

Analysis Of Problem-Solving Ability Student Mathematics From Different Gender

Ita Margaretta Br Tarigan¹

¹Departement of Institut Teknologi dan Bisnis Indonesia

*Corresponding Author: Second itamargaretta1997@gmail.com

ABSTRACT

Article History:

Received : 30-05-2024
Revised : 01-07-2024
Accepted : 01-07-2024
Online : 04-07-2024

Keywords:

Problem-solving;
Polya;
Gender

Ita Margaretta Br Tarigan¹

This study seeks to ascertain gender contrasts in course VIII-A SMP N 1 Kuta Buluh students' scientific problem-solving abilities and in course VIII-A SMP N 1 Kuta Buluh students' critical scientific problem-solving aptitudes. Quantitative and subjective strategy is utilized in this consideration (blended strategies). At the most noteworthy level of understanding the issue and creating a problem-solving arrange, there's a contrast between the scientific problem-solving aptitudes of male and female understudies; be that as it may, this contrast is less self-evident when the arrange is put into hone and the comes about of the problem-solving are surveyed. Typically too apparent from the normal rate of each arrange of students' scientific problem-solving abilities, which is the arrange of understanding the issue with a distinction of 22.62%, the organize of making an arrange to unravel the issue with a distinction of 12.26%, the manage of putting the arrange into hone with a contrast of 0.06% and the organizing of checking on the arrangement with a contrast of 2.62%. It is proposed that moving forward students' ability to fathom scientific issues is fundamental and that understudies have to be prepared and usual to fathoming issues, which the requirement for school socialization is connected to moving forward students' capacity.



Copyright©2023 by authors, all rights reserved. Authors agree that this article remains permanently open access under the terms of the Creative Commons Attribution License 4.0 International License

A. INTRODUCTION

Since we habitually confront science in our regular lives, one of the lessons we learn in school ought to be made strides. Arithmetic could be a subject that all understudies learn from basic school through high school and indeed in college, according to Tiffany, et al. (2017, pp.2160).

Agreeing with Marwazi et al. (2019, pp. 127) "Arithmetic as the ruler of science will of course be required by other sciences as an instrument to fathom issues that are nonstop with number operations, rationale, or nonstop with components of space, or nonstop with things-other things that require arithmetic." Given the over-depiction, it is obvious that learning arithmetic, which proceeds indeed at the most reduced levels we get, is pivotal. One of the abilities that must be moved forward is students' capacity to handle numerical issues. As can be seen, executing a numerical arrangement requires the capacity to handle numerical perplexes. As expressed by Rustam et al. (2017, pp. 322), "Moving forward students' scientific problem-solving aptitudes will progress understudy learning results, and in this manner advance science and the quality of instruction. The points of interest in making strides in problem-solving abilities are caught on from the articulation given by Rustam.

According to Lestari and Surya (2017, pp. 92), "conceptual understanding ability is the main ability that students must have to have other abilities like students' mathematical problem-solving abilities, communication skills, and mathematical representative skills." We can see that pupils need to be able to solve mathematical problems from Lestari and Surya's statements. According to Amalia, et al. (2017, pp. 3403), "students' mathematical problem-solving abilities increase when students have the opportunity to solve their mathematical problems and see problems being solved." From Amalia's remark, it is clear that giving these students the chance to solve mathematical problems will make it easier for them to develop their problem-solving abilities. To develop pupils' mathematical problem-solving skills, according to Eviyanti et al. (2017, pp. 139).

Agreeing to Riska & Surya (2017, pp. 269), "understanding numerical issues could be a complex cognitive action because it includes utilizing a few distinctive techniques to urge past the issues that are experienced." Since understudies who illuminate numerical issues steadily and imaginatively can create unused thoughts and bits of knowledge, they are too able to reason and construct modern information with the understanding of understudies whose arrangements are based on scientific problem-solving abilities. Moreover, we ended up more proficient at adapting with issues in our regular lives as a result of our endeavors to fathom such scientific confuses. The advancement of students' scientific problem-solving aptitudes is upheld by student-centered learning handle exercises that deliver understudies the chance to construct information and be versatile in their approach.

