

The Effect of Discussion Learning Methods and Learning Interest on Students' Learning Achievement In The Citizenship Education Subject

Roulinawati Pasaribu¹, Daulat Nathanael Banjarnahor², Sabar Dumayanti Sihombing³

¹²³ Pendidikan Keawarganegaraan, Fakultas Keguruan Dan Ilmu Pendidikan, Universitas HKBP Nomensen Pematangsiantar, Pematangsiantar, Indonesia
Email: roulinawatipasaribu9@gmail.com

Abstract

This study aims to determine the influence of the discussion learning model and students' learning interest on academic achievement in the Civic Education subject in Grade XI Social Science Class at SMA Negeri 5 Pematangsiantar. This research employs a quantitative approach with a sample of 37 students. Data collection was conducted using a questionnaire. The result of the simple linearity test showed an F-value of 118.770 with a significance level of $0.000 < 0.05$, indicating a linear relationship between the discussion learning model and academic achievement. The simple correlation test showed a significance value of $0.000 < 0.05$ and a Pearson correlation coefficient of 0.879, suggesting a significant and strong influence of the discussion learning model on students' academic achievement. Furthermore, the linearity test between learning interest and academic achievement yielded an F-value of 76,545.036 with a significance level of $0.000 < 0.05$. The correlation test also indicated a significance value of $0.000 < 0.05$ and a Pearson correlation coefficient of 1.000, meaning that learning interest has a perfect correlation with academic achievement. This indicates that both the discussion learning model and learning interest together have a very strong and significant influence on students' academic achievement.

Keywords: *Discussion Method, Learning Interest, Civic Education, Academic Achievement*

INTRODUCTION

Education in general is effort to develop potential participant to educate, good in a way physical, creative, emotional, and intention. Education is carried out in a way conscious and planned to realize an atmosphere conducive to learning (Sidik et al., 2021). Education is business in a way conscious and planned to realize an atmosphere for learning and learning process so that participants to educate become more active in developing potential themselves so that later own religious spiritual power, control self, personality, intelligence, morals noble, and skills. Good and quality education is very necessary for

increase quality individuals around the world. As do we know Now This, every country is competing For plan the highest possible education for every inhabitant his country (Alyasseri et al., 2022). Through quality education, then a country will give birth to Quality Human Resources (HR) (Anis & Anwar, 2020).

In the opening The Constitution of the State of the year (UUD 1945) in general firm state that one of the goal of the state is For enlightening life nation, which can done with method through education. And stated that " Every Indonesian citizens have the right get proper education ". So, from explanation the can be known that There is efforts and roles government in increase education in Indonesia. Efforts and roles government in increase quality education (Siagian et al., 2023).

One of School Education Level Senior High School (SMA) in Indonesia is level education middle school that prioritizes preparation student For continue more education tall with specialization. Placing students in the department certain in a way appropriate means give opportunity to student For can succeed in the future come (Mutakinati et al., 2018). This is in accordance with sound Article 12 of the Law Number 20 of 2003, that Participant educate get service education in accordance with talents, interests, and abilities. For avoid possibility happen inaccuracy majors high school students in choice major certain (Sartika & Dewi, 2022), necessary There is effort including : measurement and assessment effectiveness planning majoring, effectiveness implementation majors, success student after majors, and obstacles faced in majors. Learning methods in a way general is the method used For convey material to students so that the goal learning achieved. Learning methods can create a learning process teach more effective, efficient, and fun (Aslam et al., 2021).

As for one of them method discussion is interaction between student with student or student with the teacher to analyze, solve problem, dig, debate topic or problem certain. Discussion method would be a perfect fit implemented For solve problem specifically questions in the form of case studies. Discussion method is method presentation lessons, where student confronted to something problems that can in the form of statement or questions of a nature problematic For discussed and resolved together, so that happen interaction between two or more individuals involved, mutually swap exchange experience, information, solving problems (Joshi et al., 2020). Advantages method discussion among others (Muchsin, 2020). Raising awareness child educate that problem can solved with various road and not One road. Awareness child educate that with discuss they each other put forward opinion in a way constructive so that can obtained more decisions good. Get used to it child educate For listen even other people's opinions different with his opinion alone and get used to it behave tolerance (Lyesmaya et al., 2020).

