THE EFFECT OF USING PEER TUTOR METHODS AND SELF-EFFICACY ON MATH LEARNING OUTCOMES

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Abstract: The present study aims to identify the implementation of a peer-tutor method and self-efficacy towards the students' mathematics learning outcomes. This experimental study involved two classes (each consisting of 35 students) as the research sample, which were extracted by a simple random sampling technique. Moreover, the data were analyzed by descriptive analysis, two-way Anova, and Tukey test. The study involved variables as follows: the peer tutor method was the experiment variable, the lecture method was the control variable, and the moderator variable was the self-efficacy indicator that was analyzed using instruments of learning outcomes test and questionnaire. The results reveal that: a) the learning outcomes of experiment class (peer tutor method) is higher than control class (lecture method); b) there is an interaction between the learning method and self-efficacy towards the learning outcomes; c) students with higher self-efficacy have higher learning results when taught by peer-tutor method compared to those who were taught by lecture method; d) for those with lower self-efficacy, both peer-tutor and lecture method generate similar learning results; e) for subjects like mathematics, peer-tutor method is suggested.

Keywords: Self-Efficacy, Mathematics Learning Outcomes, Peer-Tutor

Abstraks: Penelitian ini bertujuan untuk mengetahui pengaruh pengunaan metode Tutor Sebaya dan efikasi diri terhadap hasil belajar matematika. Metode penelitian yang digunakan adalah metode eksperimen, dengan sampel dua Kelas, dengan masing-masing berjumlah 35 orang siswa. Sampel penelitian diambil secara acak sederhana, dan data dianalisis dengan analisis deskriptif, anava dua jalur dan uji Tukey. Variabel penelitian yang digunakan adalah metode tutor sebaya sebagai variabel eksperimen, sedangkan metode ceramah sebagai variabel kontrol, dan sebagai variabel moderatornya adalah efikasi diri, instrumen penelitian menggunakan instrument tes hasil belajar dan kuesioner (efikasi diri). Hasil penelitian menunjukkan : a) hasil belajar matematika siswa yang menggunakan metode tutor sebaya lebih tinggi dari pada yang menggunakan metode ceramah; b) terdapat interaksi antara metode pembelajaran dan efikasi diri terhadap hasil belajar matematika; c) untuk siswa yang mempunyai efikasi diri tinggi, hasil belajar matematika siswa yang menggunakan metode tutor sebaya lebih tinggi dari pada yang menggunakan metode ceramah; d) untuk siswa yang mempunyai efikasi diri rendah, hasil belajar matematika siswa yang menggunakan metode tutor sebaya "sama" dengan yang menggunakan metode ceramah; e) untuk pelajaran seperti matematika disarankan tidak lagi menggunakan metode ceramah lagi.

INTRODUCTION

The advancement in science and ICT has embedded human beings the ease of access to everyday chores; such a development has also assisted the life of students worldwide. The technological advancements in education enable the learning process to enhance its ease of implementation and entertainment aspect thanks to the e-based learning facilities, e.g., e-book, e-library, e-mail, and other e-based platforms: Zoom, Google Classroom, and others. Due to the presence of such platforms, students can now learn anywhere, anytime, and from any source. In spite of that, a sense of emotional bond is lost during online learning, as the teachers and the students cannot meet and interact with each other. This emotional sense is irreplaceable in a virtual communication where all participants are separated by a screen.

The learning process still requires an intense and adaptive interpersonal interaction between teachers and students (Konrad & Gabrijelcic, 2014). In this regard, this kind of interaction is needed in a mathematics subject since students are expected to finish a mathematics problem, and one of the effective methods to do so is to discuss/cooperate with their peers. Students feel more comfortable asking questions to their peers compared to asking the teacher. A study by Intriana and Mutmainnah shows that the implementation of the peer-tutor method in finance/accounting subjects can enhance the students' learning outcomes (Intriana & Mutmainnah, 2014). It is found that the students were worry-free to cooperate with their peers compared to asking directly to the teachers. With peers acting as tutors, the teachers are free from overburden and are free to supervise the learning process.