The facts on the ground demonstrate that students' capacity for solving mathematical problems is still quite low and that this is because the learning process prioritizes teacher success goals over students' capacity for solving mathematical problems. However, according to Purnama & Mertika (2018, pp. 59), "the implementation of mathematics in the classroom generally only focuses on the realization of material targets according to textbooks or curriculum, not on the material students learn." as a result of only memorization, students do not comprehend the idea.

The change of students' numerical problem-solving capacities has not been an essential center of arithmetic instruction, indeed in spite of the fact that these abilities are significant for understudies to need to bargain with issues in lifestyle. In Kurniawan's words (2020, pp. 152) "a need of understudy problem-solving abilities causes understudies to as were able to work on schedule questions or questions that are the same as those displayed by the educator so that understudies are not utilized to working on questions that are not scheduled and come about in understudies confronting botches in fathoming math issues," it is proposed that understudies are incapable to work on questions that are not schedule or that are not the same as those displayed by the.

Components that impact students' numerical problem-solving capacities incorporate insights, inspiration, interface, gifts, and sex, claims Cahyono (2015:, pp. 1). The declaration made by Elci (2017, pp. 101–106) that "students' states of mind based on sexual orientation contrasts influence students' scientific problem-solving capacities" is bolstered by this hypothesis. Men and ladies contrast essentially in their capacity for dealing with numerical issues, according to Rodriguez et al. (2020, pp. 1299). In this manner, sexual orientation contrasts affect how people approach and perform on exams requiring numerical problem-solving.

According to Kuzmina et al. (2021, pp. 104) "The capacity to reply numerical issues for men and ladies is additionally influenced by a need of consideration from the encompassing environment. Agreeing to Papyrina, et al. (2020, pp. 89), "male and female understudies have contrasts in abilities and capacity to unravel scientific issues." Agreeing to Das & Wilkinson (2017, pp. 48), "there are noteworthy contrasts between male and female understudies with nonstop capacities in understanding numerical issues." It is well known that men and ladies perform in an unexpected way in arithmetic, especially in terms of their capacity to fathom scientific issues.

Based on the preceding explanation, the writer is curious to do more research to learn more about how well SMP N 1 Kuta Buluh students can solve mathematical problems. Regarding the study's topic, "Analysis of Student Mathematics Problem-Solving Ability From Differences in Gender in SMPN 1 Kuta Buluh,".

B. RESEARCH METHODS

This research uses a quantitative and qualitative approach (mixed methods). This type of quantitative research is used to determine students' mathematical communication ability scores and this type of qualitative research is used to analyze students' problem-solving abilities in terms of students' mathematical communication abilities. These are the phases of this research:

1. Before the area

Developing a research design, selecting a research field, managing permits, reviewing and evaluating field conditions, determining the source of information, and preparing research completeness are all pre-field stages that can support the execution of this research.

2. Outdoor exercise

There are several phases to fieldwork, including: a) self-preparation and understanding the context of the study; b) data gathering and fieldwork; and c) intensive analysis. The stages in the procedure and research design are shown in Figure 1.

C. RESULT AND DISCUSSION

This research sought to learn more about the gender differences in students' propensity for solving mathematical problems. At SMP N 1 Kuta Buluh, 12 study subjects—of whom 6 were female students and 6 were male students—were interviewed after being tested on their ability to solve mathematical problems. The

test results' value, which is divided into high, medium, and low groups, has been used to select the research participants who will be interviewed. Statistical calculations and expert validation support the validity and dependability of the research instrument that was previously demonstrated.

Four queries are asked, two of which are about number patterns and the other two are about Pythagoras. Additionally, to verify the results of the student tests, a 13-question interview was conducted. According to Polya, there are four stages in problem-solving: (1) understanding the problem, (2) developing a plan for solving it, (3) putting the plan into practice, and (4) reviewing the troubleshooting outcomes.

a. Mathematical Problem-Solving Skills of Given Gender Differences

Table 1. Comparison of the Average Percentage of Male and Female Students.

