classes. Data was collected using a questionnaire to assess the influence of YouTube on activities and learning outcomes, The questionnaire in this study results serve to provide information to the reader related to the answers of the respondents, and the use of this questionnaire to obtain data on the use of learning media. The data collected in this study are those related to the influence of the use of media in learning. The type of questionnaire used in this study is a direct questionnaire, which is in the form of a Likert scale with closed questions, namely with the answers to the questions asked already available.

This type of research is quantitative research. In this study there are 3 variables, namely one independent variable (free), namely X1 (YouTube application). The two dependent variables are Y1 (learning activeness) and Y2 (learning performance). This study uses two main variables, namely student learning activeness and student learning performance, with predetermined indicators to measure the effect of using the YouTube application as a learning medium.

Table 1.liveliness observation results

Indicator	Indicator	Category
Paying attention to the teacher's explanation	90%	High
Asking questions	90%	High
Answering questions	93%	High
Discussing in groups	87%	High
Solving problems	86%	High
Paying attention to friends' presentations	93%	High
Recording a summary of the lesson material	94%	High

Table 2.performance observation results

Indicator	Indicator	Kategori
-----------	-----------	----------



Independence	88%	High
--------------	-----	------

From the results of the researcher's observation table on the effect of using the Youtube application on student activeness and learning performance with a questionnaire instrument of student activeness and learning performance, it has shown the effect of learning using youtube on student activeness and learning performance. This is evidenced in the results of the activeness questionnaire in class VIII A which used the learning model using YouTube, indicator 1, namely paying attention to the teacher's explanation, obtained a percentage of 90%, indicator 2, namely asking questions obtained a percentage of 90%, indicator 3, namely answering questions obtained a percentage of 93%, indicator 4, namely discussing in groups obtained a percentage of 87%, indicator 5, namely solving problems obtained a presentation of 86%, indicator 6, namely paying attention to a friend's presentation obtained a presentation of 93%, and indicator 7, namely recording a summary of the subject matter obtained a presentation of 94%. This is also evidenced in the results of the student learning activeness questionnaire in class VIII A, indicator 1, namely independence obtained a presentation of 88%.

INSTRUMENT TEST

Before the questionnaire was given to respondents, the instrument was tested to ensure its validity and reliability. This stage aims to ensure that the instruments used produce accurate and reliable data. In this research, the instrument reliability value has been calculated with the help of SPSS version 22 software. The results of the instrument test analysis carried out using SPSS 22 are presented in Table 1 below.

Table 3. Reliability Test Results of Research Data

Variables	<i>Cronbach's Alpha</i>	Description
Learning activeness	0,925	Reliable
Learning performance	0,931	Reliable

From the output table of the questionnaire statement reliability test for activeness and performance, it can be seen that the Cronbach's Alpha value or if $r_{count} > r_{table}$ is $0.925 > 0.60$ for activeness, while for performance it can be seen that the Cronbach's Alpha value or if $r_{count} > r_{table}$ is $0.931 > 0.60$ so that the 40 questionnaire statements are declared reliable. The steps to test the reliability of the questionnaire statement using SPSS 22.0

3. Result and Discussion

1. NORMALITY TEST



This research collects data through a questionnaire containing statements regarding student activity and their learning performance.

Normality Test Output of Creativity Questionnaire Results.

The following below are the results of calculating the normality of the research instrument data data using SPSS 22.0.

Table 4. Normality Test

Results	Class	Kolmogorov-Smirnov ^a			Shapiro-Wilk		
		Statistic	df	Sig.	Statistic	Df	Sig.
	Activeness VIII A	.159	25	.101	.892	25	.013
	Activeness VIII B	.124	25	.200*	.953	25	.286
	Performance VIII A	.157	25	.115	.895	25	.014
	Performance VIII B	.119	25	.200*	.976	25	.796

The analysis results show that both variables have a normal distribution. In the activity variable, class VIII-A has a significance value of 0.13 which is greater than 0.05, while class VIII-B has a significance value of 0.289 which is also greater than 0.05. For the learning achievement variable, class VIII-A shows a normal distribution with a significance value of 0.14 > 0.05, while class VIII-B has a significance value of 0.796 > 0.05, which confirms that the data is normally distributed.