Mathematics is a science that studies related to the process of calculation and measurement stated with numbers or symbols (Sinaga & Suherman, 2017). Mathematics is one of the subjects to be mastered by all students. The mathematics learning outcome of students in VIII Class students of SMP 3 State Junior High School in Bekasi from 2016/2017 to 2018/2019 was yet to achieve the minimum mastery criteria. The data of learning outcomes are presented in the following Table 1.

Table 1. Average Mathematics Learning Outcomes Score of Students in SMP 03 State Junior High School in Bekasi Academic year of 2016/2017 - 2018/2019

Academic Year	End-Semester Learning Outcomes	Minimum Mastery Criteria	Description
2016/2017	63	75	Poor
2017/2018	65	75	Poor
2018/2019	68	75	Poor

Source: Administrative Department of SMP 03 Bekasi

From the above table, the students' learning outcomes were at 65 on average, or below the minimum standard of 75. As based on the rationale, the study aims to identify an appropriate learning method to enhance students' motivation to learn mathematics subjects, as opposed to the current lecture. The present study intends to identify the implementation of an alternative method instead of the current lecture method to enhance students' learning motivation and learning outcomes in mathematics subjects to achieve a minimum score of 75 or more. The present study employs a peer-tutor as the experiment variable, while the lecture method and self-efficacy are treated as the control variable and moderator variable, respectively.

The learning outcome is the manifestation of students' achievements as well as the indicator of teachers' success in education (Yusuf, 2015). In line with that, Purwanto argues that learning outcome is the students' behavioral change as a result of learning (Purwanto, 2013). On top of that, Bloom in his handbook, explains that learning outcomes involve cognitive, affective, and psychomotor aspects (Bloom, 1974). Therefore, the study concludes that learning outcome is the change that occurs in students' behavior in cognitive, affective, and psychomotor aspects. The cognitive aspect in learning outcomes involves memory (C1), comprehension (C2), implementation (C3), analysis (C4), evaluation (C5), and creativity (C6) (Krathwohl, 2001). In the context of mathematics learning, the learning outcomes mainly focus on memory, comprehension, implementation, and analysis in the Pythagorean theorem topic. Nurhayati & Khasanah explained that the results of learning mathematics students taught with problem-solving methods are higher than the results of learning mathematics students are taught with expository methods (Nurhayati & Khasanah, 2018). From the previous notions, the mathematics learning outcome is seen as a relatively permanent change of students' cognition after conducting the mathematics learning process for a semester in aspects of memory, comprehension, implementation, and analysis in the Pythagorean theorem topic.

The Peer-tutor method, in general, is a knowledge-sharing method that involves students with supervision from teachers. Peer-tutor is the guidance or assistance provided by a student to his/her peers (Harsanto, 2017). Indrianei defines peer-tutor teaching as the method to optimize the ability of students who excel in a subject to share insights to their peers who lack academic ability, thus allowing students to progress together to achieve the learning objectives

(Indriani, 2015). On top of that, Sudrajat states that the peer-tutor method is the learning activity conducted by a student who performs better academically than one's peers (Sudrajat, 2011). In Handbook for Peer Tutors (2017), peer-tutor is defined as the opportunity for students to be connected under the following circumstances: a) to discuss new information and concepts, b) to review discussed materials, c) to reinforce old materials, d) to prepare for an examination, e) to gain insights regarding the learning topic or f) to teach peers who need additional guidance. Further, Anggorowati states that peer tutor is an alternative source of learning besides teachers; it comprises fellow friends or peers that excel academically (Anggorowati, 2011). This situation is expected to lessen the awkward feeling that might occur in the lecture method situation. In the peer-tutor method, the students are free from the feeling of reluctance, inferiority, and ashamed to ask or to consult. From the above description, the peer-tutor method is the learning method that employs students who perform better academically to provide insights and assistance to peers who lack academic competence in a similar topic.

