

Effectiveness of Contextual Learning Models, Problem-Based Learning, and Learning Outcomes

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Abstract: This study aims to determine the effectiveness of contextual, problem-based learning and conventional learning models on student learning outcomes. The method used is quantitative with a comparative design. The object of this research is the learning outcomes of the seventh-grade students of MTs YPPS Sukamiskin. Class VII A consists of 32 students using a contextual model, class VII B has 34 students using a problem-based learning model, and class VII C has 32 students using a conventional one. Testing the data using the one-way ANOVA test which was analyzed by the SPSS version 20 application. The results of the normality test study, data using contextual learning models, problem-based learning and conventional normal distribution, and other evidence are indicated by the distribution of points on the Q-Q diagram on a diagonal line. While the results of the homogeneity test, the variance data is not homogeneous, this is indicated by the sig value of more than 0.05, namely 0.013. The conclusion from the results of this study is that the use of contextual learning models is more effective than problem-based and contextual learning models. This is evidenced by the average result (mean) using the contextual model is 81.5625, while the average result of the problem based learning model is 61.1765 and the average result of the conventional model is 57.5000.

Keywords: Contextual; Conventional; Effectiveness; Problem Based Learning

Abstrak: Penelitian ini bertujuan untuk mengetahui efektivitas model pembelajaran kontekstual, problem based learning dan konvensional terhadap hasil belajar siswa. Metode yang digunakan kuantitatif dengan desain komparatif. Objek dalam penelitian ini adalah hasil belajar siswa kelas VII MTs YPPS Sukamiskin. Kelas VII A berjumlah 32 menggunakan model kontekstual, kelas VII B berjumlah 34 siswa menggunakan model problem-based learning dan kelas VII C berjumlah 32 siswa menggunakan konvensional. Pengujian data menggunakan uji ANOVA satu jalur yang dianalisis oleh aplikasi SPSS versi 20. Hasil penelitian uji normalitas, data yang menggunakan model pembelajaran kontekstual, problem-based learning dan konvensional berdistribusi normal dan bukti lain ditunjukkan oleh sebaran titik-titik pada diagram Q-Q berada pada garis diagonal. Sedangkan pada hasil uji homogenitas, data variansi nya tidak homogen hal ini ditunjukkan oleh nilai sig lebih dari 0,05 yaitu 0,013. Kesimpulan dari hasil penelitian ini adalah penggunaan model pembelajaran kontekstual lebih efektif dibanding dengan model problem-based learning dan konvensional. Hal tersebut dibuktikan hasil rata-rata (mean) dengan penggunaan model kontekstual adalah 81,5625, sedangkan hasil rata-rata model problem-based learning adalah 61,1765 dan hasil rata-rata model konvensional adalah 57,5000.

Kata Kunci: Kontekstual; Efektifitas; Konvensional; Problem Based Learning

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INTRODUCTION

In the learning process at school, problems are often found both in students and in educators. Among the problems that arise are student learning outcomes that do not achieve completion scores in PAI learning. Another problem arises because the model applied by educators tends to be static and boring, so that students are less interested in participating in learning and resulting in learning outcomes (Istiqomah, 2020) (Ayuni et al., 2017).

Determining a learning model is one of the efforts of an educator to guide students to get good learning outcomes, can achieve learning goals well and is not boring for students (Harefa et al., 2020). A wide variety of learning models can be used by an educator. A student's activity and student cognitive outcomes can be influenced by the learning model used (Nurhasanan, 2020) (Palahudin & Ruswandi, 2021).

Some kinds of learning models that are often used by an education include contextual, problem-based learning and conventional. Contextual is a learning model that connects material with students' daily life experiences (Soleha et al., 2021) (Saleh, 2013). Problem based learning is a problem-based learning model that will greatly motivate students to solve problems as a form of understanding from students (Hakim, 2015) (Utomo et al., 2014).

Several previous studies have researched a lot about the Contextual learning model, one of the results of the study concluded that in the learning process that uses the Contextual learning model to improve the quality of learning, the implementation is not optimal from the seven components only three have been achieved, namely Questioning, Learning Community, and Reflection (Rukajat, 2019) (Hidayat & Nizar, 2021).