	Average Percentage of Student Mathematical Problem-Solving	
	Male	Female
Recognizing the issue	41,67 %	64,29%
Make a strategy for resolving issues.	15,42 %	27,68 %
Execute the solution strategy	25,83 %	25,89 %
Review the troubleshooting findings.	17,92 %	20,54 %

1. Both the female and male genders place a high value on the capacity to solve students' mathematical problems.

Male students, as seen from HB subjects and AM subjects, have students with high criterion mathematical problem-solving skills, whereas female students, as seen from AG subjects and CG subjects, have not been able to comprehend the issue well.

- a). In subjects HB, subject AM, subject AG, and subject CG, students have been able to write down what is known and asked accurately, but have not been able to write a sketch of the issue according to the information obtained from the questions. This error appears at the stage of understanding the problem.
- b). It is evident in the phases of creating a problem-solving plan, where students taking HB, AM, AG, and CG were able to create planning strategies, simplify problems, and organize problems using the information provided by the questions.
- c). Students in subjects HB, AM, AG, and CG have been able to translate mathematical problems and solve problems using a predetermined strategy. This is seen in the steps of carrying out a problem-solving plan.
- d). It is evident in the stages of going over the results of problem-solving: students in subjects HB, AM, AG, and CG were able to come to conclusions about solutions to problems, but they were unable to create problem-solving with various stages.

2. Both males and females have different opinions about how well students can solve arithmetic problems.

The DS subject and the JP subject are examples of students with middling criterion mathematical problem-solving skills, whereas the DG subject and the TD subject are examples of students who, overall, are not able to comprehend the issue well.

- a). DS subject students have not been able to correctly record what has been known and asked, whereas JP subject, DG subject, and TD subject students have. However, they have not been able to accurately record what has been known and asked, nor have they been able to accurately record a sketch of the problem based on the information gleaned from questions.
- b). DS subject students, JP subject students, and TD subject students were unable to formulate a problem-solving plan strategy, simplify problems, and sort problems from the various information presented from the questions, whereas DG subject students were able to strategize problem-solving plans, simplify problems, and sort problems from the various information presented from the question.
- c). DS subject students and JP subject students have not been able to translate mathematical problems and solve problems with predetermined strategies, whereas DG subject students and TD subject students have been able to do so. This is seen in the stages of carrying out a problem-solving plan.
- d). DS subject understudies, JP subjects, and TD subjects have not been able to create problem-solving with diverse stages, whereas DG subjects have been able to create problem-solving with diverse stages but have not been able to compile problem-solving with distinctive stages. This can be seen within the stages of re-examining the comes about of problem-solving.

3. Both male and female pupils have low standards for their ability to solve mathematical problems.

Male understudies, as seen from AS subjects and RP subjects, have low measure scientific problem-solving capacities, while female understudies, as seen from YM subjects and RK subjects, as an entirety, have not been able to get the issue accurately.

- a). It appears that AS subject students and RP subjects have not been able to correctly record what has been known and asked, while YM subject number 1 has been able to record what has been known and asked but is incomplete, having not been able to record a sketch of the problem by the details learned from the question.
- b). Students of AS, RP, YM, and RK subjects have not been able to create a strategy for solving problems, simplifying problems, and sorting problems from the different material presented from the questions, as seen in the stages of preparing a problem-solving plan.
- c). Students in the AS, RP, YM, and RK subject areas have not been able to translate mathematical problems and solve problems using a predetermined strategy as seen in the steps of carrying out a problem-solving plan.
- d). As seen in the stages of re-examining the problem-solving outcomes, students in AS, RP, YM, and RK subjects were unable to come to conclusions about their solutions or to build problem-solving with various stages.