The lecture method is one of the popular teaching methods implemented in schools; in addition to the simple preparation, the method does not need any specific tools or long duration to prepare. In the lecture method, the center of activity is the teacher; some of the students might feel bored, less engaged, and reliant on the teacher; therefore, they lack the self-reliance and independence to conduct a self-study. According to Helmiayati lecture method involves oral dissemination of information and knowledge towards a group of audience to achieve a particular learning objective (Helmiayati, 2012). Suparman (elaborates that the lecture method involves one-way dissemination of information followed by question sessions regarding the learned topic. Suparman also highlights the lack of lecture method in several aspects: a) lack of students' participation, b) lack of monitoring mechanism on students' progress and c) inability to identify students' attention and interest in learning (Suparman,2012). Elaborates that the lecture method is the oral explanation of lessons conducted by a teacher in front of the class (Hamzah, 2014). Hamzah further mentions the phases of lecture method, involving: a) teacher prepares the learning materials and contents; b) teacher explains the learning materials while the students listen to the teacher's explanation; c) students focus on listening to the teacher's explanation and do not need to jot down anything, and d) after conducting lecture method, the teacher allows the students to ask or to write down the learning materials. Therefore, the lecture method is a method of presentation that emphasizes the oral dissemination from teachers to one's students; in lecture method, the teacher is the center of activity with a dominant role in the class, and the student's participation is limited.

Self-efficacy is the concept of self assurance of conducting an action that pleasures one self. According to Yusuf, self-efficacy is the key component of self-system as the factor of cognitive structure (Yusuf, 2013). It aims to control

the behavior and design the functions of perception, evaluation, and regulation of behavior. By self-efficacy, a person is expected to be able to control oneself in all situations. Mahmudi & Suroso opine that self-efficacy is an individual's assurance of one's ability to complete academic tasks as based on one's awareness of the importance of education (Mahmudi & Suroso, 2014). According to Mulyadi et al, self-efficacy is an individual's evaluation of one's ability and competence to accomplish a task to achieve an objective or to overcome a hindrance (Mulyadi et al, 2018). In education context, students with low self-efficacy can often decrease their own learning motivation that will lead to their own failure in learning. According to Sahuni et al there are 2 (two) factors that can affect student learning out comes, such as: internal factors and external factors of students; finternal actors of students other concern the characteristics of students inherent in the student itself due to heridity (genetik) or environmental influences, such as: breedt, interests, IQ, EQ etc.,and self effication included in the category of internal factors of students (Sahuni et al, 2020).

Further, Mulyadi et al. point out that self-efficacy is measurable; the measurement of self-efficacy involves several aspects: a) academic self-efficacy (an individual's ability to control one's learning process), b) social self-efficacy (one's ability to control social relations), c) self-efficacy to stand against pressure from other sides. As based on previous notions, the authors see self-efficacy as the self-assurance of an individual on one's ability to control and evaluate one's performance in the context of a) accomplishing tasks to achieve a particular goal; b) overcoming obstacles; c) assessing one's competence in facing a challenge; and d) evaluating one's general competence in a particular field of expertise.

As based on the previous notions, the study posits four hypotheses: 1) the class that implements the peer-tutor method results in higher learning outcomes compared to those that implements lecture method; 2) there is an interaction between learning method and self-efficacy; 3) for students with high self-efficacy, implementation of peer-tutor method results in higher learning outcomes compared to lecture method; 4) for students with low self-efficacy, implementation of lecture method results in higher learning outcomes compared to peer-tutor method.

METHOD

The experimental study with 2x2 factorial design, with the mathematic learning outcomes being its independent variable. In addition, the independent variables comprised the peer-tutor method as the experiment variable, the

lecture method as the control variable, and self-efficacy as the moderator variable. Two classes (experiment class and control class), each consisting of 35 students, were involved as the research samples by purposive sampling technique. In each class, there were groups of students with high self-efficacy and low self-efficacy (each at 40%). A questionnaire was handed to students in both classes to measure the self-efficacy level as well as the mathematics learning outcomes. By this method, four groups were classified: a) students with high self-efficacy who learn by peer-tutor method; b) students with high self-efficacy who learn by lecture method; c) students with low self-efficacy who learn by peer-tutor method; and d) students with low self-efficacy who learn by lecture method.

