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EXPLORING THE STUDENT'S PROBLEM-SOLVING SKILLS IN MISSOURI MATHEMATIC PROJECT LEARNING FROM THE SELF-REGULATED LEARNING IN STATISTICS MATERIAL

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ABSTRACT

Education is the heart of the world. Exploration activities demonstrate students' mathematical problem-solving skills. Research purposes; The first, Identification learning outcomes by describing high, medium, and low Self-Regulated Learning (SRL) problem-solving abilities through the Missouri Mathematics Project (MMP). The second is to find out if the MMP model has a role in achieving classical mastery in its ability to solve mathematical problems the average value is it purpose achieved ≥ 80 in 75% of all samples. Mixed method, concurrent embedded design. A total of 75 students of the 8th grade of the SMP Pesantren Attaqwa Bogor in 2022-2023. Data from Problem-solving skills tests, SRL questionnaires, and interviews. Include 6 subjects; two high SRL students, two medium SRL students, and two low SRL students are picked from the 75 SRL-enrolled students. The teacher of the topic to be questioned in this study choose which students to interview. The research results show that: First, Students with high SRL are able to master the 4 components of Polya problem solving; medium SRL students are still able to understand the problem, make a settlement plan, carry out the settlement plan but are less able to re-examine the work; low SRL students are able to understand the problem but are less able to make a settlement plan, carry out the completion plan and re-check the work. Secondly, the KPM of statistical material students in the MMP model exceeded the mastery learning average score of ≥ 80 in 75% of class VIII students.

Keywords: Exploration, Misssouri Mathematics Project, Self-Regulated Learning, KPM

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PRELIMINARY

Education determines the quality of human resources, both for the present and the future. Education is taught to humans through the process of teaching and learning activities. The purpose of education is not only to train one's memory with information and facts about the meaning of competence in a particular field of study; on the contrary, the purpose of education is to help students reach their maximum potential. As written in

PERMENDIKBUD 2016 No. 21 by (Afniandari et al., 2021) writes: 1) Responsibility, responsiveness and never giving up solving a problem; 2) Be rational, critical, analytical, creative, thorough and careful, 3) Have a thirst for knowledge, a lifelong desire to learn, be confident and interested in mathematics, 4) Have confidence in mathematical abilities and knowledge, 5) Display a mindset open and objective, and 6) Able to explain mathematical concepts clearly.

The National Council of Teachers of Mathematics states that mathematics is not a collection of different topics and skills but an independent field of study despite the fact that mathematics is usually given and taught in a number of different disciplines. Ignacio et al., (2021) argues that mathematics still has very broad material considered as a subject that is difficult to understand, convoluted, abstract and requires special skills. One of the goals of learning mathematics is to help students learn how to solve problems, including being able to understand them, create mathematical models and interpret the results (BSNP, 2018)

Related to the previous discussion about the definitions, goals and problems of mathematics, Ansori dan Herdiman, (2019) explain that problem solving is the pinnacle of mathematics achievement. The importance of problem-solving skills in mathematics, not only for those who will study these subjects in the future, but also for use in other academic disciplines. Polya, (1973): 1) identify the problems encountered, 2) design strategies, 3) implement design strategies, and 4) reflect/review work.

Student knowledge of methods for solving mathematical problems can be revealed through exploration activities according to (Oktaviyanthi & Agus, 2019). The current research objective is to maintain and improve learning outcomes so that learning is complete. While at that time it also focused more on students' exploration of solving math problems in the category of students in the process of maintaining and improving learning outcomes. Susilawati et al., (2017) assessed and estimated students' ability to plan problem-solving procedures.

Two international scale tests show that the current state of student problem solving is very low including: 1) 2018 PISA test; and 2) Trends in International Mathematics and Science Study (TIMSS). Information from TIMSS in 2019 as written by (Mullis et al., 2019) obtained a score of 386 in the very low category of Indonesian students ranking 41st out of 45 countries in the world that carried out the test. According to TIMSS study findings, the ability of Indonesian students is very low in most areas: 1) understanding material, 2) problem formulation, analysis and theory development, and 3) using

instruments, following processes and (4) conducting investigations (PERMENDIKBUD, 2016). In fact, PISA shows an increase in scores, as well as questions, the highest ability level is 6, while the lowest is. The ability of the highest level 6 and the lowest level 1.