The clarification illustrates that in course VIII-A SMP N 1 Kuta Buluh, the female sex performs way better than the male species. Individuals consider whether learning methodologies and conceptual systems change based on sex in light of sex contrasts. This can be reliable with the inquiry by Davita & Pujiastuti, (2020, pp. 116) that illustrates the general predominance of female understudies over male understudies starting with the stages of understanding the issue, creating a problem-solving, carrying out a problem-solving plan, and re-examining the comes about of problem-solving. Typically influenced by gender-based contrasts in parts, duties, and errands, which are an item of societal impacts and advancement. Also, inquire about (Indrawati & Nurfaidah, 2016, pp. 24) illustrates that whereas both male and female understudies can fathom numerical issues well generally, male understudies tend to surge whereas female understudies esteem tidiness.

The comparison of the numerical problem-solving aptitudes of male and female understudies illustrates that female students' numerical problem-solving abilities are predominant to those of male understudies. This can be steady with the inquiry Tunnajach & Gunawan, (2021, pp. 7) from the discoveries illustrating the numerical problem-solving abilities of male and female understudies in trigonometry fabric, where female understudies are higher than male understudies, either for the most part talking or in specific stages. Taken after inquire about Davita & Pujiastuti, (2020, pp. 116) The discoveries of his inquiry illustrate that the scientific problem-solving aptitudes of female and male understudies vary, whereas ladies ordinarily contend that the achievement of each arranges of problem-solving illustrates that female students' numerical problem-solving capacities are prevalent in female understudies. man. Concurring to think about (Buranda & Bernard, 2018, pp. 38), female understudies perform way better than male understudies by and large in terms of the concept of considering and methods for comprehending and understanding issues. This can be compared to investigations that inspected students' numerical problem-solving abilities in circle fabric. Lestari, et al. (2021, pp. 1141) moreover illustrate that ladies are by and large more capable at tackling numerical perplexes including lattice fabric than men, which is influenced by the degree of accuracy with which understudies perform calculations. The study's discoveries by Annisa, et al., (2021, pp. 481) moreover illustrate that female understudies perform superior to male understudies when it comes to taking care of scientific issues including 3d shape fabric. Usually, female understudies are more precise and exhaustive, whereas male understudies are way better at utilizing rationale. Generally, ladies are better than men at understanding numerical issues; this can be affected by their ways of considering and the ways they approach and approach issues. Usually moreover affected by the degree of careful quality, meticulousness, and application of rationale, with guys being more slanted toward the mental, theoretical, and objective nature and ladies being more slanted toward the concrete, down-to-earth, enthusiastic, and down-to-earth domains.

b. Gender differences in students' ability to solve mathematical problems in Class VIII-A at SMP Negeri 1 Kuta Buluh

The normal rate of students' numerical problem-solving capacities shows that there are contrasts between male and female students' scientific problem-solving capacities based on the examination of the reactions given by the understudies. Female understudies perform superior to male understudies at each organize of the problem-solving handle: understanding the issue (contrast of 22.62%), making a arrange for understanding the

issue (12.26% distinction), carrying out the arrange (distinction of 0.06%), and returning to the arrangement (2,62% contrast).

This is in line with research by Tunnajch & Gunawan, (2021, pp. 13) that shows overall female students are higher than male students with different stages of understanding the problem, including 11.30%, 3.28%, 10.68%, and 9.76%, as well as the stages of creating a problem-solving plan and carrying it out. Additionally, it was stated by Buranda & Bernard, (2018, pp. 13) that overall, female students perform better than male students. This is supported by the difference between the stages of understanding the problem, which is represented by 1.40%, preparing a problem-solving plan, which is represented by 24.30%, carrying out the plan, which is represented by 24.30%, and the stage of checking again, which is represented by 30.00%. The disparity in the average percentage indicates that female students at SMP N 1 Kuta Buluh have better mathematical problem-solving skills than male students, according to the study.

Concurring with the thinking given, it is obvious that female understudies perform superior to male understudies when it comes to their capacity to illuminate scientific issues. The results of interviews with 12 think-about subjects were utilized to affirm this. Six male and six female understudies from each of the 12 considered subjects were chosen based on test scores and partitioned into tall, medium, and moo categories. The taking after meet pieces illustrate how the investigation of the understudy interviews' discoveries illustrates that female understudies perform way better than male understudies at the problem-understanding organize:

(woman)

P : Could you list the information learned from query number 1?