Table 2. 2x2 Factorial Experiment Design

Self-Efficacy (B)	Learning Method (A)	
	Peer-tutor Method (A_1)	Lecture Method (A_2)
High self-efficacy (B_1)	$A_1 B_1$ (14 students)	$A_2 B_1$ (14 students)
Low self-efficacy (B_2)	$A_1 B_2$ (14 students)	$A_2 B_2$ (14 students)

RESULTS

The results of descriptive analysis on the indicators of mean, mode, standard variation, variance, range, maximum score, and minimum score are displayed in the following Table 3.

Table 3. Recapitulation of Mathematics Learning Outcomes Score at Each Group

		HB A1	HB A2	HB B1	HB B2	HB A1B1	HB A1B2	HB A2B1	HB A2B2
N	Valid	28	28	28	28	14	14	14	14
	Missing	0	0	0	0	14	14	14	14
Mean		**62.04**	**52.00**	**65.00**	**49.21**	**75.00**	**49.07**	**54.64**	**49.36**
Median		58.00	47.00	75.00	48.50	80.50	47.50	44.50	48.50
Mode		55.00	42,00[a]	82.00	42,00[a]	58,00[a]	42,00[a]	42,00[a]	45,00[a]
Std. Deviation		18.60	16.30	21.28	10.36	13.86	12.81	21.87	7.66
Variance		345.81	265.70	452.74	107.29	192.15	164.07	478.10	58.71
Range		61.00	56.00	69.00	48.00	40.00	48.00	56.00	24.00
Minimum		34.00	26.00	26.00	34.00	55.00	34.00	26.00	37.00
Maximum		95.00	82.00	95.00	82.00	95.00	82.00	82.00	61.00

As based on the previous table, the average learning outcomes score for the peer-tutor group is higher A_1 = 62,04 than the control group A_2 = 52,00. This

signifies that the implementation of the peer-tutor method yields higher learning outcomes score than the lecture method.

The descriptive analysis results also indicate that students with high self-efficacy B_1 obtained an average learning outcomes score of 65.00, while students with low self-efficacy B_2 only obtained an average learning outcomes score of 49.21. This finding highlights that students with high self-efficacy (or assurance of oneself) perform comparably better than those with low self-efficacy.

Hypothesis Testing *before* ANOVA and Tukey testing, a homogeneity test was employed to test whether or not the research samples have homogenous variance; a normality test was also conducted to test the distribution of the population. The Levene homogeneity test shows that the samples are homogenous, while the Kolmogorov-Smirnov test indicates a normally distributed population. The two-way ANOVA analysis on the influence of peer-tutor and lecture methods towards the mathematics learning outcomes as well as the influence of interaction between the learning methods and self-efficacy on mathematics learning outcomes is presented in Table 4 below.

Table 4. ANOVA Comparison Test of Learning Method Group, Self-Efficacy Group, and Effect of Interaction on Mathematics Learning Outcomes Score

Source	Type III Sum of Squares	df	Mean Square	F	Sig.
Corrected Model	2608,214[a]	3	869.405	8.039	.000
Intercept	168301.786	1	168301.786	1556.133	.000
Learning_method	1420.071	1	1420.071	13.130	.001
Self_efficacy	672.071	1	672.071	6.214	.016
Learning_method * Self_efficacy	516.071	1	516.071	4.772	.033
Error	5624.000	52	108.154		
Total	176534.000	56			
Corrected Total	8232.214	55			

a. R Squared = ,317 (Adjusted R Squared = ,277)

As based on the Table 4, the peer-tutor method has degree of significance α that is smaller than the value of $F_{table(0,05)}$ (0.001 < 0.05) and F_{count} value larger than $F_{table(0,05);1;52}$ (13.130 > 4.03). In other words, the peer-tutor method influences the mathematics learning outcomes and shows higher learning outcomes score compared to the lecture method. This is also supported by the descriptive analysis result which shows that the learning outcomes of A1 group > A2 group (or 62.04 > 52.00); thus, the first hypothesis is accepted. Moreover, the influence of the interaction of learning method and

self-efficacy on learning outcomes shows significant with the p-sig value that is smaller than $sig\ \alpha = 0,05$ (0,033 < 0,05) and F_{count} larger than F_{table} (4.772 > 4.03). In other words, the second hypothesis is accepted.

