



The Effectiveness Of The Missouri Mathematics Project Model on Creative Thinking Ability and Self-Efficacy

Ayu Faradillah*, Amanda Purwitasari

University of Muhammadiyah Prof. DR. Hamka, Jl. Tanah Merdeka No.20, RT.11/RW.2, Rambutan, Kota Jakarta Timur 13830, Indonesia.

*ayufaradillah@uhamka.ac.id

© 2022 JIPM (Jurnal Ilmiah Pendidikan Matematika)

This is an open access article under the CC-BY-SA license

(<https://creativecommons.org/licenses/by-sa/4.0/>) ISSN 2337-9049 (print), ISSN 2502-4671 (online)

Abstrak: Kemampuan untuk berpikir kreatif matematis dapat dikatakan sebagai kapabilitas kognitif untuk mengajukan dan mempertimbangkan informasi sehingga dapat memberikan perbedaan dari gagasan serta menjadikan pengetahuan yang baru dalam menunjang keberhasilan dalam pembelajaran. Penelitian ini disusun dengan maksud agar dapat memahami bagaimana model pembelajaran Missouri Mathematics Project (MMP) dapat bekerja efektif pada kemampuan berpikir kreatif matematis dan Self-Efficacy yang ada pada diri siswa SMA. Penulisan ini diaplikasikan dengan memakai metode eksperimen semu. Subjek penelitian terdiri dari 80 siswa, dimana setiap kelas eksperimen maupun kelas kontrol memiliki jumlah sebanyak 40 siswa yang dipilih secara purposive. Perhitungan dalam bahasan jurnal ini berasal dari instrumen kemampuan berpikir kreatif matematis dan efikasi diri. Penelitian ini memakai analisis data Mann Whitney U Test, Cohen's d Effect Size Test dan Spearman Correlation guna mengetahui perbedaannya. Berdasarkan data yang ditemukan, menunjukkan hasil yang menyatakan bahwa pengaruh berada pada kategori besar dan memiliki hubungan yang baik. Sedangkan siswa di kelas MMP didominasi oleh kategori efikasi diri tinggi. Dengan demikian, siswa yang melakukan pembelajaran matematika dengan model MMP mempunyai kemampuan untuk dapat berpikir kreatif matematis yang lebih unggul jika membandingkannya dengan siswa lain yang memanfaatkan cara konvensional.

Kata kunci: Kemampuan Berpikir Kreatif Matematis; Missouri Mathematics Project; Self-Efficacy

Abstract: Creative thinking ability are cognitive abilities in proposing and considering information so that they can provide different ideas and become new knowledge in supporting success in learning. The purpose of this study was to determine the effectiveness of the Missouri Mathematics Project (MMP) learning model on the mathematical creative thinking ability and self-efficacy of high schooler. This study used a quasi-experimental method. The subjects of this study amounted to 80 students, where each experimental class and control class amounted to 40 students who were selected purposively. The calculations in this study came from the instruments of mathematical creative thinking ability and self-efficacy. Data analysis in this study used the Mann-Whitney U Test, Cohen's d Effect Size Test, and Spearman Correlation to determine the difference. Based on the data obtained, the study results indicate that the effect is in a large category and has a good relationship. Meanwhile, the high self-efficacy category dominated students in the MMP class. Therefore, students with learn mathematics using the MMP learning model have better mathematical creative thinking skills than students with conventional mathematics learning.

Keywords: Creative Thinking Ability; Missouri Mathematics Project, Self-Efficacy

Introduction

Mathematics creative thinking ability is one of the mathematical thinking skills that must be developed in students in solving problems (Lince, 2016; Ningsih et al., 2021). Mathematics is a subject that can help students improve their ability to plan, anticipate and decide problems (Phonapichat et al., 2014). This is in line with the objectives of learning mathematics, namely helping students mathematical creative thinking skills in problem-solving, drawing conclusions, understanding, and developing thinking efficiently, precisely and in accordance with the concept (Mawaddah & Maryanti, 2016; Ulfah et al., 2017). Creative thinking ability is a cognitive ability in proposing and considering information so that it can provide different ideas or ideas and become new knowledge in supporting success in learning (Abdurrozak et al., 2016; Dilla et al., 2018; Johnson, 2002). As a result, mathematics creative thinking ability are an important aspect, so students are required to understand/master the material, solve problems and come up with ideas or ideas (Suherman et al., 2021; Suripah & Sthephani, 2017).