Previous research that is relevant to this research is research on Contextual Teaching And Learning (CTL) Learning Models Assisted by Miniature Environmental Media to Improve Social Studies Learning Outcomes, the results of this study show that the use of these models provides real experiences, creative thinking, student-centered and makes them critical (Sulfemi & Yuliani, 2019).

Previous research on the Problem Based Learning learning model concluded that there was an increase in learning achievement after the application of the problem-based learning model. Achievement is evidenced by the completeness of students' scores that reach 100%. In addition to achievements, there is an increase in student activity from both individuals and groups. Other findings can be seen from the response of students who prefer to use a problem-based learning model compared to other learning models (Istiqomah, 2020).

The next previous research on conventional learning, the results showed that the motivation to learn using conventional learning was quite good (Huda, 2016). Finally, previous studies that analyzed conventional learning models concluded that students' cognitive outcomes were lower than using other learning models. Conventional models are more dominated by educators which

causes students to become passive or student activity to decrease (Maryani, 2021).

The findings above can determine the novelty of this study, namely to determine the effectiveness of contextual, problem-based learning and conventional learning models from student learning outcomes in the Qur'an Hadith subjects. The purpose of this study is to find out a more effective learning model used for the PAI subject family in MTs, namely the Qur'an Hadith.

RESEARCH METHOD

This research method uses a quantitative method with a comparative research design, namely comparing which learning model is more effective to use in Qur'an Hadith subjects which are analyzed through student learning outcomes data (Kaunang, 2013). The data on student learning outcomes were analyzed using the SPSS version 20 application by means of the One-Track Anova Test, namely testing the difference in the mean (average) data of one or more groups (Subianto, 2016).

The object of this study is data on the learning outcomes of grade VII students in MTs YPPS Sukamiskin who use different learning models. In class VII A which consists of 32 students by applying the contextual learning model, in class VII B which consists of 34 students by applying the problem-based learning model and in class VII C which consists of 32 students applying the conventional learning model.

RESEARCH RESULT AND DISCUSSION

Research Result

In analyzing the effectiveness of student learning outcomes when using contextual, problem-based learning and conventional learning models, the following steps are carried out: 1) formulating hypotheses; 2) testing the normality of the data; 3) homogeneity test; and 4) testing hypotheses. The first step of formulating the Hypothesis:

H0: There is no difference in the score of Qur'an Hadith learning outcomes between students in classes that use the Contextual learning model and students in classes that use the Problem Based Learning learning model and Conventional classes.

H1: There is a difference in the score of Qur'an Hadith learning outcomes between students in classes that use the Contextual learning model and students in classes that use the Problem Based Learning learning model and Conventional classes.

Tabel 1.
Tests of Normality

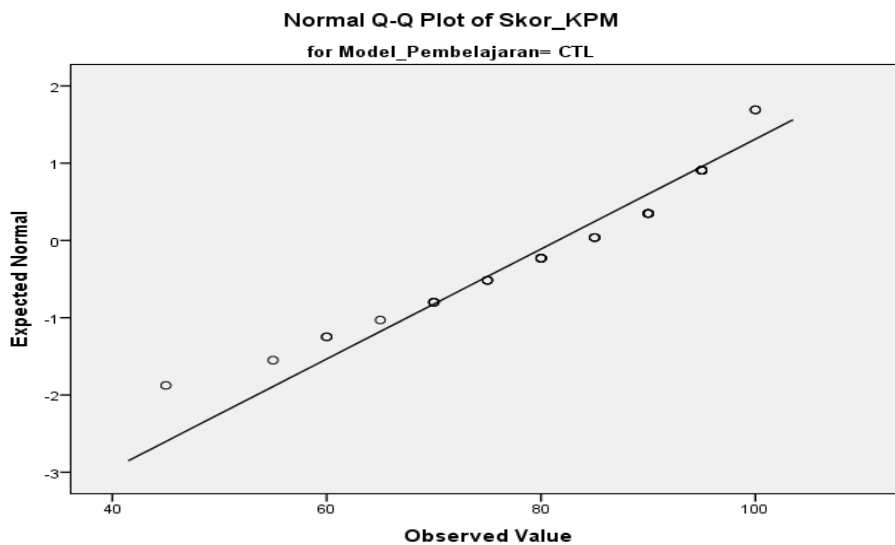
	Learning_Mod el	Kolmogorov-Smirnov ^a			Shapiro-Wilk		
		Statistic	df	Sig.	Statistic	df	Sig.
Skor_	CTL	.163	32	.030	.923	32	.025
KPM	PBL	.116	34	.200*	.967	34	.387
	KONVEN	.162	32	.033	.947	32	.118