Interest is a feeling of attraction, attention, desire more to have somebody to something thing, without There is encouragement ". Interest is encouragement to something things that consist of from feeling happy, paying attention, seriousness, existence desires and goals in reach something purpose. That implementation method appropriate learning with characteristics student can increase results Study students. Discussion method can stimulate student For more creative in give ideas and thoughts.

Then with method discussion can practice For get used to self exchange thought in overcome every problems. Besides That can practice skills student For put forward opinion or idea verbally, and also train self value other people's opinions (Holiver et al., 2020). With Thus, the implementation method learning discussion in something learning influential big for development performance Study students (Nie et al., 1996). Therefore method learning discussion is in accordance with objective learning that is develop talent, interest and having Power in accordance with environment physical and social student (Burgess & Matar, 2020).

Performance is skills or results concrete that can achieved at the time or period certain. Effective learning can help student For increase expected capabilities in accordance with objective instructional that you want achieved. To increase performance good study need noticed internal and external conditions. Internal conditions are condition or the existing situation in self students, namely There is drive and interest. Conditions external is conditions that exist outside self personal humans, for example room clean learning, facilities and infrastructure adequate learning (Veldhuis, 1997).

Success is basically No Possible can achieved without based on high interests and tendencies For control condition stated environment past attitude. With thus performance high learning will can achieved by students if student the own interest reading and motivation high learning. Many factors reason quality education low, among them activity lack of learning responsive to diversity individual and environment place student located. Learning thus not enough beneficial for students (Efimova & Nygren, 2025). So that learning meaningful, necessary designed and developed based on conditions student as subject learning and community culture place student stay. Students is human beings who have history, creatures with characteristics uniqueness (individuality). Understanding of subject Study must owned by teachers or power education other For made into foothold in develop theory or practical education and learning (Muttaqien et al., 2021).

Problems related learning with low performance Study students at school medium on supported by the results observations conducted by researchers at a high school in Pematangsiantar namely at State High School 5 Pematangsiantar in the subject civics lessons. At the time Citizenship Education learning, students difficulty in answer questions and issues given by the teacher because lack of method interesting learning that can be done trigger interest Study student For increase results Study student (Septantiningtyas et al., 2021).

METHODS

Type of research used in study This is study quantitative. According to Suharsimi Arikunto (2006:12) said that " research quantitative in accordance with his name, many sued use numbers, start from data collection, interpretation to the two data, and appearance ".

Furthermore Sugiyono (Insani Nurchintyawati, S.Pd., 2022) said that " research quantitative is method research based on philosophy positivism used For research on

population or sample certain techniques taking samples in general done randomly, data collection using research instruments, data analysis is statistical in nature with objective For test hypothesis that has been determined ”.

As for the uses from location and time study This is For help make things easier useful information in matter collection of data obtained from information involved with research. Population is a set of data that has the same characteristics and become object inference. Arikunto (2006:130) said that “ Population is overall object research. If a want to research all existing elements in the research area, then his research is study or census ” (Rohma, 2021).

research object has 10 classes at SMA Negeri 5 Pematangsiantar, where 10 classes the has 2, namely science and social studies. However, researchers take population of 5 classes that is class XI IPS which number a total of 170 people. The sample is part from population that has chosen For represent all over existing population. Samples can be interpreted representative part and with remember amount sufficient population big so when made into total sample carrying all over population is hard work for researchers and also remember time and cost as well as the abilities possessed by researchers (Auh & Kim, 2024).

Arikunto say that “Sample is part or a representative of the population that is accurate, Some of overall research subjects considered represent from all over population called sample research. If the subject not enough from 100 then can taken 10-15% or 15-25% or more depends at least from ability researchers until the extent of the observation area and the size small risk.

Based on opinion expert above, and in connection with limited ability researchers remember size / extent of observation area so researchers determine sample with using purposive random sampling, namely $25\% \times 150 \text{ people} = 37 \text{ people}$. sample done in a way random with assumption selected samples can reach objective.