However, reality indicates the students' ability to think mathematics creatively is relatively low. According to the results of the examinations, students were unable to solve issue in a variety of ways, and only 11.67% of students provided answers in the two ways they were given (Putri et al., 2019). This implies that the students' mathematical creative thinking ability is still low. The reason is the ability to think creatively mathematically because teachers do not develop mathematical creative thinking skills in learning activities and teachers use learning models that can foster creative thinking so that students feel boring and scary (Fatah et al., 2016; Ginting et al., 2019; Saragih & Napitupulu, 2015).

In addition to the cognitive realm, the sphere of attitudes must be considered in learning. Several characteristics, particularly self-efficacy, can influence achievement efforts in boosting the success of mathematics creative thinking ability. Self-Efficacy is the belief that each individual must direct and find a solution in a situation, the belief includes self-confidence, cognitive capacity, intelligence and the capacity to act on the situation (Jendra & Sugiyo, 2020; Novena & Kriswandani, 2018; Regier & Savic, 2020). Self-efficacy has an important role for students in learning because, self-efficacy can be motivation that can affect self-confidence (Dogan et al., 2019; Hayati et al., 2019; Suciawati, 2019). Students with low self-efficacy believe they are unable to solve the problem at hand (Morán-Soto & Benson, 2018; Nurani & Alsa, 2021; Reyes & D, 2019; Siswanti & Djalal, 2018). The teacher has disclosed that most students lack confidence in their skills, which has an effect on learning (Masitoh & Fitriyani, 2018).

Choosing the right learning model, in accordance with the learning objectives will help and facilitate the teacher's learning process in the classroom (Handayani et al., 2018). Learning models can be used to improve students mathematical creative thinking skills and self-efficacy in mathematics. Missouri Mathematics Project (Hereinafter referred to as "MPP") is one of the learning method with predetermined steps and experience development that can help teachers in the effective use of exercises (Asfar et al., 2018; Rini & Purwanti, 2021). The MMP learning model is designed to help and provide freedom for teachers to use and improve mathematical creative thinking skills that make students interested in learning (Fauziah & Sukasno, 2015; Sofyan, 2021). The MMP learning model is given to foster cooperation with friend, high motivation that creates enthusiasm for learning mathematics in students (Marliani, 2015; Prihandhika et al., 2018).

MMP learning on mathematical creative thinking skills and students self-efficacy, as well as research on MMP learning models on self-efficacy problem solving skills, demonstrates that students with high self-efficacy can comprehend, plan, and implement problems correctly and thoroughly; therefore, the model MMP learning is effective for problem solving (Ulya & Hidayah, 2016). Then research on the MMP model of

mathematical literacy skills with an open-ended approach that the mathematical literacy ability of the upper group is very good using an open-ended approach assisted by whatsapp, while the medium and low groups are in the medium and sufficient category (Winardi & Dwijanto, 2017). Research on self-efficacy on creative thinking ability shows that there is a positive influence between self-efficacy and creative thinking ability, the higher a person's self-efficacy, the more persistent the efforts made when faced with difficulties or problems (Suciawati, 2019).

As a results, there is a gap in this study because no research has been undertaken on mathematics creative thinking ability and self-efficacy in high school students. So the novelty in this research about the effectiveness of the MMP learning model on the mathematically creative thinking ability and self-efficacy of high schooler. This study aims to determined the effectiveness of the model mathematical creative thinking ability and self-efficacy of high schooler.