DG : I agree, ma'am. In my view, Mr. Andy earns RP 2,500,000 per month, and his pay rises by RP 500,000 annually.

P : What inquiries are made in the questions?

DG : Madam, what is Mr. Andy's pay now that he has worked for six years?

(Boy)

P : Could you list the information learned from query number 1? Yes, ma'am, says DS. Number Patterns and Pythagoras is the first issue.

P : Do you understand what being recognized entails?

DS : Madam, you are aware of what the question specified, ma'am.

P : Do you comprehend my first query, son?

DS : Ma'am, I've never studied, so I don't comprehend.

Agreeing with the data within the issue, it is obvious from the meet portion that female understudies are superior at deciding what is known and inquired, while male understudies show up incapable of doing so.

Female understudies perform way better than male understudies when making a methodology for tackling an issue. as appeared by the taking after meet cites:

(women)

P : What calculation do you employ, son?

AG : I believe, ma'am, that using the arithmetic sequence formula, namely $U_n = a + (n-1)b$

(Boy)

P : Son, what strategy will you employ in your response?

HB : In my view, ma'am, multiplying the distance between cities A and B, the taxi fare is RP 8000, and adding the results using the multiplication and addition formula.

It is obvious from the previously mentioned meet selections that not one or the other male nor female understudies were able to properly solve the issues displayed within the questions.

The taking after meet passages show how at the arrange of re-examining the comes about of fathoming the issues of female and male understudies, it can be seen from the test comes about appearing the same comes about:

(woman)

P : Describe the resolution you came up with!

CG : By entering all the values into the formula—for example, AD is 15, and so on—Mrs.

(Boy)

P : Clearly describe the answer you came up with for me!

AM : First, enter all the side numbers to determine the value of $AB^2 = AD^2 - BD^2$ which is $AB^2 = 15^2 - 9^2$, giving the result AB of 12 Mrs.

It is evident from the previously mentioned passages that neither one or the other male nor female understudies were able to properly solve the issues displayed within the questions.

The taking after meet selections show how at the organize of re-examining the comes about of fathoming the issues of female and male understudies, it can be seen from the test comes about appearing the same comes about:

(woman)

P : If the answer is wrong, what do you do?

CG : Looking back at my settlement process, there might be a mistake in my calculations, Ma'am.

P : How do you find out the truth of the answer to the problem?

CG : By asking friends and teachers, Mrs.

(Boy)

P : How do you know if the answer is correct?

HB : Just ask a friend Mrs.

P : If the answer is wrong, what do you do?

HB : By asking friends who know and discussing Mrs.

As can be seen from the aforementioned interview excerpts, neither male nor female students have been able to correctly re-examine the results of their solutions, nor have they been able to use various techniques to do so.

The discoveries of the interviews with the tall, medium, and moo-gather understudies uncovered that both sexes had battled to comprehend the issue clearly, but female understudies performed way better than male understudies based on the sexual orientation crevice. Indeed so, there are a few levels where male and female understudies display the same abilities.

Usually the purpose of the meet direct, which is to memorize more around the investigate subjects' reactions and offer assistance clarify their reactions so that the information collected can be compared to the discoveries of the tests that have been conducted. Sugiyono, (2015, pp. 317). Also, the meeting could be an assembly of two individuals where data and proposals for questions and answers are traded to empower the development of meaning on a particular subject. Sugiyono, (2016, Pp. 231). To get a portrayal of students' scientific problem-solving abilities in each organization of problem-solving utilized, the goal at this point is to survey the legitimacy of students' composed reactions to the issues given.

We are able to conclude that female students' scientific problem-solving capacities are predominant to those of male understudies based on the comes about of the students' problem-solving tests utilizing meet selections from foreordained investigate subjects. These tests were conducted with Lesson VIII-A understudies of SMP N 1 Kuta Buluh.