In facts, the result of worksheet test questions and school exam results from class VIII students answer shows how low students' problem-solving skills are in the UAS for the 2021-2022 academic year where the questions are a number of problem-solving questions still having difficulty completing questions, especially when given story reasoning questions requiring complex thinking or techniques. Students often only use equations or formulas directly from the questions without reasoning about the questions. Therefore, students need readiness to solve more challenging problems. Other facts can be found from the results of interviews that were planned beforehand by researchers from one of the fellow teachers in the Mathematics Teacher Deliberation Forum, around 75% of students have low math problem solving abilities written in the teacher's absence assessment. Adhar, (2012) most students only pay attention to the solutions in the textbook and only listen to explanations and write down the words from the teacher. Students usually understand mathematical concepts but lack the ability to apply these concepts (Ramlan et al., 2021).

Santi et al., (2022) wrote that students' techniques, tactics and methods in carrying out tasks related to mathematics are one of the elements that determine the results of problem solving. In addition, class success is supported by many components. However, the early education model used is also very decisive in achieving learning goals. Santi Santi Kumala Swari et al., (2021) said students needed an instructional approach to math problems, so the Missouri Mathematic Project was able to maximize problem solving abilities. Krismanto et al., (2013) wrote the MMP syntax; review, idea development, control learning, independent and seatwork are the teaching styles of the MMP learning model. Rasli et al., (2022) said the MMP model focuses on how teacher behavior influences student learning. Then, Wulandari dan Ansori, (2013) explained that the purpose of the MMP model is to improve students' abilities in various contexts, including contexts where students face difficulties with exercises that involve controlled and seatwork. The opinion of Ulya et al., (2016) wrote that MMP is a tool to help educators efficiently use objective exercises to help students achieve better results. The same thing from Ab et al., (2022) said that the MMP learning model is a program designed to assist teachers in terms of the effectiveness of using exercises so that students achieve extraordinary improvements. In line with the findings of previous researchers (Rahmiati

dan Fahrurrozi, 2016) said the MMP learning model had a positive and substantial impact on problem solving abilities.

Adicondro dan Purnamasari, (2015) wrote that apart from the learning model applied by educators, one of the considerations that must be considered is success in class, there are supporting factors, namely Self-Regulated Learning, three components including cognitive, motivation and behavior. Glasersfeld in Lesmanawati et al., (2020) SRL can be understood as students who manage their own learning. Hendriana et al., (2016) said that in the learning process there are several factors that can affect a person's mathematical ability; one of them is SRL. Winne and Hadwin's in (Zimmerman et al., n.d.) d learning as the ability to master one's own learning experience and direct it in various ways to achieve the best cognitive, motivational and behavioral academic results. Dignath dan Veenman, (2021) the term SRL is used to describe an individual's ability to analyze a task, choose the right solution and assess the effectiveness of that solution. Based on these findings, it can be concluded that SRL has a significant role in KPM. The definition of SRL from Chou and Zou (2020)"... It is an active and creative process in which students set a goal for themselves to learn and then choose a path to reach their own goals, students who manage their own, students that their own objectives, which are influenced by the goals and characteristics of their context.

Research from Subekti & Krisdiani, (2021) the result of the research: 1) Students who take the MMP learning model and students who take the direct learning model are not the same in their ability to solve math problems, 2) Students with high verbal ability, moderate verbal ability and low verbal ability all differ in how well they can solve math problems, 3) There is no correlation between instructional designs. Ulya et al., (2016) wrote that the MMP model is effective for problem solving.

Based on two examples of previous research that are relevant to this research, although research shows that there is a relationship between the MMP model and problem solving, however, there is not enough evidence to show that students' difficulties in solving problems applying statistics are specifically related to students' SRL levels. Even though students' problem-solving skills in this material can be an indicator of the usefulness of school mathematics material for students' real lives. Therefore, there is a need for further research regarding the factors of approaches that can be used and factors that have the potential to hinder student learning so that these problems can be addressed appropriately.

The research objectives are in line with the background of the problem, this study will examine and formulate the problem: 1) Describe the mathematical KPM of students

with MMP presented in three forms of high, medium and low SRL components. 2) Mathematical KPM in MMP completed classically according to the school grades studied and references to the Minister of Education and Culture number 8A with a score of ≥ 80 in 75% of students? The substance of the topic of statistics in class VIII SMP, where all students are girls. The research was conducted May-June 2023 in the even semester.

METHODS

This type of research used mixed method. According to Ulya et al., (2016) data can be collected through tests, questionnaires and interviews. Data can be analyzed both inductively (qualitatively) and deductively (quantitatively), and the combined results can be interpreted in a variety of ways. In order to obtain accurate, valid, reliable and highly objective results, this research approach integrates or combines quantitative and qualitative research methodologies to be used simultaneously in a research activity (Santi dkk, 2022).