Methods

Design Research

This type of research is a quasi-experiment with quantitative methods that use treatment to find the effect. The study used two sample classes, namely an experimental class using the MMP learning model and control class using the conventional learning model. The design used is Posttest Only Control Group Design (Hardani et al., 2020). Can be describe in the following table.

Table 1. Research Design.

Class	Treatment	Posttest
Experiment	X_1	O_1
Control	X_2	O_2

Table 1 shows the design of the Posttest Only Control Group where x_1 and x_2 are the treatment given. x_1 is the treatment using the MPP learning model while the x_2 is the treatment in the control class using conventional.

Subject

This research was carried out at one the Senior High Schools (SMA) in Jakarta, namely SMAN 64 Jakarta in the 2021/2022 school year. Purposive sampling techniques were used to select 280 students from the 11th grade to make up the population. The research objectives are used to guide the selection of a sample, which is the first step in the sampling process (Hardani et al., 2020).

The samples for this study were drawn from two distinct classes: the experimental class which included 40 students from class XI IPS 3, and the control class, which included 40 students from class XI IPS 4.

Instrument

This study's data was gathered utilizing both test and non-test equipment. A posttest description test with up to four questions based on the indicators was used to assess students' mathematical creative thinking ability (Abdurrozak et al., 2016), namely.

Table 2. Indicators of Mathematical Creative Thinking Ability.

Criterion	Indicators
Fluency	1. Fluent to express an idea. 2. Answering questions with answers. 3. The problem that occurs has a lot of ideas.
Flexibility	1. If given a problem, students can come up with numerous solutions. 2. Provide a variety of interpretations of a problem.
Originality	1. Able to generate unique new expressions. 2. Determine the variation of interpretation of a problem.
Elaboration	1. Answer solved by doing detailed steps. 2. Ideas can be developed.

While this non-test instrument is used to measure the learner's level of self-efficacy through the use of a rating scale with responses such as strongly agree, agree, disagree, and strongly disagree, the test instrument is used to assess the learner's level of knowledge. The self-efficacy questionnaire consists of 19 statements adopted from (Hendriana et al., 2017). The self-efficacy indicators used are: 1) Magnitude, related to task difficulty; 2) Generality, related to the area of the task field or behavior; 3) Strength, related to the degree of strength and steadiness of a person towards beliefs.

Table 3. Self-Efficacy Instruments.

Indicator	Item	Many Item
Magnitude	1, 2, 3, 4, 25, 27	6
Generality	5, 6, 7, 8, 12, 14, 16	7
Strength	18, 19, 10, 21, 23, 28	6

Procedure

Before conducting the research, researchers carry out several stages in order to conduct research systematically and regularly. The following research stages are presented in a flow chart.

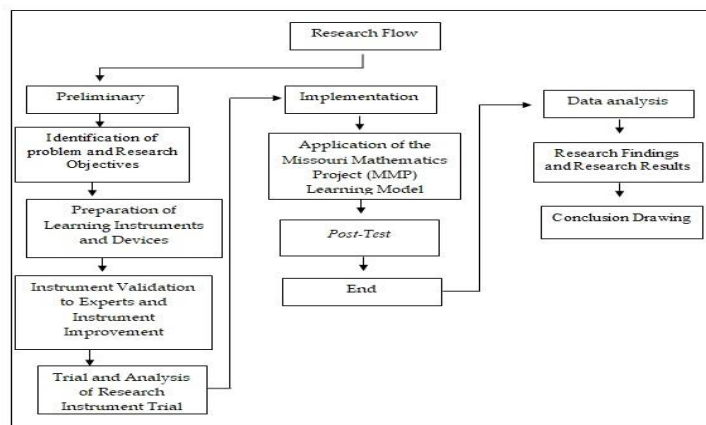


Figure 1. Research Flowchart

The instrument testing is carried out in two stages, the first test of the validity to determine whether the instrument to be used is valid and the second stage is the reliability test used to determine the instrument consistency to be used. In the validity test of mathematical creative thinking skills, valid questions are 7 out of 8 questions and validity tests of valid self-efficacy questionnaires as many as 19 of 28 statements. After the cell validation in the end, the next step is to conduct research in the Delay Experimental class using the MMP learning model and the control class using conventional learning. Reciting procedures become a reference in obtaining research findings and conclusions.