*. This is a lower bound of the true significance.

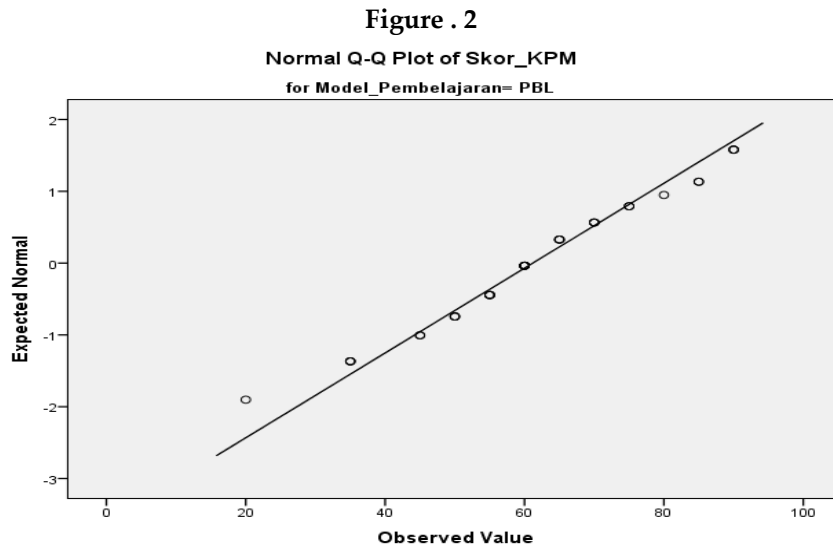
a. Lilliefors Significance Correction

Based on the output view of Table 1. The Test of Normality showed that the sig value in Komogorov-Smirnov, the three groups of learning models, namely contextual, problem base learning and conventional, was greater than 0.05 or > 0.05 similarly, in Shapiro Wilk the sig value for the three groups of learning models was greater than 0.05 or > 0.05. So the conclusion is that the distribution of qur'an hadith learning score data for students in contextual, problem based learning and conventional learning classes is normally distributed. While the data distribution looks like the image below

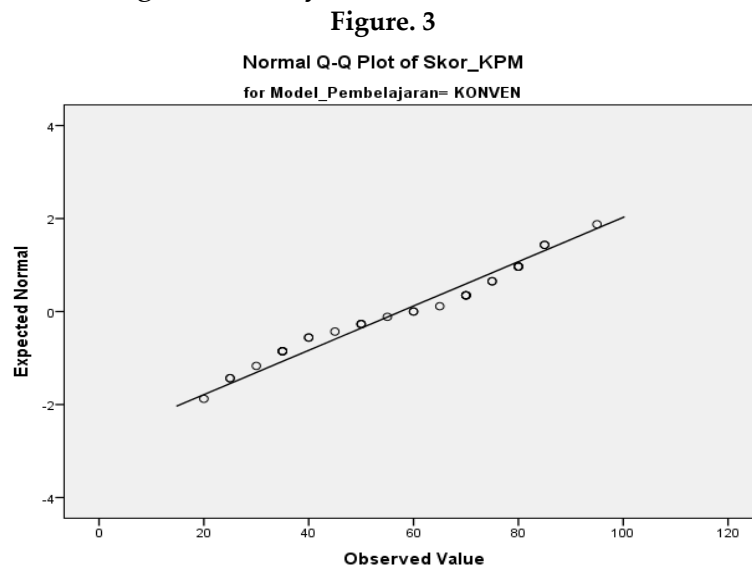
Figure 1.