2. HOMOGENEITY TEST

Homogeneity test of student learning performance and activeness questionnaire results

The homogeneity test was carried out using the same research data instruments as in the previous normality test. This analysis was carried out with the help of SPSS version 22.0 software, and the calculation results are presented as follows.

Homogeneity Test of Research Instruments Results of liveliness and performance questionnaires.

Table 5. Test of Homogeneity of Variance



		Levene Statistic	df1	df2	Sig.
Liveliness and Performance	Based on Mean	.061	1	48	.806
	Based on Median	.026	1	48	.872
	Based on Median and with adjusted df	.026	1	47.672	.872
	Based on trimmed mean	.058	1	48	.811

The results of the homogeneity test on the questionnaire data show a significance value of 0.806, which is greater than 0.05, so the data is declared homogeneous. Thus, the variance between the experimental class and the control class in the application of YouTube-based learning is uniform, so the data meets the requirements for hypothesis testing.

3. HYPOTHESIS TEST

After carrying out normality and homogeneity tests, the next stage is hypothesis testing using the one-way ANOVA method. This test aims to evaluate the effect of the project-based learning model on increasing student creativity in number pattern material, as well as determining whether the hypothesis is accepted or rejected.

Table 6. Activity

Model		Sum of Squares	Df	Mean Square	F	Sig.
1	Regression	835.452	1	835.452	121.934	.000 ^b
	Residual	157.588	23	6.852		
	Total	993.040	24			

The results of hypothesis testing using ANOVA show that the variables of student activity and learning performance have a significance value of 0.00 which meets the criteria of $0.00 \leq 0.05$. Therefore, H_0 is rejected and H_a is accepted, which indicates that there is a significant influence on student activity in learning using a YouTube-based model. Based on the analysis results table, the significance value of the activeness variable is $0.000 < 0.05$, strengthening the conclusion that the use of the YouTube learning model has a real impact on increasing student activity.

Table 7. Performance

Model		Sum of Squares	Df	Mean Square	F	Sig.
1	Regression	729.006	1	729.006	29.456	.000 ^b
	Residual	569.234	23	24.749		



Total	1298.240	24
-------	----------	----

Based on the results of analysis using ANOVA, a significance value of 0.00 was obtained for the student activity and learning performance variables, which was smaller than 0.05, so H₀ was rejected and H_a was accepted. These results indicate that the application of a YouTube-based learning model has a significant influence in increasing student activity and learning outcomes. In other words, the use of YouTube as a learning medium has proven to be effective in supporting increased student learning activity and performance.

4. Conclusion

Research conducted on students in classes VIII A and VIII B at MTS Tarbiyah Islamiyah Ulumahuam shows that the use of a YouTube-based learning model has a positive impact on student activities and learning outcomes. The average questionnaire results show a significant effect with a significance value of 0.000. The One-Way ANOVA test also produces a value of 0.000, smaller than 0.05, so H₀ is rejected. Thus, the application of YouTube as a learning medium has proven to be effective in increasing student activity and learning outcomes in class.