Data Analysis Technique

In this study, data were obtained using test and non-test instruments, and were analyzed using IBM SPSS 24 and non-parametric statistics in the form of the Mann Whitney and Cohen's d Effect Size tests. The Mann-Whitney test is a non-parametric test used to determine whether or not two populations differ, whereas the effect size evaluates the link between a variable and other factors. (Santoso, 2010; Suyanto & Gio, 2017).

Results and Discussion

After taking the research data and conducting the scoring and calculations, the collected data is then analyzed using statistics non-parametric in the form of Mann Whitney and Cohen's d Effect Size tests conducted through IBM SPSS 24.

Mann Whitney Test

The Mann-Whitney test is a non-parametric test that may be done to identify whether or not there is a difference between the two independent variables and this decrease. Additionally, the Mann-Whitney test can be used as an alternative to the t-test for two independent variables when the assumption of normality is not met (Suyanto & Gio, 2017). When the test criterion, Asymp. Sig. (2-tailed) > 0.05 are met at a 5% significance level, H_0 is accepted.

Summary results of the calculations of the Mann Whitney test, can be seen in table 4.

Table 4. Mann Whitney Results Mathematics Creative Thinking Ability and Self-Efficacy.

	Mathematical Creative Thinking Ability		Self-Efficacy	
	Experiment	Control	Experiment	Control
N	40	40	40	40
Mean	96.55	79.28	67.90	30.08
Mann Whitney	277.500		18.000	
Asymp. Sig. (2-tailed)	.000		.000	

According to table 4, it shows that mathematics in students of the experimental class with a mean of 96.55 significantly higher compared to control class students with a mean value of 79.28. It was later discovered that the value of Asymp. Sig. (2-tailed) .000 which is below 0.05 which indicates H_1 received. While self-efficacy in experimental class students

with a mean of 67.90 was significantly higher than in control class students with a mean of 30.08. Then it was known to Asymp. Sig (2-tailed) .000 which is below 0.05 which indicates H_1 received. It may be concluded that self-efficacy on students' mathematical creative thinking ability has an influence, because self-efficacy in mathematics tends to be more creative, namely having a lot of ideas in solving problems or have more than one way of solving the problem (Septiani et al., 2018).

The findings of the Mann Whitney test calculation using SPSS in table 4 between the control group and experiments on mathematics creative thinking capacity and self-efficacy revealed there was a big measurable difference between the two groups; the control class was lower than the experimental class. According to the findings of the research that was just finished being carried out, it has been determined that learning through the MMP learning model has such an impact on the students' ability for creative thought. This can be demonstrated by the fact that the mean value of the MCTA posttest for students in the control group who learned using traditional methods scored lower than the mean value for experimental group students who learned utilizing the MMP learning model (79.28 < 96.55).

Table 5. Cohen's d effect size Mathematical Creative Thinking Ability (MCTA) and Self-Efficacy

	Experimental Class		Control Class		D
	Mean	SD	Mean	SD	
MCTA	96.40	3.39	79	16.38	3.86
Self-Efficacy	67.9	14.91	69.3	11.8	0.3

Table 5, shows the value of the Cohen's d Effect Size test results based on the total score of the posttest instrument for mathematical creative thinking ability and questionnaire instruments Self-Efficacy. According to the data, the experimental class has a d value of 3.86 and belongs to the large category, whereas self-efficacy has an influence of 0.3 and is in the low grade (Sawilowsky, 2009).