It can be seen that in Figure 1. most of the KPM score data in the contextual class is around the line, this indicates that the KPM score data in the contextual is normally distributed.



It can be seen that in Figure 2. most of the KPM score data in problem-based learning classes is around the line, this shows that the KPM score data in problem-based learning is normally distributed.



It can be seen that in Figure 3. most of the KPM score data in conventional classes is around the line, this indicates that the KPM score data in conventional is normally distributed. Furthermore, to determine the homogeneity of variance in the learning group can be seen in the following table.

Tabel. 2
Test of Homogeneity of Variance

		Levene Statistic	df1	df2	Sig.
Skor_KPM	Based on Mean	4.550	2	95	.013
	Based on Median	4.093	2	95	.020
	Based on Median and with adjusted df	4.093	2	92.135	.020
	Based on trimmed mean	4.551	2	95	.013

In the display of the Test of Homogeneity of Variance there is one test tool used, namely the Levene test. In the output, it can be seen that the value of Sig Based on Mean is 0.013. The value is less than 0.05 (< 0.05). This means that the three groups of variance data are not homogeneous. The next step is to do hypothesis testing. Here is a table of results from hypothesis testing.

Tabel. 3
Descriptives

Skor_KPM

	N	Mean	Std. Deviation	Std. Error	95% Confidence Interval for Mean		Minimum	Maximum
					Lower Bound	Upper Bound		
CTL	32	81.5625	14.05275	2.48420	76.4959	86.6291	45.00	100.00
PBL	34	61.1765	16.92492	2.90260	55.2711	67.0819	20.00	90.00
KONVEN	32	57.5000	20.98386	3.70946	49.9345	65.0655	20.00	95.00
Total	98	66.6327	20.31676	2.05230	62.5594	70.7059	20.00	100.00

Next, to see the presence / absence of differences between the three learning groups, we look at the ANOVA output display.

Tabel. 4
ANOVA

Tabel. 4

	Sum of Squares	df	Mean Square	F	Sig.
Between Groups	10813.959	2	5406.980	17.576	.000
Within Groups	29224.816	95	307.630		
Total	40038.776	97			

Skor_KPM

Interpretation of the One Lane ANOVA TEST

It can be seen that the Sig Value is 0.000. Because the Sig (probability) is less than 0.05 or (<0.05) then H0 is rejected or H1 is accepted, that is, there is a difference in the average score of differences in Indonesian Learning Outcomes (PHB) from the three learning groups (Jigsaw, TGT, and Conventional).

Tabel. 5
Multiple Comparisons
Dependent Variable: Skor_KPM
Games-Howell

(I) Learning_Mo del	(J) Learning_Mo del	Mean Differe nce (I- J)	Std. Erro r	Sig.	95% Confidence Interval	
					Lower Bound	Upper Bound
CTL	PBL	20.3860 3*	3.82 051	.000	11.215 7	29.556 4
	KONVEN	24.0625 0*	4.46 445	.000	13.304 1	34.820 9
PBL	CTL	- 20.3860 3*	3.82 051	.000	- 29.556 4	- 11.215 7
	KONVEN	3.67647 0*	4.71 011	.716	-7.6449 8	14.997 8
KONVEN	CTL	- 24.0625 0*	4.46 445	.000	- 34.820 9	- 13.304 1
	PBL	- 3.67647 0*	4.71 011	.716	- 14.997 8	7.6449 8

*. The mean difference is significant at the 0.05 level.

Analysis Based on Games-Howel

Contextual dan Problem Based Learning

- In the first line of the Games-Howel test results which test the differences in the learning differences (PHB) of the Qur'an Hadith between students who study with Contextual and Problem Based Learning.
- In the Mean Diference column or the average difference obtained obtained 22.0000. This figure is obtained from the Contextual mean – Problem Based Learning mean, which is $81.5625 - 61.1765 = 20.38603$

Next, we test the significance of the difference in the average Learning Outcomes (PHB) of the Qur'an Hadith between students who study with the Contextual model and students who study with the Problem Based Learning model.