Data collection techniques are how it is done researchers For collect the required data. Researchers This use scale with four choice answer. Respondent requested For choose one from alternatives appropriate answer with condition himself As known that data collection is distributed to respondents. A things to pay attention to is researchers must inspect the reliability of the instrument used. In research This used is questionnaire fulfil requirements (questionnaire), therefore That researchers to quality of research instruments used For questionnaire method learning and motivation Study validity test and reliability test are used.

Data is component important For needs research. Data obtained and results studied or test formulated hypothesis (Hassan et al., 2021). For researcher's variable X1 use questionnaire, for X2 the researcher also used questionnaire and for Y variable (dependent) researcher use documentation (list of collections mark).

RESULTS AND DISCUSSION

Validity test is tool measuring or instruments that will arranged to get accurate results. Testing This done For test every grains questionnaire every variable. The calculation use *Microsoft Excel 2010*. If mark coefficient correlation grains the questions

being tested are more big from r- table so can concluded that grains question the is grains valid questionnaire. Based on the results calculation with use *Microsoft Excel 2010* application shows that questions being tested as many as 15 grains questionnaire method discussion, 25 points questionnaire interest Study and 25 grains questionnaire achievement Study to students in grade XI of SMAN 5 Pematangsiantar. From the results calculation validity there are 10 grains valid questionnaire and 5 items invalid question. Calculation results grains question read more can seen in the attachment. From results calculation validity questionnaire questionnaire interest Study there are 20 grains valid questionnaire and 5 items invalid questions (Herpratiwi & Tohir, 2022). From the results calculation validity questionnaire questionnaire performance Study there are 20 grains valid questionnaire and 5 items invalid question. Calculation results grains question read more can see attachment (Thor & Karlsudd, 2020).

Reliability test is level or degrees consistency test, basic For know provisions This done or seen from alignment results. The technique used in testing reliability is method half or spil split two, on the instrument questionnaire method discussion totaling 10 points questions, on the instrument questionnaire interest study 20 points questions, on the instrument questionnaire performance study 20 points question (Annida et al., 2018). Calculation reliability carried out use formula *splith -halt* obtained coefficient reliability grains question of 0.833 then question the stated reliable.. Calculation reliability carried out use the formula proposed with *splith -halt* obtained coefficient reliability grains question of 0.881 then question the stated reliable. Reliability test results read more can see attachment.

Data Analysis Techniques

Data Normality Test

Normality test used For see whether the data comes from from population normally distributed or no. In the research This using the chi square test with use help *SPSS* version 25. Here results of the normality test of the data used with *SPSS* version 25

Table 1. Chi-Square Test

Chi-Square Tests			
	Value	Df	Asymptotic Significance (2- sided)
Pearson Chi-Square	518,514 ^a	475	.082
Likelihood Ratio	178,431	475	1,000
Linear-by-Linear Association	27,806	1	.000
N of Valid Cases	37		

a. 520 cells (100.0%) have expected count less than 5. The minimum expected count is.03.

Based on the data above obtained chi-square value 0.000, < 0.05 then can concluded there is influence method learning discussion and interest Study to achievement Study students in the eye lesson education citizenship in class XI IPS SMAN 5 Pematangsiantar.

Hypothesis Testing

Simple Linear Regression Test

Analysis regression simple used For test influence variables free to variables bound. Here this is a simple linear regression test variables method discussion (x1) against variables performance study (Y). Served in table following This (Kusuma et al., 2020).

Table 2. Simple Linear Regression Discussion Method against performance Study

ANOVA ^a						
Model		Sum Squares	of df	Mean Square	F	Sig.
1	Regression	7784.960	1	7784.960	118,770	.000 ^b
	Residual	2294.121	35	65,546		
	Total	10079.081	36			

a. Dependent Variable: achievement Study

b. Predictors: (Constant), Discussion

Based on the table on known calculated F value = 118.770 with level significance of $0.000 < 0.05$, then can concluded that method learning discussion influential to achievement Study students in the eye lesson education citizenship in class XI IPS SMAN 5 Pematangsiantar.