According to the results of Cohen's d Effect Size in table 5, the MCTA posttest score and self-efficacy acquired in the experimental class utilizing the MMP learning model demonstrated influence. In line with the findings that state that learning with the MMP learning model affects students' mathematical thinking ability (Marliani, 2015).

Table 6. Spearman Correlation of MCTA and Self-Efficacy

		MCTA	Self-Efficacy
MCTA	Correlation Coefficient	1.000	.950**
	Sig. (2-tailed)	.	.000
	N	80	80
Self-Efficacy	Correlation Coefficient	.950**	1.000
	Sig. (2-tailed)	.000	.

N	80	80
---	----	----

** Significant correlation exists at the 0.01 level

Displayed in Table 6, the findings of the correlation test with the values obtained between the posttest score and self-efficacy in the experimental class with an MMP learning model of .000 smaller than 0.05 the value of the correlation coefficient of .950 with a percentage of 95% showing a strong correlation between MCTA and self-efficac. Thus, it shows a significant influence and correlation between MCTA and self-efficacy.

According to the results of the correlation test, it was discovered that MCTA and self-efficacy in the experimental group that made use of the MMP learning model had a significant impact on one another and are highly correlated ($r = .950 < 0.05$) and also the percentage is 95%. This implies a connection between self-efficacy and the ability for creative thought in experimental classrooms utilizing the MMP learning (Wulansari et al., 2019).

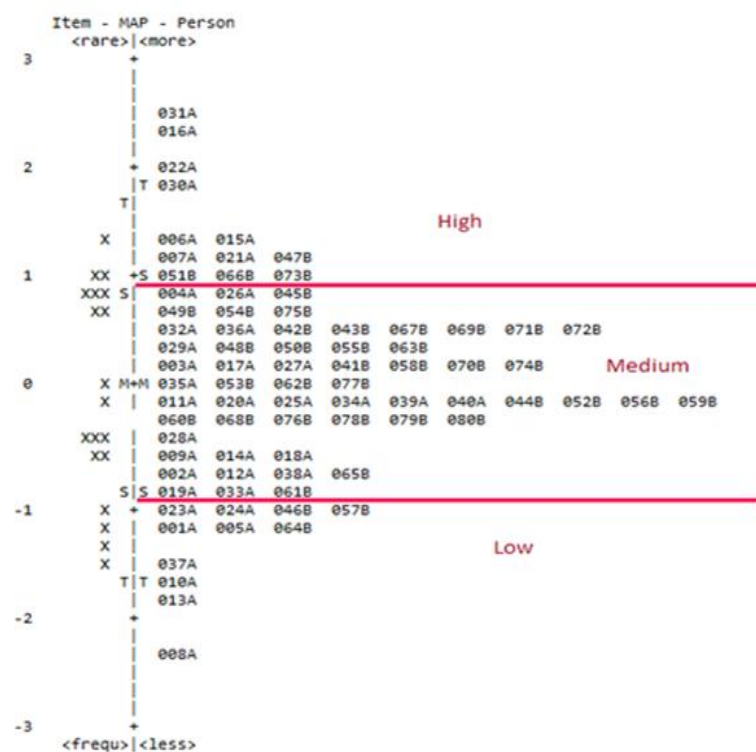


Figure 2. Output Wright Maps

Figure 1 compares 80 respondents who completed the survey and used WinSteps to analyze the results, including students with high high self-efficacy around 15% compared to 12 students, students with moderate self-efficacy around 71.25% with 57 students and students with low self-efficacy of 13.75% with 11 students.

Based on Right Maps self-efficacy in classes given MMP learning treatment with students with conventional learning students in figure 1, it can be known that the distribution of the highest student self-efficacy category is at moderate self-efficacy. A category comprising 71.25% of the total. Meanwhile high and low self-efficacy students had 15% and 13.75%, respectively. It can be deduced that students' ability to think creatively and independently in mathematics is related to their sense of self-efficacy. If self-efficacy is great, it follows that one's capacity for creatively thought will also be strong (Apriliya & Basir, 2019). Therefore, it can be claimed that the existence of creative learning models has an impact on this increase.