Provided in Table 5 below is the Tukey test result on the influence of learning method and self-efficacy on learning outcomes.

Table 5. ANOVA Tukey Multiple Comparison Test Result

Tukey HSD		Mean Difference (I-J)	Std. Error	Sig.	95% Confidence Interval	
					Lower Bound	Upper Bound
Experiment-High efficacy (A1B1)	Experiment-Low efficacy	13,00000*	3.93072	.009	2.5675	23.4325
	Control-High efficacy (A2B1)	16.14286*	3.93072	**.001**	5.7103	26.5754
	Control-Low efficacy	17,00000*	3.93072	.000	6.5675	27.4325
Experiment-Low efficacy (A1B2)	Experiment-High efficacy	-13,00000*	3.93072	.009	23.4325	-2.5675
	Control-High efficacy	3.14286	3.93072	.854	-7.2897	13.5754
	Control-Low efficacy (A2B2)	4.00000	3.93072	**.740**	-6.4325	14.4325
Control-High Efficacy (A2B1)	Experiment-High efficacy (A1B1)	-16,14286*	3.93072	**.001**	26.5754	-5.7103
	Experiment-Low efficacy	-3.14286	3.93072	.854	13.5754	7.2897
	Control-Low efficacy	.85714	3.93072	.996	-9.5754	11.2897
Control-Low efficacy (A2B2)	Experiment-High efficacy	-17,00000*	3.93072	.000	27.4325	-6.5675
	Experiment-Low efficacy (A1B2)	-4.00000	3.93072	**.740**	14.4325	6.4325
	Control-High efficacy	-0.85714	3.93072	.996	11.2897	9.5754

*. Correlation is significant at the 0.05 level (2-tailed).

Further, as illustrated in Table 5, the Comparison between the A1B1 group (peer-tutor method and high self-efficacy) and A2B1 (lecture method and high self-efficacy) shows that the value of sig = 0,001 is smaller than a degree of $sig\ \alpha = 0,05$ (0,001 < 0,05). The numbers suggest that in students with high self-efficacy, the average learning outcomes score is higher in the class that implements peer-tutor method compared to the lecture method. That being mentioned, the third hypothesis is accepted. It is also supported by the data in Table 3, that the average learning outcomes score of the A1B1 group is larger than the A2B1 group, or 75.00 > 54.64.

Further, the Tukey test evaluating the A1B2 and A2B2 groups shows that the value of $Sig = 0,74$ is larger than $sig\ \alpha = 0,05\ (0,740 > 0,05)$. This signifies that the value is insignificant since the sig value of 0.740 is smaller than 0.05. Therefore, the fourth hypothesis is rejected, since the peer-tutor and lecture method yielded similar results in students with low self-efficacy. The argument is in line with the data in Table 3, showing that the learning outcomes score of the A1B2 and A2B2 groups is similar (49.07 = 49.36).

DISCUSSION

The results show that the first, second, and third hypotheses are accepted. The hypotheses are a) the class that implements peer-tutor method results in higher learning outcomes compared to those that implements lecture method; 2) there is an interaction between learning method and self-efficacy; 3) for students with high self-efficacy, implementation of peer-tutor method results in higher learning outcomes compared to the lecture method. This is in line with Intriana and Mutmainnah's (2014) study on the implementation of the peer-tutor method to increase students' learning outcomes. The study finds out that the peer-tutor method enables a space of intimacy between the students; such a result implies the increase to learning motivation and self-efficacy. Further, Ahdiat (2014, p.78) shows that the peer-tutor method yields better results on students' learning outcomes compared to the classical method.