Table 3. Simple linear regression interest Study to performance Study

ANOVA ^a						
Model		Sum Squares	of df	Mean Square	F	Sig.
1	Regression	10074.475	1	10074.475	76545.036	.000 ^b
	Residual	4,607	35	.132		
	Total	10079.081	36			

a. Dependent Variable: achievement Study

b. Predictors: (Constant), interest Study

Based on the table on known calculated F value = 76545.036 with level significance of $0.000 < 0.05$, then the regression model can used For predict variables free interest Study or in other words there is influence variable X against variable Y is concluded that interest Study influential to achievement Study students in the eye lesson education citizenship in class XI IPS SMAN 5 Pematangsiantar (Telaumbanua, 2022).

Linearity Test Multiple Regression

Analysis multiple regression is used For predict mark something variables dependent (Y) namely achievement learning based on two or more variables

independent (X) namely method discussion and interest learning. Served in table following This (Rohman & Mentari, 2024).

Table 4. Multiple Regression Test

ANOVA ^a					
Model	Sum of Squares	Df	Mean Square	F	Sig.
1 Regression	10074907	2	5037.454	41037.218	.000 ^b
Residual	4,174	34	.123		
Total	10079.081	36			

a. Dependent Variable: achievement Study

b. Predictors: (Constant), interest learning, discussion

(Source: H ODA SPSS 25)

Based on the table on known calculated F value = 41037.218 with level significance of $0.000 < 0.05$, then can concluded that method learning discussion and interest Study influential to achievement Study students in the eye lesson education citizenship in class XI IPS SMAN 5 Pematangsiantar.

Coefficient Significance Test Determination

Aim For measure how much big influence independent variables on variables dependent and its value range between zero until One.

Table 5. Correlation Determination

Model Summary ^b									
Model	R	R Square	Adjusted R Square	Standard Error of the Estimate	R Square Change	Change Statistics			Sig. F Change
						F Change	df1	df2	
1	1,000 ^a	1,000	1,000	.350	1,000	41037.218	2	34	.000

a. Predictors: (Constant), Discussion, interest Study

b. Dependent Variable: achievement Study

Based on the table on known the R Square value is 1.00 then can concluded that Influence method learning discussion and interest Study own connection significant to performance Study in a way together. With mark intervention coefficient of 1,000. Then you can that method learning discussion and interest Study own connection si to performance Study with level very strong relationship (Sidabutar, 2021).

This research done For know whether there is influence method learning discussion and interest Study to achievement Study students in the eye lesson education citizenship in class X1 IPS SMAN 5 Pematangsiantar through Questionnaire questionnaire that has been done to participant educate in class X1 IPS SMAN 5 Pematangsiantar. From the results study the there is positive influence to performance

Study Study with method learning discussion and interest Study (Astuti & Nurcahyo, 2019).

In research this, researcher using a learning model discussion in order to stimulate creativity, developing attitude each other appreciate, expand insight and habituation deliberation, making atmosphere Study more fun, improve enthusiasm students, improve activity students (Rahmawati et al., 2023). The first step taken researchers questionnaire questionnaire consisting of from questionnaire method discussion, questionnaire interest learning, questionnaire, achievement learning, given to class X1 IPS SMAN 5 (Nakaya, 2018). After being distributed researchers determine valid and invalid questions. From 15 questionnaires method discussion There are 10 valid questions and 5 invalid questions, for questionnaire interest Study consists of of 25 questions There are 20 valid questions and 5 invalid questions. As well as for questionnaire achievement Study consists of of 25 questions There are 20 valid questions and 5 invalid questions. get it reliability test results For method discussion of 0.833.

Whereas For reliability test results interest Study of 0.904, and reliability test results achievement very high learning which is 0.881 and can stated all grains question the reliable. Next, test the normality of the data based on the data above (Munawaroh et al., 2022). obtained chi-square value 0.000, < 0.05 then can concluded there is influence method learning discussion and interest Study to achievement Study students in the eye lesson education citizenship in class XI IPS SMAN 5 Pematangsiantar (Darmayanti et al., 2024). The value tested based on the normality test using the chi-square test the data obtained from results Study citizenship normally distributed.