This study aims to measure the effect of using the YouTube application on student learning activeness and student learning performance. The following are the results obtained based on the indicators of each variable: Student Learning Activity, Student learning activity is measured using several indicators that show their active participation in the learning process. Based on the questionnaire results and data analysis: Paying Attention to Teacher's Explanation: Students in the experimental class showed a significant increase in paying attention to the teacher's explanation compared to the control class. This can be seen from the higher average value of the questionnaire score on this indicator. Asking Questions: Students in the experimental class were more active in asking questions during learning using YouTube media. The average score on this indicator shows an increase of 20% compared to the control class. Answering Teacher's Questions : Student participation in answering teacher's questions increased significantly. YouTube media helps students understand the material better, so they are more confident to give answers. Participating in Group Discussion : Students in the experimental class were more often involved in group discussions than the control class. This indicator scored high because students found it easier to understand the material through YouTube videos. Completing Tasks or Problems: Students' ability to complete tasks showed a significant increase, supported by the flexibility of accessing material on YouTube which allowed students to study independently outside of class. Recording Material Summary: This indicator showed significant improvement in the experimental class. Students felt more motivated to record summaries as the YouTube videos provided interesting visual explanations. And for student learning performance, it shows that students become more independent in learning. They are able to search for additional information and complete tasks without relying too much on the teacher.



5. References

- Arham, M. (2020). Efektivitas Penggunaan Youtube Sebagai Media Pembelajaran. *Akademia Education*, 1–13.
- Erina Hannawita Br Sembiring, & Tanti Listiani. (2023). Game Based Learning Berbantuan Kahoot! dalam Mendorong Keaktifan Siswa pada Pembelajaran Matematika. *GAUSS: Jurnal Pendidikan Matematika*, 6(1), 26–40. <https://doi.org/10.30656/gauss.v6i1.5708>
- Hasanah, Z., & Himami, A. S. (2021). Model Pembelajaran Kooperatif Dalam Menumbuhkan Keaktifan Belajar Siswa. *Irsyaduna: Jurnal Studi Kemahasiswaan*, 1(1), 1–13. <https://doi.org/10.54437/irsyaduna.v1i1.236>
- Hidayat, I., & Susanto, A. H. (2022). Pengaruh Kompensasi Dan Kerjasama Tim Terhadap Loyalitas Karyawan Mnc Studios Departement Traffic 3Tv (Mnctv, Gtv, Dan Rcti). *Jurnal Riset Manajemen Dan Akuntansi*, 2(3), 68–76. <https://doi.org/10.55606/jurima.v2i3.765>
- Hijrah, N., Julianti, E., & Labuhanbatu, U. (2024). *Jurnal Ilmu Pendidikan Progresif UPAYA MENINGKATKAN MINAT BELAJAR MATEMATIKA SISWA*. 8, 35–42.
- Kanza, N. R. F., Lesmono, A. D., & Widodo, H. M. (2020). Analisis Keaktifan Belajar Siswa Menggunakan Model Project Based Learning Dengan Pendekatan Stem Pada Pembelajaran Fisika Materi Elastisitas Di Kelas Xi Mipa 5 Sma Negeri 2 Jember. *Jurnal Pembelajaran Fisika*, 9(2), 71. <https://doi.org/10.19184/jpf.v9i1.17955>
- Karami, V. E., Rachmayanti, U. Y., & Rif'ah, I. (2021). Penggunaan Aplikasi Berbasis Audio Visual (Youtube dan Tiktok) Sebagai Media Pembelajaran Bahasa Arab. *Seminar Nasional Bahasa Arab Mahasiswa V Tahun 2021*, 5, 378–388. <http://prosiding.arabum.com/index.php/semnasbama/article/view/810>
- Khoiriyah, A. (2015). Peningkatan Hasil Belajar Dan Keaktifan Siswa Pada Mata Pelajaran Keterampilan Komputer Dan Pengelolaan Informasi (Kkpi) Melalui Model Pembelajaran Problem Based Learning (Pbl) Kelas Xi Tkj Di Smk Negeri 1 Sine. https://eprints.uny.ac.id/29196/1/1520241022_AFIFATUL_KHOIRIYAH.pdf
- Marni, & Pasaribu, L. H. (2021). Peningkatkan Kemampuan Berpikir Kreatif dan Kemandirian Siswa Melalui Pembelajaran Matematika Realistik. *Jurnal Cendekia: Jurnal Pendidikan Matematika*, 05(02), 1902. <https://j-cup.org/index.php/cendekia/article/view/621>
- Muhamad Azin, & Eko Subianto. (2023). Penerapan Metode Role Playing Mata Pelajaran PAI dalam Meningkatkan Keaktifan Belajar Siswa. *Jurnal Riset Pendidikan Agama Islam*, 113–120. <https://doi.org/10.29313/jrpai.v3i2.2978>
- Mutoharoh Tryas. (2022). Pemanfaatan Aplikasi Youtube untuk Media Pembelajaran. *Jubah Raja (Jurnal Bahasa, Sastra, Dan Pengajaran)*, 1(November), 97–102.
- Nudini, S., & Wardana, D. (2023). Pemanfaatan Youtube Sebagai Media Pembelajaran untuk Meningkatkan Kemampuan Berfikir Tingkat Tinggi Pada Mata Pelajaran Bahasa Indonesia Siswa Kelas 4. *Jurnal Ilmiah Dan Pendidikan Dasar*, 8(2), 3209–3218.
- Nurfaidzin Ihsan, M. (2022). *Prosiding Senada (Seminar Nasional Daring) Pemanfaatan Aplikasi Fitur Short pada YouTube sebagai Media Pembelajaran untuk Meningkatkan Kemampuan*