There is an interaction between self-efficacy and learning methods on mathematics learning outcomes; this implies that different learning methods will result in different learning outcomes. That said, the teachers must pay attention to the learning method; a proper learning method must adjust to the characteristics of students, learning material, and learning facilities.

The results show that in students with high self-efficacy, the peer-tutor method yields a better average learning outcomes score compared to the lecture method. This is due to the peer-tutor method's ability to strengthen the students' self-efficacy. By that, students with high self-efficacy will accomplish all the tasks effectively and result in better learning outcomes. This is supported by Mulyadi et al who find out that students with high self-efficacy have good self-control and accomplish all the tasks diligently (Mulyadi et al, 2018). Further, Permana argues that students with high self-efficacy tend to: a) involve directly in finishing an assignment, b) accomplish all tasks regardless of the difficulty level, c) see failure as a result of lack of effort, knowledge, and skill, d) be persistent in completing all the assignments, e) believe in ones' ability, f) show little signs of hesitation, g) seek for new situations (Permana et al, 2016).

The results of this study indicate that for students who have "low" self-efficacy, the average learning outcomes of mathematics taught by the peer tutoring method is at 49.07, or similar to the results of the lecture method (at

49.36); this shows that the lecture method for mathematics subject matter is no longer relevant and not recommended to be implemented, particularly in mathematics subject. Several research results report that the lecture method is no longer effective in stimulating students' motivation, creativity, and confidence as the demanded characteristics amid the 4.0 or 5.0 industry era. For this reason, it is recommended that the peer tutor method be implemented instead of the lecture method. Djamarah et al assert that the implementation of the peer-tutor method should consider these aspects: a) students' acceptance of the method to prevent any hesitations in asking questions; b) the teacher's ability to explain the learning materials; c) removal of arrogance or bad behavior between students; d) the teachers' creativity to support the learning process (Djamarah et al, 2010).

CONCLUSIONS

The research highlights several conclusions: a) learning method (external factor) and self-efficacy (internal factor) influence the students' learning outcomes; b) students taught with the peer-tutor method have better learning outcomes score compared to those taught with lecture method; c) there is an interaction between learning method and self-efficacy towards students' learning outcomes; d) for students with high self-efficacy, peer-tutor method results in better learning outcomes compared to lecture method; e) for students with low self-efficacy, the learning outcomes of students taught with peer-tutor method and lecture method are similar; f) in sciences subjects such as mathematics, peer-tutor method is recommended due to its capability of increasing the students' learning motivation, creativity, and self-efficacy. This will in turn enhance their learning outcomes score.

REFERENCES

Ahdiyat M. (2014). Metode Tutor Sebaya Untuk Meningkatkan Hasil Belajar Matematik pada Materi Pengeolahan Data [*Implementation of Peer-tutor Method to Increase Students' Mathematics Learning Outcomes in Data Processing Topic*]. *Jurnal Formatif*, 4 (1),71-79.

Ahmad Sudrajat, A. (2011) *Kurikulum Dan Pembelajaran Terbaru [Updated Curriculum and Teaching]*. Yogyakarta: Paramitha.

Anderson,L.W. & Krathwohl D. R . (2001). *A Taxonomy for Learning, Teaching, and Assessing. A Revision of Bloom's Taxonomy of Education Objectives*. New York: Longman.

Anggorowati N.P. (2011). Penerapan *ModePeerrl* Pembelajaran Tutor Sebaya Pada Mata pelajaran Sosiologi [*Implementation of Peer-tutor Method in Sociology Subject*]. *Jurnal Komunitas*, 3 (1), 103 – 120. http://journal.unnes.ac.id/nju/index.php/ komunitas.

Anonim. (2017). *Handbook for Peer Tutors.* Bureau of Study Counsel. Massachusetts: Harvard University.

Bloom, B. (1974). *Handbook Taxonomy of Educational Objectives; The Classification of Educational Goals.* New York: David Maker Company.Inc.