Hipotesis

H0: There is no difference in the learning outcome score (PHB) of the Qur'an Hadith between students in classes that use the Contextual learning model and students in classes that use the Problem Based Learning learning model.

H1: There is a difference in the learning outcome score (PHB) of the Qur'an Hadith between students in classes that use the Contextual learning model and students in classes that use the Problem Based Learning learning model.

Decision

It is seen that the probability value is 0.000 because the probability value is less than 0.05 or < 0.05 then H0 is rejected and H1 is accepted. So it is concluded that there are differences in the learning outcomes of the Qur'an Hadith between students in classes that use the Contextual learning model and students in classes that use the Problem Based Learning learning model.

Contextual Vs Konvensional

- In the first line of Games-Howel test results that test the differences in the learning differences (PHB) of the Qur'an Hadith between students who study with Contextual and Conventional.
- In the column Mean Diference or the average difference obtained is obtained -4.83333. This figure is obtained from the Contextual mean – the Conventional mean which is $81.5625 - 57.5000 = 24.06250$.

Next, we test the significance of the average difference in the Difference in Learning Outcomes (PHB) of the Qur'an Hadith between students who study with the Contextual model and students who study with the conventional model.

Hipotesis

H0: There is no difference in the learning outcome score (PHB) of the Qur'an Hadith between students in classes that use the Contextual learning model and students in classes that use the Conventional learning model.

H1: There is a difference in the learning outcome score (PHB) of the Qur'an Hadith between students in classes that use the Contextual learning model and students in classes that use conventional learning models.

Decision

It is seen that the probability value is 0.000 because the probability value is less than 0.05 or < 0.05 then H0 is rejected and H1 is accepted. So it is concluded that there is a difference in the learning outcome score (PHB) of the Qur'an Hadith between students in classes that use the Contextual learning model and students in classes that use the Conventional learning model. Problem Based Learning Vs Conventional

- In the first line of the Games-Howel test results that test the differences in the learning differences (PHB) of the Qur'an Hadith between students who study with Problem Based Learning and Conventional.
- In the column Mean Diference or the average difference obtained is obtained -4.83333. This figure is obtained from the Problem Based Learning mean – Conventional mean which is $61.1765 - 57.5000 = 3.67647$.

Next, we test the significance of the difference in the average difference in Learning Outcomes (PHB) of the Qur'an Hadith between students who study with the Problem Based Learning model and students learn with conventional models.

Hipotesis

H0: There is no difference in the learning outcome score (PHB) of the Qur'an Hadith between students in classes that use the Problem Based Learning learning model and students in classes that use conventional learning models.

H1: There is a difference in the learning outcome score (PHB) of the Qur'an Hadith between students in classes that use the Problem Based Learning learning model and students in classes that use conventional learning models.

Decision

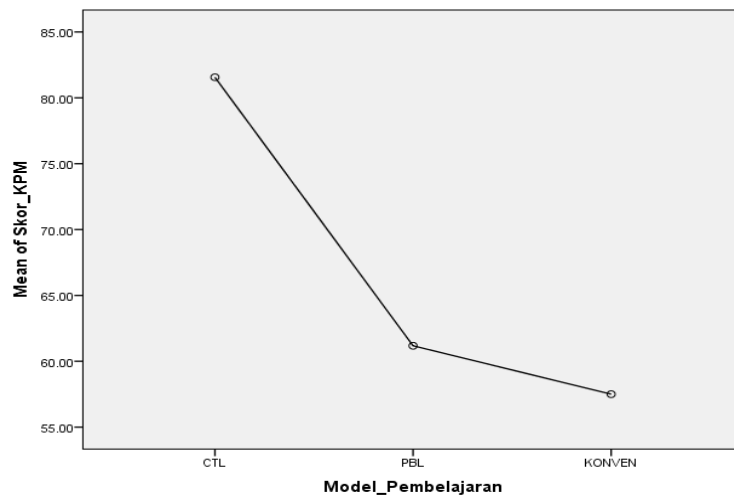
It is seen that the probability value is 0.716 because the probability value is greater than 0.05 or > 0.05 then H0 is rejected and H1 is accepted. So it was concluded that there was no difference in the learning outcome score (PHB) of the Qur'an Hadith between students in classes that used the Problem Based Learning learning model and students in classes that used conventional learning models. Summary of Post Hoc Test Results between the average scores (PHB) of Qur'an Hadith students from 3 learning models.