Conclusion

The Missouri Mathematics Project (MMP) learning paradigm for teaching mathematics has a strong impact on students' mathematical creative thinking skills and self-efficacy, exhibiting a broad range of influence and positive associations. The majority of students in the MMP class have a high level of self-efficacy. Compared to students who learn mathematics using conventional methods, students who use the MMP learning model show stronger mathematical creative thinking abilities. Students who use the MMP learning approach tend to have a high category of math self-efficacy, according to Wright Maps. Students who learn in a conventional way, self-efficacy dominates in the low category. This shows that children who use the Missouri Mathematics Project are superior to those using conventional learning. Based on research, teachers can use the MMP learning model to apply learning and other supporting media that can help the learning process. In the future, researchers can explore the media used in learning with more contrasting variables and subjects.

References

- Abdurrozak, R., Jayadinata, A. K., & 'atun, I. (2016). Pengaruh Model Problem Based Learning Terhadap Kemampuan Berpikir Kreatif Siswa. *Jurnal Pena Ilmiah*, 1(1), 871-880.
- Apriliya, & Basir, M. A. (2019). Analisis Kemampuan Berpikir Kreatif Matematis Siswa Pada Materi Matriks Ditinjau Dari Self-Efficacy. *Jurnal Pemikiran Dan Penelitian Pendidikan Matematika (JP3M)*, 2(2), 97-111.
- Asfar, A. M. I. T., Asfar, A. M. I. A., & Sartina. (2018). Modifikasi Model Pembelajaran Missouri Mathematics Project (MMP) Dengan Model Pembelajaran Explicit Intruction (EI) Dalam Meningkatkan Pemahaman Konsep Matematika Siswa. *Jurnal AKSARA PUBLIC*, 2(4), 23-38.
- Dilla, S. C., Hidayat, W., & Rohaeti, E. E. (2018). Faktor Gender dan Resiliensi dalam Pencapaian Kemampuan Berpikir Kreatif Matematis Siswa SMA. *Journal of Medives : Journal of Mathematics Education IKIP Veteran Semarang*, 2(1), 129-136.
- Dogan, Y. B., Akar, H., & UstUner, M. (2019). Examining the measurement invariance of the teachers' sense of self-efficacy scale in terms of gender. *International Journal of Evaluation and Research in Education*, 8(2), 213-220.
- Fatah, A., Suryadi, D., Sabandar, J., & Turmudi. (2016). Open-ended approach: An effort in cultivating students' mathematical creative thinking ability and self-esteem in mathematics. *Journal on Mathematics Education*, 7(1), 11-20.
- Fauziah, A., & Sukasno. (2015). Pengaruh Model Missouri Mathematics. *Infinity Jurnal Ilmiah Program Studi Matematika STKIP Siliwangi Bandung*, 4(1), 10-21.
- Ginting, E. B., Purwanto, S. E., & Faradillah, A. (2019). Pengaruh Model Pembelajaran Creative Problem Solving (cps) Terhadap Kemampuan Berpikir Kreatif Matematis Siswa. *Gammath: Jurnal Ilmiah Program Studi Pendidikan Matematika*, 4(1), 9-16.
- Handayani, I., Januar, R. L., & Purwanto, S. E. (2018). The effect of Missouri mathematics project learning model on students' mathematical problem solving ability. *Journal of Physics: Conference Series*, 948(1), 1-5.