D. CONCLUSION AND SUGGESTIONS

After are a few of the conclusions drawn in this consider as a result of the examination and talk:

1. The sex hole in students' fitness for fathoming math issues in course VIII-A SMP N 1 Kuta Buluh illustrates that female understudies are predominant to male understudies. This will too be seen from the normal rate of female students' math problem-solving aptitudes at the stages of understanding the issue, which is 64.29%, planning a problem-solving arrange, which is 27.68%, carrying out a problem-solving arrange, which is 25.89%, and re-examining the comes about of the problem-solving, which is 20.54%. The normal rate of male students' numerical problem-solving capacity is 41.67% at the arrange of understanding the issue, 15.42% at the organizing of making an arrangement to unravel the issue, 25.83% at the organizing of executing the arrangement, and 17.92% at the organize of investigating the arrangement.
2. Male and female understudies have diverse aptitudes for tackling scientific confuses. The stages of problem-solving arranging and problem-solving usage show the most prominent contrasts, taken after by the stages of problem-solving implementation and re-examination of problem-solving results. Usually moreover illustrated by the comes about of the normal rate of each organize, which appears as a distinction of 22.62% within the understanding of the issue, a difference of 12.26% within the arrangement of a problem-solving arrange, a distinction of 0.06% within the execution of the arrangement, and a contrast of 2.62% within the checking of the return of the comes about of the problem-solving.

ACKNOWLEDGEMENT

The authors would like to take this opportunity to appreciate everyone who has supported them. The principal, teachers, and staff at SMP N 1 Kuta Buluh are also thanked by the authors for allowing them to perform research at the school and for providing them the chance to do so.