The design of this study is an unbalanced mixed concurrent embedded (Ulya dkk, 2016). In this study, a quantitative approach to solving the second problem formulation and qualitative answering the first problem formulation. Santi Kumala Swari et al., (2021). Sugiyono (2011) states that to test the hypothesis, researchers use research instruments for data collection and use quantitative or statistical procedures for data analysis.

The population of all private junior high schools in Bogor district in the eastern region were 15 schools and the research schools were selected at the Attaqwa Modern Islamic Boarding School Gunungputri-Bogor and pilot schools at MTS Sadatud Daaian Gunungputri Bogor. According to Sugiyono, the sample reflects the demographics and characteristics of the population as a whole (Sriwahyuni & Maryati, 2022). Three class samples were taken from all classes in Attaqwa Modern Islamic Boarding School, namely VIIIA, VIIIB and IIC with a total of 75 students. With the purposive sampling technique, 6 students from 75 people were taken as subjects for further interviews. Fattayati et al., 2021)“ In mixed methode research, there are no set guidelines for the appropriate size of the sample. The court has the ability to submit a complaint with the competent court if it so chooses in line with the requirements of the relevant statutes.” This implies that the number of subjects participating in mixed research can be selected as needed

Research Steps : 1) Research preparation, 2) Research implementation, 3) data processing, and 4) drawing conclusions.

1. **Data Sources:** 1) SRL questionnaire results, 2) KPM description for each SRL component, 3) Polya KPM test results with indicators: (a) Understanding the problem,

(b) planning a solution, (c) implementing the plan and (d) re-checking the answers. students in class VIIIA, VIIIB and IIC will be tested for SRL problem-solving and self-regulation abilities as part of the SRL questionnaire test. However, only 6 students will be interviewed later, based on the high SRL category 2 people, 2 people in the medium SRL category and 2 people in the low SRL category.

2. Data Collection Technique:

1) Test technique; after learning is carried out, tests are carried out on three classes VIIIA, VIIIB and IIC with close the book work. Procedures include making grids, compiling specifications tables, determining the types of questions, writing question items and answer keys, and scoring rubrics written directly in the series of questions. While the items will be validated, reliability, level of difficulty and discriminating power with the help of SPSS 23 or Microsoft Excel 2016.
2) The questionnaire method with tests has been validated by 3 expert lecturers and tested in different schools. A total of 26 questions have been validated with the description of the questions as follows:

Table 1. The Total of SRL Questionnaire

Positive Statement	Negative Statement
9, 15	20,7
2,14	21,24
3,13	19,22
4,12	18, 25
1, 5, 8,11	17, 26
6,10	16, 23
Total 14 Questions	**Total 12 Questions**

Table 2. SRL Questionnaire Scale

Positive questions		***Negative Questions***	
Answer	*Score*	*Score*	*Answer*
Strongly Agree (SA)	5	1	Strongly Agree (SA)
Agree (A)	4	2	Agree (A)
Neutral (N)	3	3	Neutral (N)
Disagree (D)	2	4	Disagree (D)
Strongly Disagree (SD)	1	5	Strongly Disagree (SD)

Source: (Sugiyono, 2015)

1) Interview technique: The interview instrument has been validated by 3 expert lecturers and then used as a qualitative data collection technique if the researcher wants to know things from respondents in more depth. Of the 75 students who had

filled out the SRL questionnaire, 6 students were selected based on the SRL category and on the consideration of the subject teachers to be interviewed in this study, the method of selection was with 2 high SRL students, 2 medium SRL students and 2 low SRL students.

2) Documentation Techniques; researchers used photo documentation during teaching and learning activities in class conducted by the teacher, photo documentation of interviews, video recordings of students working on individual assignments, groups and discussions in class as well as documentation of student work.
3) observation techniques; In the classroom, observations will be made of ongoing teaching and learning activities accompanied by the teacher in the class concerned.

Research Instrument: The KPM test test instrument at different schools in class VIII. The purpose of this test was to find out whether a question was valid or appropriate for use in problem-solving tests in future research classes. Polya's problem-solving ability test instrument, as follows.