- Hardani, Andriani, H., Ustiawaty, J., Utami, E. F., Istiqomah, R. R., Fardani, R. A., Sukmana, D. J., & Auliya, N. H. (2020). *Buku Metode Penelitian Kualitatif dan Kuantitatif* (H. Abadi (ed.); Issue Maret). CV. Pustaka Ilmu Group Yogyakarta.
- Hayati, E. D., Jalmo, T., & Yolida, B. (2019). Pengaruh Project Based Learning terhadap Peningkatan Kemampuan Berpikir Kreatif dan Self-efficacy. *Jurnal Bioterdidik: Wahana Ekspresi Ilmiah*, 7(3), 10–21.
- Hendriana, H., Roehati, E. E., & Sumarno, U. (2017). BUKU HARD SKILLS & SOFT SKILLS.pdf. In N. F. Atif (Ed.), *Hard Skills dan Soft Skills Matematik Siswa* (pp. 265–282). PT Refika Aditama.
- Jendra, A. F., & Sugiyo. (2020). Pengaruh Efikasi Diri Terhadap Kecemasan Presentasi Siswa Kelas XI di SMA Negeri 1 Wuryantoro. *KONSELING EDUKASI "Journal of Guidance and Counseling,"* 4(1), 138–159.
- Johnson, E. B. (2002). Contextual teaching and learning: what it is and why it's here to stay. *Choice Reviews Online*, 40(02), 40-1053-40-1053.
- Lince, R. (2016). Creative thinking ability to increase student mathematical of junior high school by applying models numbered heads together. *Journal of Education and Practice*, 7(6), 206–212.
- Marliani, N. (2015). Peningkatan Kemampuan Berpikir Kreatif Matematis Siswa melalui Model Pembelajaran Missouri Mathematics Project (MMP). *Formatif: Jurnal Ilmiah Pendidikan MIPA*, 5(1), 14–25.
- Masitoh, L. F., & Fitriyani, H. (2018). Improving students' mathematics self-efficacy through problem based learning. *Malikussaleh Journal of Mathematics Learning (MJML)*, 1(1), 26–30.
- Mawaddah, S., & Maryanti, R. (2016). Kemampuan Pemahaman Konsep Matematis Siswa SMP Di Kutacane. *EDU-MAT: Jurnal Pendidikan Matematika*, 4(1), 76–85.
- Morán-Soto, G., & Benson, L. (2018). Relationship of mathematics self-efficacy and competence with behaviors and attitudes of engineering students with poor mathematics preparation. *International Journal of Education in Mathematics, Science and Technology (IJEMST)*, 6(3), 200–220.
- Ningsih, D. A., Jusra, H., Faradillah, A., Alyani, F., & Firmansah, F. (2021). LAPS-Heuristik Learning Model Toward Students' Mathematical Creative Thinking Ability. *Proceedings of the 1st Annual International Conference on Natural and Social Science Education (ICNSSE 2020)*, 547, 181–185.
- Novena, V. V., & Kriswandani, K. (2018). Pengaruh Model Pembelajaran Probing Prompting Terhadap Hasil Belajar Ditinjau Dari Self-Efficacy. *Scholaria: Jurnal Pendidikan Dan Kebudayaan*, 8(2), 189–196.
- Nurani, G. A., & Alsa, A. (2021). Peningkatan Efikasi Diri Matematika melalui Metode Belajar Mind Map. *Psymphathic : Jurnal Ilmiah Psikologi*, 8(1), 57–68.
- Phonapichat, P., Wongwanich, S., & Sujiva, S. (2014). An Analysis of Elementary School Students' Difficulties in Mathematical Problem Solving. *Procedia - Social and Behavioral Sciences*, 116, 3169–3174.
- Prihandhika, A., Fatimah, S., & Dasari, D. (2018). The Improvement of Mathematical