Djamarah, Bahri, S & Zain, A. (2010). *Strategi Belajar Mengajar [Teaching-Learning Strategies].* Jakarta: Rineka Cipta

Hamzah, Ali & Muhlishrarini (2014). *Perencanaan dan Strategi Pembelajaran Matematika.* Jakarta: Raja Grafindo Persada.

Helmiyati. (2012). *Model Pembelajaran [Learning Models].* Yogyakarta: Aswaja Pressindo.

Indriani, A., M., F. & Mutmainnah, S. (2014). Metode Pembelajaran Tutor Sebaya Sebagai Upaya Meningkatkan Hasil Belajar Siswa [*Implementation of Peer-tutor Method to Increase Students' Learning Outcomes*]. *Journal of Accounting and Business Education*, 2 (2), 1-12. doi:http://dx.doi. org/10.26675/ jabe.v2i26057.

Indrianie. N. S. (2015). Penerapan Metode Tutor Sebaya Pada Mata Pelajaran Bahasa Inggris [*Implementation of Peer-tutor Method in English Subject*]. *Jurnal Kebijakan Dan Pengembangan Pendidikan,* 1 (1), 126-132.

Konrad, S.C & Gabrijelčič, M. K. (2014). Importance of Emotional Intelligence in Teacher Profesional Development. *Didactica Slovenica*, 29 (2), 3 – 17.

Mahmudi, M. H. & Suroso. (2014). Efikasi Diri Dukungan Sosial Dalam Penyesuaian Diri Dalam Belajar [*Self-efficacy and Social Support in Self-Adjustment in Learning*]. *Jurnal psikologi Indonesia*, 3 (2), 184 – 186.

Mulyadi, S, Basuki A.M.H., Raharjo, W. (2018*). Psikologi Pendidikan [Educational Psychology].* Depok: PT Raja Grafindo.

Nurhayati & Khasanah (2018). Pengaruh Metode Pembelajaran Pemecahan Masalah dan Gaya Kognitif Terhadap Hasil Belajar, *Akademika : Jurnal Teknologi Pendidikan, 7 (1), 43-71.* https://doi.org/10.34005/akademika.v7i01

Permana H., Harahap F. & Astuti B. (2016). Hubungan Antara Efikasi Diri Dengan Kecemasan Dalam Menghadapi Ujian Pada Siswa kelas IX Di MTS Al Hikmah Brebes [*Correlation between Self-efficacy and Anxiety in Ninth-grade Students during Exam in MTS AL-Hikmah Brebes*]. *Jurnal Hisbah,* 13 (1), 51-68.

Purwanto. (2013). *Evaluasi Hasil Belajar [Learning Outcomes Evaluation].* Yogyakarta: Pustaka Pelajar.

Ratno Harsanto, R. (2017). *Pengelolaan Kelas Yang Dinamis [Dynamic Class Management].* Yogyakarta: Kanisius.

Sahuni, Budiningsih, I. and Marwani P.L. (2020). Interaksi Media Pembelajaran Dengan Minat Belajar Terhadap Hasil Belajar Bahasa Arab, 9 (2), 43-52. DOI: 10.34005/akademika.v9i02.871

SinagaA., & SuhermanU. (2017). Pengaruh Model Student Team Achievement Divisions (STAD) Dan Berpikir Kritis Terhadap Hasil Belajar Matematika. *Akademika : Jurnal Teknologi Pendidikan*, *6*(01), 59-72. https://doi.org/10.34005/akademika.v6i01.136

Suparman, M. A. (2012). *Desain Instruksional Modern. Panduan Para Pengajar & Inovator Pendidikan [Modern Instructional Design: Guidelines of Teachers and Education Innovators]*. Jakarta:Erlangga.

Yusuf, Muri. (2015). *Asesmen dan Evaluasi Pendidikan [Education Assessment and Evaluation]*. Padang: Prenamedia Grup.

Yusuf, S. (2013). *Teori Kepribadian [Behavior Theory].* Bandung: PT. Remaja Rosdakarya.