Table 3. KPM Scoring Test Guideline

Aspect	Score	Student's Response
Understanding the problem	0	Do not write down what is known and what is asked of the problem
	1	Write down what is known, asked but not precise, incomplete
	2	Write down what is known, asked from the problem correctly and completely
Planing the completion	0	There is no completion strategy plan
	1	Make a strategic plan with completion but less relevant
	2	Make a correct but incomplete completion strategy plan
	3	Make and understand the completion strategy plan quite correctly
Implementing the Completing Planning	0	No resolution at all
	1	Carrying out procedures is less relevant resulting in wrong answers
	2	Generates the correct answer but the procedure is unclear or wrong
	3	Carry out the correct procedure and may produce correct answers but incorrect calculations or incomplete solutions
	4	Do the right procedures and get the right results
Recheck	0	Do not write the conclusions and evaluating process results.
	1	Write the conclusion of the problem but wrong or incomplete.
	2	Write conclusions and checking procedures thoroughly, correct and complete.

The interview guideline followed the five steps method of Polya, (1973) to complete the problem soving and the researcher developed an interview guide instrument. The instrument for determining student SRL is presented in the following table.

Table 4. SRL Level Criterion

Interval	SRL Criterion	Notes
61-80	$x \geq (\tilde{x} + SD)$	High
41-60	$(\tilde{x} - SD) < x < (\tilde{x} + SD)$	Moderate
20-40	$x \leq (\tilde{x} - SD)$	Low

(Modified, Ramon Muhandaz 2021)

Notes:

x : SRL

$\tilde{x}$: Average Score

SD: Standard Deviation of Student's Score

5. Data Analysis Trial of KPM Test Questionnaires

Content Validity; Content validity was carried out by an expert in their field, namely 3 expert lecturers in their field, suggestions from the teacher and with researchers. Test Item Validity Analysis; for valid or invalid items, use rxy then compare with the results of r on the product-moment matrix at a significance level of 5%. If rxy > r table then the question is considered valid. Exam questions are presented in the form of 10 separate essay questions and 26 questionnaires.

Table 5. Recapitulation of the validity, reliability, Validity, Distinguishing Power, and Question Difficulty Level

Indicator	Question Number	Validity	Reliability	Distinguishing Power Category	Difficulty Level
Students are able to analyze statistical data in various diagrams	1a	Valid	Reliable	Very Good	Moderate
	1b	Invalid		Very Good	Easy
	1c	Valid		Very Good	Easy
Students are able to determine the average value, Median, mode of a data	2a	Invalid		Very Good	Easy
	2b	Valid		Very Good	Easy
	2c	Valid		Very Good	Easy
Students are able to determine the value of Q1, Q2, Q3	3a	Valid		Very Good	Easy
	3b	Valid		Very Good	Easy
Students are able to determine the distribution of data: range, quartiles, interquartile range, quartile deviation	4a	Valid		Very Good	Easy
	4b	Invalid		Very Good	Easy

Tabel 6. SRL Questionnaire Test

Validity	Valid	Invalid
Question Number	1, 2, 3, 4, 6, 7, 8, 9, 10, 12, 13, 14, 15, 16, 17, 18, 19, 20, 21, 22, 23, 24, 25, 26	5, 11
Total	24	2
Category	Moderate and High	Very Low

Instrument validity, reliability, discriminatory power, and difficulty were processed using Microsoft Excel 2016 or IBM SPSS statistics 23. Then, researchers selected and selected questions to test students' ability to solve mathematical problems. Then it is concluded that the instrument test questions that can represent each indicator question are presented in the following table:

Table 7. Instrument Questions

KPM Test Question	Questionnaire test
1a, 2c 3b, 4a	1, 2, 3, 4, 6, 7, 8, 9, 10, 12, 13, 14, 15, 16, 17, 18, 19, 20, 21, 22, 23, 24, 25, 26
4 questions	24 questions

1) Data analysis techniques; Qualitative data reduction, data display (data presentation), conclusion drawing/verification (drawing conclusions), while Quantitative Data Analysis; One-Sample-Kolmogorov-Smirnov Exact and due diligence.

Triangulation, or the practice of comparing and ensuring the reliability of data from multiple sources, is used to ensure the accuracy of the results displayed. the use of triangulation studies by comparing student work results with data (triangulation method) and comparing and analyzing participant data/ Triangulation of data sources: documentation results, work results, interview results and observation results.

The completeness test was carried out to find out whether the proportion of students who obtained the results of the student's problem solving ability test scores ≥ 80 in the MMP learning model reached 75% of students complete, the hypothesis is as follows.