Furthermore researchers using hypothesis testing data from hypothesis testing results with a simple linear regression test obtained mark F count method discussion = 118,770 with level significance of $0.000 < 0.05$, then can concluded that method learning discussion influential to achievement Study students in the eye Citizenship Education lessons in class XI IPS SMAN 5 Pematangsiantar. Meanwhile for mark F count interest study = 76545.036 with level significance of $0.000 < 0.05$, then the regression model can used For predict variables free interest Study or in other words there is influence variable X against variable Y is concluded that interest Study influential to achievement Study students in the eye lesson education citizenship in class XI IPS SMAN 5 Pematangsiantar (Ramang, 2023).

Furthermore Researchers also used multiple regression tests to obtain calculated F value = 41037.218 with level significance of $0.000 < 0.05$, then can concluded that interest Study influential to achievement Study students in the eye lesson education citizenship in class XI IPS SMAN 5 Pematangsiantar (Ismiyanti, 2020). The researcher also used the correlation test simple For know degrees connection between variables X and Y after testing were obtained results known mark significance method discussion of $0.000 < 0.05$, then can concluded that method discussion correlated to achievement Study with The person correlation value is 0.879. So it can be concluded method discussion own correlation with performance Study with degrees connection correlation

perfect. While For interest Study mark significance of $0.000 < 0.05$ (Suherman et al., 2023).

Then you can concluded that interest Study correlated to achievement Study with person correlation value 1,000, can concluded interest Study own correlation with performance Study with degrees connection correlation perfect (Risdianto et al., 2021). Researchers also used multiple correlation tests with mark significance of $0.000 < 0.05$, then can concluded that interest Study correlated to achievement Study with person correlation value of 1,000. Then it can be concluded interest Study own correlation with performance Study with degrees connection correlation perfect (Uddin et al., 2022).

And last researchers using determination test after tested obtained the R Square value is 1.00 then can concluded that Influence method learning discussion and interest Study own connection significant to performance Study in a way together. With mark intervention coefficient of 1,000. Then you can that method learning discussion and interest Study own connection si to performance Study with level the relationship is very strong. then H_0 rejected and H_1 accepted. This is show that there is influence method learning discussion and interest Study to achievement Study students in the eye lessons education citizenship in class XII IPS SMAN 5 Pematangsiantar.

CONCLUSION

Based on the results research and testing conducted can concluded that : There is a significant influence method learning discussion and towards achievement Study students in the eye lessons education citizenship in class X1 IPS SMAN 5 Pematangsiantar, page the proven linearity test results simple results calculated F value = 118.770 with level significance of $0.000 < 0.05$,. Then tested with correlation test simple known mark significance of $0.000 < 0.05$, the person correlation value is 0.879, it can be concluded there is influence method learning discussion correlated to achievement Study with person correlation value 1,000, can concluded interest Study own correlation with performance Study with degrees connection correlation perfect. There is a significant influence interest Study to achievement Study students in the eye lessons education citizenship in class X1 IPS SMAN 5 Pematangsiantar, page the proven linearity test results calculated F value = 76545.036 with level significance of $0.000 < 0.05$, then testing correlation simple mark significance of $0.000 < 0.05$, then can concluded that interest Study correlated to achievement Study with person correlation value 1,000, can concluded interest Study own correlation with performance Study with degrees connection correlation perfect.

There is a significant influence method learning discussion and interest Study to achievement Study students in the eye lessons education citizenship in class X1 IPS SMAN 5 Pematangsiantar, page the proven the results of multiple regression tests where calculated F value = 41037.218 with level significance of $0.000 < 0.05$,. Then tested with multiple value correlation significance of $0.000 < 0.05$, then can concluded that method learning discussion and interest Study own connection significant to performance Study in a way together. With mark coefficient correlation of 1,000, then final tested with determination test mark RSquare of 1.00. Then it can be concluded that

method learning discussion and interest Study own connection to performance Study with level very strong relationship..