Tabel. 6

The average PHB Qur'an score Hadith students of 3 models:		Sig. Value	Decision	Conclusion
Contextual	Problem Based Learning	0,000	H0 rejected	There is a difference
Contextual	Konvensional	0,000	H0 rejected	There is a difference
Problem Based Learning	Konvensional	0,716	H0 received	There is no difference

The Mean Plot of the results of the Indonesian Bhs study among the three learning models is presented in the following figure:

Gambar. 4



From Figure 6., the Mean Plot of learning outcomes in Indonesian bhs can be seen that the Mean of Differences in Learning Outcomes (PHB) Qur'an Hadith students who study with the Contextual learning model occupy the highest position, followed by the mean PHB Qur'an Hadith students who learn with the Problem Based Learning learning model. And finally the mean PHB Qur'an Hadith students who learn it with a Conventional learning model.

Discussion

The use of learning models should improve student learning outcomes. The increase or absence of student learning outcomes can be seen from the scores obtained by students after or before using the learning model. Contextual is a model that can help students to understand the subject matter that is connected with daily life or personal experiences that have been experienced (Sadiyono & Sri, 2014). So to achieve this goal, it must go through eight components, namely: 1) building meaningful relationships; 2) doing meaningful work; 3) self-study; 4) collaborate between friends; 5) critical and creative thinking and 6) aids student growth and development (Khotimah, 2013).

Problem based learning learning model is a model that leads to real-life problem-solving activities, because the main characteristic of the problem-based learning model is that students will be faced with real problems and students are able to solve these problems in groups in accordance with the direction and guidance of educators (Sukmawarti et al., 2022). In the learning process that uses problem-based learning, students will be more active in the classroom (Ristiningsih et al., 2021).

While conventional learning or also called traditional learning is a learning model that contains synthacs, social systems, reaction principles and support systems (Sofiah et al., 2020). Students are required to memorize the material

given by the teacher, are not required to associate the material with real circumstances and students are less active in the learning process. However, conventional learning will be needed if the material presented is theoretical which requires direct explanation by the educator (Kresma, 2014) (Nurulhaq et al., 2019).

CONCLUSION AND IMPLICATION

Conclusion

Based on the analysis can be derived from these data, the normality of the distribution of the Qur'an Hadith Learning Outcomes (PHB) score data for students in contextual, problem based learning and conventional learning classes is normally distributed. Then based on the analysis of the data in the Test of Homogeneity of Variance there is one that produces a Sig Based on Mean value of 0.013, This means that the three groups of variance data are not homogeneous.

Hypothesized in contextual and Problem Based Learning data, it can be seen that the probability value is 0.000. So it is concluded that there are differences in student Qur'an Hadith learning outcomes between students who learn with Contextual learning and students who learn with Problem Based Learning learning. It is concluded that the hypothesis in the Contextual and Conventional data shows that the probability value is 0.000 So it is concluded that there is a difference in student Qur'an Hadith learning outcomes between students who learn Contextual learning and students who learn with Conventional learning. Furthermore, the hypothesis is concluded on the Problem Based Learning and Conventional data, it can be seen that the probability value is 0.716. So it is concluded that there is no difference in student Qur'an Hadith learning outcomes between students who study with Problem Based Learning and students who learn with Conventional learning.

The results of the One-Track Anova Test which contains data on student value results with the use of different learning models in each class, overall it can be concluded that when using the Contextual learning model, student learning outcomes look high, while the use of problem-based learning models occupies the second position after contextual, and conventional learning models are in the last order. The results of this study can be concluded that the use of contextual learning models is more effective than other models, this is in line with the results of research conducted by Chika that learning outcomes increase when carried out with contextual teaching strategies because the model is a factor that affects it.