Baca Puisi pada Siswa SMA. 1188–1199.

- Pranoto, S. E. (2020). Penggunaan Game Based Learning Quizizz Untuk Meningkatkan Keaktifan Belajar Siswa Pada Mata Pelajaran Sosiologi Materi Globalisasi Kelas Xii Ips Sma Darul Hikmah Kutoarjo. *Habitus: Jurnal Pendidikan, Sosiologi, & Antropologi*, 4(1), 25. <https://doi.org/10.20961/habitus.v4i1.45758>
- Prayitno, M. A. (2022). Implementasi Metode Tutor Sebaya Sebagai Upaya Peningkatan Keaktifan dan Hasil Belajar Siswa pada Mata Pelajaran Fikih Kelas X (PTK DI MA YPIP PANJENG PONOROGO). *Institut Agama Islam Negeri Ponorogo*, 108. <http://etheses.iainponorogo.ac.id/18396/>
- Putri, F. E., Amelia, F., & Gusmania, Y. (2019). Hubungan Antara Gaya Belajar dan Keaktifan Belajar Matematika Terhadap Hasil Belajar Siswa. *Edumatika: Jurnal Riset Pendidikan Matematika*, 2(2), 83. <https://doi.org/10.32939/ejrpm.v2i2.406>
- Suharto, R. P. (2022). Persepsi Mahasiswa Bahasa Inggris terhadap Penggunaan YouTube sebagai Media Pembelajaran Online Matakuliah English for MICE. *Jurnal Terapan Pendidikan Dasar Dan Menengah*, 2(4), 704–711. <https://doi.org/10.28926/jtpdm.v2i4.681>
- Suwarto, S., Muzaki, A., & Muhtarom, M. (2021). Pemanfaatan Media YouTube sebagai Media Pembelajaran pada Siswa Kelas XII MIPA di SMA Negeri 1 Tawang Sari. *Media Penelitian Pendidikan : Jurnal Penelitian Dalam Bidang Pendidikan Dan Pengajaran*, 15(1), 26–30. <https://doi.org/10.26877/mpp.v15i1.7531>
- Tarmizi, A., & Hutasuhut, J. (2021). Jurnal Bisnis Mahasiswa Pengaruh Motivasi Kerja Dan Gaya Kepemimpinan Partisipatif Terhadap Kinerja Aparatur Sipil Negara Pada Kantor Camat Perbaungan Kabupaten Serdang Bedagai. *Bisnis Mahasiswa*, 2(1), 24–33.
- Yusriani, Y., Nasution, M., & Syahputra, E. (2022). Pemanfaatan Aplikasi You Tube Sebagai Media Pembelajaran Bahasa Indonesia. *Jurnal Multidisiplin Dehasen (MUDE)*, 1(3), 215–218. <https://doi.org/10.37676/mude.v1i3.2521>