Suggestion

As for the suggestions that can be given by researchers, namely as following

1. For Schools, Schools can implementing learning models This as breakthrough new in education For increase quality in the learning to create active, fun learning as well as should school can facilitate implementation of the learning model This ongoing with fluent that is with provide adequate facilities and infrastructure.
2. For the Head School, Principal school can increase quality discussion at school with apply various method interactive and participatory discussions, then head schools also need create atmosphere comfortable and encourage teachers to active guide discussion.
3. For teachers, teachers can apply method learning discussion because based on the results study writer method learning discussion influential strong to achievement Study student in the learning process that can involving student more active moment Study as well as can reduce level boredom in learning. And with use method learning This It is hoped that teachers can notice learning so that learning more effective
4. For Students method learning If implemented will more pleasant For those are the students recommended For form group and can choose leader discussion, arrange comfortable seating, with guided by teachers, students should know in a way exactly What will discussed and how method discuss, results reported discussion must responded to by all students, results discussion must noted.

REFERENCE

- Alyasser, Z. A. A., Al-Betar, M. A., Doush, I. A., Awadallah, M. A., Abasi, A. K., Makhadmeh, S. N., Alomari, O. A., Abdulkareem, K. H., Adam, A., Damasevicius, R., Mohammed, M. A., & Zitar, R. A. (2022). Review On <Scp>Covid</Scp> -19 Diagnosis Models Based On Machine Learning And Deep Learning Approaches. *Expert Systems*, 39(3), E12759. <https://doi.org/10.1111/Exsy.12759>
- Anis, M., & Anwar, C. (2020). Self-Organized Learning Environment Teaching Strategy For Elt In Merdeka Belajar Concept For High School Students In Indonesia. *Jees (Journal Of English Educators Society)*, 5(2), 199–204. <https://doi.org/10.21070/Jees.V5i2.869>
- Annida, A. I., Slamet, S. Y., & Winarni, R. (2018). The Effect Of Directed Reading Thinking Activity (Drta) Learning Strategy And Reading Interest For Reading Comprehension Ability. *Social, Humanities, And Educational Studies (Shes): Conference Series*, 1(1). <https://doi.org/10.20961/Shes.V1i1.23454>
- Aslam, L. K., Suparji, S., & Rijanto, T. (2021). The Effect Of Problem Based Learning Model On Learning Outcomes In The Vocational High School Students. *International Journal For Educational And Vocational Studies*, 3(4), 264. <https://doi.org/10.29103/Ijevs.V3i4.3958>

- Astuti, E., & Nurcahyo, H. (2019). Development Of Biology Learning Media Based On Adobe Flash To Increase Interest And Conceptual Understanding. *Journal Of Physics: Conference Series*, 1241(1), 012050. <https://doi.org/10.1088/1742-6596/1241/1/012050>
- Auh, Y., & Kim, C. (2024). Global Citizenship Education: Towards A Critical Moral Pedagogy. *Social Education Research*, 450–471. <https://doi.org/10.37256/Ser.5220244897>
- Burgess, A., & Matar, E. (2020). Team-Based Learning (Tbl): Theory, Planning, Practice, And Implementation. In D. Nestel, G. Reedy, L. Mckenna, & S. Gough (Eds.), *Clinical Education For The Health Professions: Theory And Practice* (Pp. 1–29). Springer Singapore. https://doi.org/10.1007/978-981-13-6106-7_128-1
- Darmayanti, N. N. K. M., Suarni, N. K., & Wibawa, I. M. C. (2024). Audio Visual Literacy Media Based On Fable Story To Increase Student Reading Interest For Second Grade Of Elementary Student. *Journal Of Education Technology*, 8(2), 353–361. <https://doi.org/10.23887/Jet.V8i2.69169>
- Efimova, E., & Nygren, T. (2025). *Supporting Multiperspectivity On A Controversial Issue: Structured Discussion With Preparatory Reading Improves Argumentation And Reduces Polarisation*. https://doi.org/10.31219/Osf.io/N85wb_V1
- Hassan, I., Madarina Abdul Rahman, A., & Nazri Latiff Azmi, M. (2021). Development Of English Writing Skills Through Blended Learning Among Esl Learners In Malaysia. *Arab World English Journal*, 7(1), 377–389. <https://doi.org/10.24093/Awej/Call7.26>
- Herpratiwi, & Tohir, A. (2022). Learning Interest And Discipline On Learning Motivation. *International Journal Of Education In Mathematics, Science, And Technology*, 10(2), 424–435. <https://doi.org/10.46328/Ijemst.2290>
- Holiver, N., Kurbatova, T., & Bondar, I. (2020). Blended Learning For Sustainable Education: Moodle-Based English For Specific Purposes Teaching At Kryvyi Rih National University. *E3s Web Of Conferences*, 166, 10006. <https://doi.org/10.1051/E3sconf/202016610006>
- Insani Nurchintyawati, S.Pd., M. P. (2022). Android Based Educational Game In Learning And Teaching English Vocabulary. *Journal Of Applied Linguistics*, 2(1), 13–18. <https://doi.org/10.52622/Joal.V2i1.44>
- Ismiyanti, Y. (2020). The Effect Of Bamboo Dance Learning Model On Interest And Learning Achievement Of Social Sciences Class Iii Sdn 2 Temulus. *Icic 2020: Proceedings Of The 1st International Conference On Islamic Civilization, Icic 2020, 27th August 2020, Semarang, Indonesia*, 279.
- Joshi, A., Desai, P., & Tewari, P. (2020). Learning Analytics Framework For Measuring Students' Performance And Teachers' Involvement Through Problem Based Learning In Engineering Education. *Procedia Computer Science*, 172, 954–959. <https://doi.org/10.1016/J.Procs.2020.05.138>
- Kusuma, J. W., Jefri, U., Hidayat, A., & Hamidah, H. (2020). Application Of Treffinger Learning Model To Improve Creative Reasoning And Mathematical Problem Solving Skills As Well As Student Learning Interests. *Jtam (Jurnal Teori Dan*