Implication

Based on the results of this study, the use of contextual learning models for learning the Qur'an Hadith is more effective than using other learning models. It is evident from the data on student learning outcomes in the contextual learning

model in class VII A that more are complete and few are remedial. Therefore, as an educator, it is necessary to make efforts such as planning contextual learning models with appropriate and supportive materials, attending trainings or workshops on learning models and analyzing student learning outcomes data in order to see and compare more effective learning models.

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REFERENCES

- Ayuni, I. A. S., Kusmariyatni, N., & Japa, I. G. N. (2017). Pengaruh model pembelajaran Talking Stick berbantuan media Question Box terhadap hasil belajar IPA kelas V. *Journal of Education Technology*, 1(3), 183–190. <https://doi.org/https://doi.org/10.23887/jet.v1i3.12503>
- Hakim, L. (2015). Implementasi Model Pembelajaran Berbasis Masalah (Problem Based Learning) Pada Lembaga Pendidikan Islam Madrasah. *Jurnal Pendidikan Agama Islam-Ta'lim*, 3(1), 37–56.
- Harefa, D., Gee, E., Ndruru, M., Sarumaha, M., Ndraha, L. D. M., Telaumbanua, T., & Ndruru, K. (2020). Penerapan Model Pembelajaran Cooperative Script untuk Meningkatkan Hasil Belajar Matematika. *KPM (Jurnal Kajian Pendidikan Matematika)*, 6(1), 13–26.
- Hidayat, F., & Nizar, M. (2021). Model Addie (Analysis, Design, Development, Implementation and Evaluation) dalam Pembelajaran Pendidikan Agama Islam. *JIPAI: Jurnal Inovasi Pendidikan Agama Islam*, 1(1), 28–38.
- Huda, M. (2016). Pembelajaran Berbasis Multimedia dan Pembelajaran Konvensional (Studi Komparasi di MTs Al-Muttaqin Plemahan Kediri). *Jurnal Penelitian*, 10(1), 125–146.
- Istiqomah, I. (2020). Implementasi Model Problem Based Learning dalam Meningkatkan Prestasi dan Keaktifan Belajar Pendidikan Agama Islam Pokok Bahasan Ibadah Salat. *Tarbawi: Jurnal Pendidikan Islam*, 17(2), 51–72. <https://doi.org/https://doi.org/10.34001/tarbawi.v17i2.1648>
- Kaunang, C. A. (2013). Analisis perbandingan kinerja keuangan perusahaan menggunakan rasio profitabilitas dan economic value added pada perusahaan yang tergabung dalam LQ 45. *Jurnal EMBA: Jurnal Riset Ekonomi, Manajemen, Bisnis Dan Akuntansi*, 1(1), 648–658. <https://doi.org/https://doi.org/10.35794/emba.1.3.2013.2140>
- Khotimah, K. (2013). Penerapan Model Pembelajaran Contextual Teaching and Learning (CtL) Untuk Meningkatkan Hasil Belajar Siswa Mata Pelajaran IPA Kelas I SD. *Jurnal Penelitian Pendidikan Guru Sekolah Dasar*, 1(2), 1–10.