- Connection Ability and Habits of Studentsr Mind with Missouri Mathematics Project and Discovery Learning. *Mathematics, Informatics, Science, and Education International Conference (MISEIC 2018)*, 157, 253–257.
- Putri, C. A., Munzir, S., & Abidin, Z. (2019). Kemampuan Berpikir Kreatif Matematis Siswa melalui Model Pembelajaran Brain-Based Learning. *Jurnal Didaktik Matematika*, 6(1), 13–28.
- Regier, P., & Savic, M. (2020). How teaching to foster mathematical creativity may impact student self-efficacy for proving. *The Journal of Mathematical Behavior*, 57, 2–18.
- Reyes, & D, J. (2019). Mathematics Anxiety and Self-Efficacy: A Phenomenological Dimension. *Journal of Humanities and Education Development*, 1(1), 2581–8651.
- Rini, Z. R., & Purwanti, K. Y. (2021). Problem Solving Ability Analysis Assessed From Self-Efficacy in The Missouri Mathematics Project Learning Model. *ELEMENTARY: Islamic Teacher Journal*, 9(1), 75–92.
- Santoso, A. (2010). Studi Deskriptif Effect Size Penelitian-Peneltian di Fakultas Psikologi Universitas Sanata Dharma. *Jurnal Penelitian*, 14(1), 1–17.
- Saragih, S., & Napitupulu, E. (2015). Developing student-centered learning model to improve high order mathematical thinking ability. *International Education Studies*, 8(6), 104–112.
- Sawilowsky, S. S. (2009). New Effect Size Rules of Thumb. *Journal of Modern Applied Statistical Methods*, 8(2), 597–599.
- Septiani, T., Hudanagara, M. A., & Hendriana, H. (2018). Pengaruh Self Confidence Siswa Smp Terhadap Kemampuan Berpikir Kreatif Matematis Siswa. *JPMI (Jurnal Pembelajaran Matematika Inovatif)*, 1(2), 185–192.
- Siswanti, D. N., & Djalal, N. M. (2018). The Effect of Self-Efficacy to Mathematical Anxiety on Junior High School Students of YDM Learning Guidance Course Makassar. *ASEAN Conference on Psychology, Counselling, and Humanities (ACPCH 2017)*, 133, 185–190.
- Sofyan, M. (2021). The Effectiveness of the Application of the Missouri Mathematics Project Learning Model on Solving Mathematical Problem. *International Conference on Educational Studies in Mathematics (ICoESM 2021)*, 611, 265–270.
- Suciawati, V. (2019). Pengaruh Self-Efficacy Terhadap Kemampuan Berpikir Kreatif Matematik Siswa. *Jurnal Didactical Mathematics*, 2(1), 17–22.
- Suherman, Vidakovich, T., & Komarudin. (2021). STEM-E: Fostering mathematical creative thinking ability in the 21st Century. *Journal of Physics: Conference Series*, 1882, 1–11.
- Suripah, S., & Sthephani, A. (2017). Kemampuan Berpikir Kreatif Matematis Mahasiswa dalam Menyelesaikan Akar Pangkat Persamaan Kompleks Berdasarkan Tingkat Kemampuan Akademik. *PYTHAGORAS: Jurnal Pendidikan Matematika*, 12(2), 149–160.
- Suyanto, & Gio, P. U. (2017). *Statistika Nonparametrik dengan SPSS, Minitab, dan R*. Perpustakaan Nasional: Katalog Dalam Terbitan (KDT).
- Ulfah, U., Prabawanto, S., & Jupri, A. (2017). Students' Mathematical Creative Thinking through Problem Posing Learning. *International Conference on Mathematics and Science Education (ICMScE)*, 895, 1–7.

- Ulya, R., & Hidayah, I. (2016). Kemampuan Pemecahan Masalah Ditinjau dari Self-Efficacy Siswa dalam Model Pembelajaran Missouri Mathematics Project. *UJMER:Unnes Journal of Mathematics Education Research*, 5(2), 178-183.
- Winardi, & Dwijanto. (2017). Analisis Kemampuan Literasi Matematika melalui Model Missouri Mathematics Project dengan Pendekatan Open-Ended. *Unnes Journal of Mathematics Educatio Research*, 6(2), 175-183.
- Wulansari, Suganda, A. I., & Fitriana, A. Y. (2019). Hubungan Self-Efficacy Terhadap Kemampuan Berpikir Kreatif Matematis Siswa SMP pada Materi Bangun Datar Segitiga dan Segiempat. *Journal On Education*, 1(3), 422-428.