- Aplikasi Matematika*, 4(2), 204–213.
<https://doi.org/10.31764/Jtam.V4i2.2840>
- Lyesmaya, D., Musthafa, B., & Sunendar, D. (2020). Local Wisdom Value's-Based Literacy Education Learning Model In Elementary School. *Journal Of Physics: Conference Series*, 1470(1). <https://doi.org/10.1088/1742-6596/1470/1/012030>
- Muchsin, W. (2020). The Pragmatic Study Of Speech Act Analysis In Discussion Activities On Speaking Learning. *Eduvelop: Journal Of English Education And Development*, 3(2), 64–72.
- Munawaroh, Z., Sari, P. K., Pambudi, B. S., & Ekapti, R. F. (2022). Development Of The Etintec Student Book (Ethnoscience-Based Interactive Teaching Student Book) As An Interactive Learning Media Based On The Typical Ponorogo Culture On Ecology And Biodiversity Materials. *Insecta: Integrative Science Education And Teaching Activity Journal*, 3(2), 158–167. <https://doi.org/10.21154/Insecta.V3i2.5143>
- Mutakinati, L., Anwari, I., & Kumano, Y. (2018). Analysis Of Students' Critical Thinking Skill Of Middle School Through Stem Education Project-Based Learning. *Jurnal Pendidikan Ipa Indonesia*, 7(1), 54–65. <https://doi.org/10.15294/Jpii.V7i1.10495>
- Muttaqien, A. R., Suprijono, A., Purnomo, N. H., & Rendy A.P, D. B. (2021). The Influence Of Cooperative Learning Model Types Of Teams Games Tournaments On Students' Critical Thinking Ability. *International Journal For Educational And Vocational Studies*, 3(6), 432. <https://doi.org/10.29103/Ijevs.V3i6.4620>
- Nakaya, A. (2018). Overcoming Ethnic Conflict Through Multicultural Education: The Case Of West Kalimantan, Indonesia. *International Journal Of Multicultural Education*, 20(1), 118–137. <https://doi.org/10.18251/Ijme.V20i1.1549>
- Nie, N. H., Junn, J., & Stehlik-Barry, K. (1996). *Education And Democratic Citizenship In America*. University Of Chicago.
- Rahmawati, Y., Mardiah, A., Taylor, E., Taylor, P. C., & Ridwan, A. (2023). Chemistry Learning Through Culturally Responsive Transformative Teaching (Crtt): Educating Indonesian High School Students For Cultural Sustainability. *Sustainability (Switzerland)*, 15(8). <https://doi.org/10.3390/Su15086925>
- Ramang, R. (2023). Microteaching Learning Strategies And Their Roles To Improve Teaching Ability Of Teacher Students At Islamic Higher Education. *Journal Of Innovation In Educational And Cultural Research*, 4(1), 109–121. <https://doi.org/10.46843/Jiecr.V4i1.468>
- Risdianto, E., Dinissjah, M. J., Nirwana, N., Sutarno, M., & Putri, D. H. (2021). Analysis Of Student Responses Toward Ethnoscience Based Direct Instruction Learning Model In Learning Physics Applying Rasch Model Approach. *Journal Of Physics: Conference Series*, 1731(1). <https://doi.org/10.1088/1742-6596/1731/1/012081>
- Rohman, R., & Mentari, A. (2024). Implementation Of The Strengthening Character Education Policy In Elementary Schools And Madrasah Ibtidiyah. *Jurnal Pendidikan Pkn (Pancasila Dan Kewarganegaraan)*, 5(1), 42–63. <http://repository.lppm.unila.ac.id/Id/Eprint/53431>
- Sartika, R., & Dewi, S. W. (2022). Sustainable Development Goals: Recognition Of Pancasila Education Materials In Shaping Global Citizenship. *Jurnal Civics: Media*