REFERENCES

- Amalia, Surya.E & Syahputra.E. 2017. The Effectiveness Of Using Problem-Based Learning (PBL) In Mathematics Problem-Solving Ability For Junior High School Students. *IJARIE-ISSN(O)-2395-4396 Vol-3 Issue-2 2017 .pp. 3402-3406.*
- Anisa, W. N. 2015. "Peningkatan Kemampuan Masalah Belajar Pendidikan Matematika Realistik Untuk Siswa SMP Negeri Di KabupatenGarut." *Jurnal Penelitian serta Pengajaran Matematika 1 (1).*
- Buranda, S.M., & Bernard, M., (2018). Analisis Kemampuan Pemecahan Masalah Matematik Materi Lingkaran Siswa Smp Berdasarkan Gender. *JPMI – Jurnal Belajar Matematika Inovatif, 2 (1). Pp. 33-40.*
- Cahyono, Budi. 2017. Analisis Keterampilan Berfikir Kritis dalam Memecahkan permasalahan Ditinjau Perbedaan Gender. *Jurnal Aksioma. 8(1).*
- Das, K. P., & Wilkinson, M. 2017. The Effects Of Gender, Class Level, And Ethnicity On Attitude And Learning Environment In College Algebra Course The Effects Of Gender, Class Level, And Ethnicity On Attitude And Learning Environment In College Algebra Course. *Journal of Mathematical Science & Mathematics Education, 6(2). Pp. 44–55.*
- Davita, P. W. C., & Pujiastuti, H. 2020. Anallisis Kemampuan Penyelesaian masalah matematis Dilihat dari Gender. Kreoano: *Jurnal Matematika KreatifInovatif, 11(1). Pp.110–117.*
- Elçi, A. N. 2017. Students ' Attitudes Towards Mathematics and the Impacts of Mathematics Teachers '. *Acta Didactia Napocensia, 10(2).Pp. 59–68.*
- Eviyanti.C.y., Surya.E., Syahputra.E., & Simbolon.M. 2017. Improving the Students' Mathematical Problem Solving Ability by Applying Problem Based Learning Model in VII Grade at SMPN 1 Banda Aceh Indonesia. *International Journal of Novel Research in Education and Learning, ISSN 2394-9686 Vol. 4, Issue 2, pp. 138-144.*
- Indrawati.N & Nurfaidah.T. 2016. Analisis Kemampuan Pemecahan Masalah Berdasarkan Tingkat Kompleksitas Masalah serta Perbedaan Gender. *Jurnal Sainifik Vol.2 No.1, Januari 2016. Pp. 16-25.*
- Kurniawan.R.I., Nindiasari.H., & Setiani.Y. 2020. Analisis Kemampuan Pemecahan Masalah Matematis Dengan Memakai Belajar Daring. *Wilangan: Jurnal Inovasi serta Riset Pendidikan Matematika Volume 1, No. 2, Juni 2020, pp. 150-160.*
- Kuzmina. Y, Ivanova.A & Kanonirs.G. 2021. Inattention, hyperactivity/impulsivity, and mathematics: Exploring gender differences in a nonclinical sample. *Elsevier Research in Developmental Disabilities vol. 119 December 2021. Pp. 104-107*
- Lestari W, dkk. 2021. Kemampuan penyelesaian masalah matematis Dilihat dari Perbedaan Gender. *Jurnal Program Studi Pendidikan Matematika Volume 10, NO.2. 2021, Pp. 1141-1150*
- Lestari.L & Surya.E. 2017. The Effectiveness of Realistic Mathematics Education Approach on Ability of Students' Mathematical Concept Understanding. *International Journal of Sciences: Basic and Applied Research (IJSBAR)(2017) Volume 34, No 1, pp 91-100.*
- Marwazi.M, Masrukan., & Putra.N.M.D. 2019. Analysis of Problem-Solving Ability Based on Field Dependent Cognitive Style in Discovery Learning Models. *Journal of Primary Education 8 (2). P-ISSN 2252-6204, e-ISSN 2502-4515. Pp. 127–134.*
- Papyrina, V, Strelbel. J, & Robertson.B. 2020. The Student confidence gap: Gender Differences in job skill self-efficacy. *ScienceDirect Journal of Education for Business Vol.96 Issue 2. Pp. 89-98https://doi.org/10.1080/08832323.2020.1757593.*
- Purnama. S & Mertika. 2018. Analisis Kemampuan Pemecahan Masalah Siswa Dilihat dari Self Confidence. *Journal of Educational Review and Research Vol. 1 No. 2, December 2018: 59 – 63 e-ISSN: 2597-9760, p-ISSN: 2597-9752.*
- Riska.E.H & Surya.E. 2017. Kemampuan Pemecahan Masalah Matematis Siswa Kelas VII Dalam Menyelesaikan Persamaan Linear Satu Variabel. *Semnastika Unimed ISBN:978-602-17980-9-6 268. pp.268-279*
- Rodriguez. A.M.M, Luyten.H & Meelisse.M.R.M. 2020. Gender Differences in Mathematics Self-concept Across the World: an Exploration of Student and Parent Data of TIMSS 2015. *Springer International Journal of Science and Mathematics Education (2020) 19 Pp. 1229–1250.https://doi.org/10.1007/s10763-020-10100-x.*
- Rustam.E., Sidabutar.D.R., & Surya.E. 2017. Improving Learning Activity and Students' Problem-Solving Skill through Problem-Based Learning (PBL) in Junior High School. *International Journal of Sciences: Basic and Applied Research (IJSBAR)(2017) Volume 33, No 2, pp 321-331.*
- Sugiyono. 2015. "Metode Penelitian Kuantitatif, Kualitatif, serta R&D". Bandung : Alfabeta
- Sugiyono. 2016. "Metode Penelitian Kuantitatif, Kualitatif, serta R&D". Bandung : Alfabeta

- Tiffany.F., Surya.E., Panjaitan.A., & Syahputra.E. 2017. Analysis Mathematical Communication Skills Student At The Grade IX Junior High School. *IJARIE-ISSN(O)-2395-4396 Vol-3 Issue-2 2017* . Pp. 2160-2164.
- Tunnajach.N.F & Gunawan. 2021. Analisis Kemampuan Pemecahan Masalah Matematis Siswa dalam Menyelesaikan Soal Berbasis Kontekstual pada Materi Trigonometri Dilihat dari Perbedaan Gender. *MATH LOCUS: Jurnal Riset serta Inovasi Pendidikan Matematika Vol. 2, No. 1, Juni 2021, p-ISSN: 2723-1208, e-ISSN: 2723-1194. Pp. 7-14.*