- Kresma, E. N. (2014). Perbandingan pembelajaran konvensional dan pembelajaran berbasis masalah terhadap titik jenuh siswa maupun hasil belajar siswa dalam pembelajaran matematika. *Educatio Vitae*, 1(1), 153–164.
- Maryani, T. (2021). Pengaruh Penerapan Metode Pembelajaran Stad dan Gaya Belajar Terhadap Hasil Belajar Kognitif Siswa. *Jurnal Kreatif PAI*, 1(1), 22–30.
- Nurhasanah, N. A. (2020). Meta Analisis Pengaruh Model Pembelajaran Kooperatif learning Tipe P. *Jurnal Pendidikan Guru Sekolah Dasar*, 9(5), 607–615.
- Nurulhaq, D., Fikri, M., & Syafaatunnisa, S. (2019). Etika guru PAI menurut Imam Nawawi (analisis ilmu pendidikan Islam). *Atthulab: Islamic Religion Teaching and Learning Journal*, 4(2), 133–143.
- Palahudin, P., & Ruswandi, U. (2021). Inovasi Pembelajaran PAI Berbasis Online dengan Model Assure. *JIPAI: Jurnal Inovasi Pendidikan Agama Islam*, 1(1), 1–11.
- Ristiningsih, R., Karimah, S., & 'Adna, S. F. (2021). Penerapan Model Pembelajaran Problem Based Learning Berbasis Rme Berbantu E-Modul Untuk Meningkatkan Kemampuan Pemecahan Masalah Matematika Siswa Kelas Viii. *Jurnal Pendidikan Matematika Undiksha*, 12(1), 49–57. <https://doi.org/10.23887/jjpm.v12i1.33280>
- Rukajat, A. (2019). Pembelajaran Contextual Teaching and Learning untuk Meningkatkan Mutu Hasil Pembelajaran. *Pionir: Jurnal Pendidikan*, 8(1), 85–111. <https://doi.org/http://dx.doi.org/10.22373/pjp.v8i1.4589>
- Sadiyono, B., & Sri, S. (2014). Pendekatan Contextual Teaching And Learning untuk Meningkatkan Prestasi Belajar pada Bidang Matematika. *Mosharafa: Jurnal Pendidikan Matematika*, 3(2), 67–74.
- Saleh, M. (2013). Strategi Pembelajaran Fiqh dengan Problem-Based Learning. *Jurnal Ilmiah Didaktika MEdia Ilmiah Pendidikan Dan Pengajaran*, 14(1), 190–220. <https://doi.org/http://dx.doi.org/10.22373/jid.v14i1.497>
- Sofiah, R., Suhartono, S., & Hidayah, R. (2020). Analisis Karakteristik Sains Teknologi Masyarakat (Stm) Sebagai Model Pembelajaran: Sebuah Studi Literatur." Pedagogi. *Jurnal Penelitian Pendidikan*, 7(1), 2–18. <https://doi.org/https://doi.org/10.25134/pedagogi.v7i1.2611>
- Soleha, F., Akhwani, A., Nafiah, N., & Rahayu, D. W. (2021). Model Pembelajaran Contextual Teaching and Learning untuk Meningkatkan Hasil Belajar Pkn di Sekolah Dasar. *Jurnal Basicedu: Journal Pf Elementary Education*, 5(5), 3117–3124. <https://doi.org/https://doi.org/10.31004/basicedu.v5i5.1285>
- Subianto, M. (2016). Pengaruh Gaji dan Insentif terhadap Kinerja Karyawan pada PT. Serba Mulia Auto di Kabupaten Kutai Barat. *Jurnal. Kalimantan Timur, Universitas Mulawarman Jurnal Administrasi Bisnis*, 4(3), 699–712.
- Sukmawarti, S., Hidayat, H., & Liliani, O. (2022). Implementasi Model Problem Based Learning untuk Meningkatkan Kemampuan Pemecahan Masalah

- Matematika Siswa SD. *Junral Pendidikan Dan Konseling (PJDK)*, 4(4), 886–894.
<https://doi.org/https://doi.org/10.31004/jpdk.v4i4.5345>
- Sulfemi, W. B., & Yuliani, N. (2019). Model Pembelajaran Contextual Teaching and Learning (Ctl) Berbantu Media Miniatur Lingkungan untuk Meningkatkan Hasil Belajar IPS. *Edunomic:Jurnal Ilmiah Pendidikan Ekonomi*, 7(2), 73–84. <https://doi.org/http://dx.doi.org/10.33603/ejpe.v7i2.1970>
- Utomo, T., Wahyuni, D., & Hariyadi, S. (2014). Pengaruh Model Pembelajaran Berbasis Masalah (Problem Based Learning) Terhadap Pemahaman Konsep dan Kemampuan Berpikir Kreatif Siswa (Siswa Kelas Viii Semester Gasal SMPN 1 Sumbermalang Kabupaten Situbondo Tahun Ajaran 2012/2013). *Jukasi : Jurnal Edukasi*, 1(1), 5–9.
<https://doi.org/https://doi.org/10.19184/jukasi.v1i1.1025>