- Kajian Kewarganegaraan*, 19(2).
<https://Scholarhub.Uny.Ac.Id/Civics/Vol19/Iss2/12/>
- Septantiningtyas, N., Juhji, J., Sutarman, A., Rahman, A., Sa'adah, N., & Nawisa. (2021). Implementation Of Google Meet Application In The Learning Of Basic Science In The Covid-19 Pandemic Period Of Student Learning Interests. *Journal Of Physics: Conference Series*, 1779(1), 012068. <https://doi.org/10.1088/1742-6596/1779/1/012068>
- Siagian, A. F., Simamora, R., & Simamora, A. B. (2023). Development Of Learning Tools Oriented To The Brader Learning Model To Facilitate Teachers In Teaching Science Literacy. *EduTec: Journal Of Education And Technology*, 7(2), 666–672. <https://doi.org/10.29062/Edu.V7i2.807>
- Sidabutar, U. (2021). Students' Perception Toward English Speaking Motivation During Online Learning System Through Multimodal Approach. *Edukatif: Jurnal Ilmu Pendidikan*, 3(6), 4014–4024. <https://doi.org/10.31004/Edukatif.V3i6.1390>
- Sidik, R., Mulyaningsih, N. N., & Astuti, I. A. D. (2021). Development Of Predict-Observe-Explain (Poe)-Based Physics Module By Utilizing Qr Code And Youtube Learning Videos. *Nucleus*, 2(2), 54–61. <https://doi.org/10.37010/Nuc.V2i2.447>
- Suherman, A., Nurlaela, W. S., Dimyati, E., & Maulana, A. (2023). Actualization Of The Value Of Local Wisdom In Era 4.0 As A Learning Source For Pancasila And Citizenship Education. *3rd International Conference On Education And Technology (Icetek 2022)*, 225–236. https://doi.org/10.2991/978-2-38476-056-5_25
- Telaumbanua, A. (2022). Effect Of Method Reciprocal Learning, Student Learning Interest On Learning Outcomes Construction Management. *Edumaspul: Jurnal Pendidikan*, 6(2), 3211–3216. <https://doi.org/10.33487/Edumaspul.V6i2.5350>
- Thor, D., & Karlsudd, P. (2020). Teaching And Fostering An Active Environmental Awareness Design, Validation And Planning For Action-Oriented Environmental Education. *Sustainability*, 12(8), 3209. <https://doi.org/10.3390/Su12083209>
- Uddin, N., Jaya, S., Purwanto, E., Putra, A. A. D., Fadhillah, M. W., & Ramadhan, A. L. R. (2022). Machine-Learning Prediction Of Informatics Students Interest To The Mbkm Program: A Study Case In Universitas Pembangunan Jaya. *2021 International Seminar On Machine Learning, Optimization, And Data Science (Ismode)*, 146–151. <https://doi.org/10.1109/Ismode53584.2022.9743125>