H_0 $\pi \leq 0{,}75$; (completeness of the KPM test results is less than or equal to 75%);

H_1 $\pi > 0{,}75$; (problem solving ability test result completeness is more than 75%)

Reject H0 if $z \geq z0.5-\alpha$ with $\alpha = 0.5\%$ and accept H0 otherwise.

$$z = \frac{\frac{x}{n} - \pi_0}{\sqrt{\frac{\pi_0(1-\pi_0)}{n}}}$$

Notes: z: the value of z count

x: the number of students who complete

π_0: the score of KKM

n: the total of all students

The score for determining the test scores for the description of students' cognitive abilities is based on the minimum completeness criteria that have been determined at school, guided by the subject teacher's assessment rubric as follows:

$$\text{Final Score} = \frac{score\ obtained}{total\ score} \times 100$$

RESULT AND DISCUSSION

In the three research classes VIII A, B and C, the score for the math problem solving ability test was 88, with a maximum score of 100 and a minimum score of 48. There were 68 students with complete grades and 7 students with incomplete KKM scores.

Table 8. The result of Student's Completeness Test

Gain	Criterion	Number of Students
80 - 100	Complete	68
60 - 79	Incomplete	5
≤ 59	Low	2
	Average Score = 88	

Analyzing test results and interviews helped determine how well students in the research class were able to solve problems after using MMP, while filling out the SRL questionnaire was carried out in three research classes as many as 75 students at once. Analyze problem solving questionnaire data by category with indicators; 1) Independence from others, 2) Having self-confidence, 3) Disciplined behavior 4) Having a sense of responsibility, 5) Behaving based on own initiative, 6) Exercising self-control

Table 9. The result of SRL Questionnaire Analysis

Category	Number of Students
High	20
Moderate	36
Low	19
Total	75

The distribution of the SRL categories of students VIII A, VII B and VIII C can be seen in Figure 1.

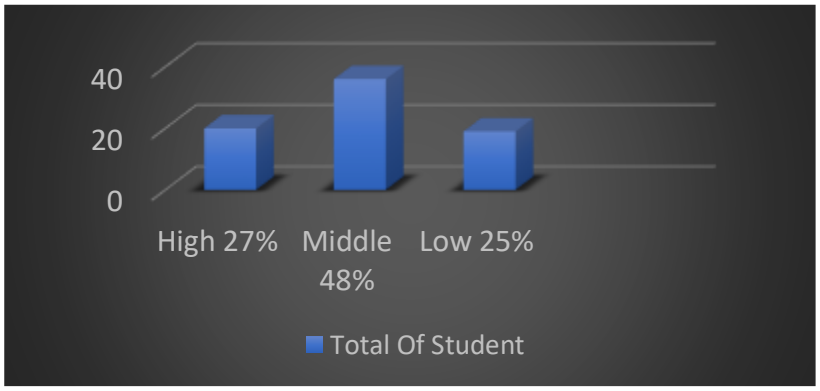
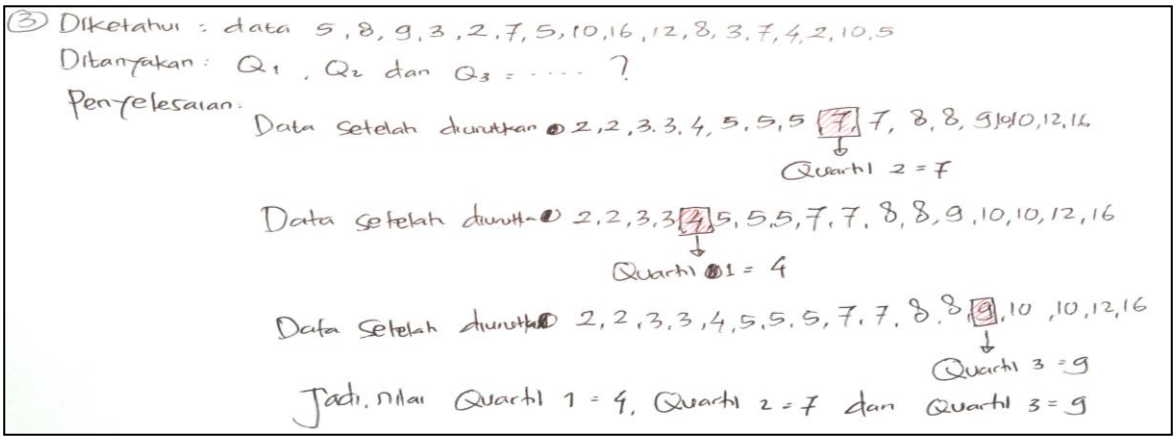


Figure 1. Distribution of Student's SRL Category in Research Class

The following is a brief description of each example of KPM's work representing each question. Students with a high SRL level, problem understanding can explain what is known, ask related questions, and draw an accurate and complete diagram of the problem at hand. SRLs at the problem understanding stage are able to explain what they know, ask related questions, and draw accurate and complete diagrams of the problems encountered



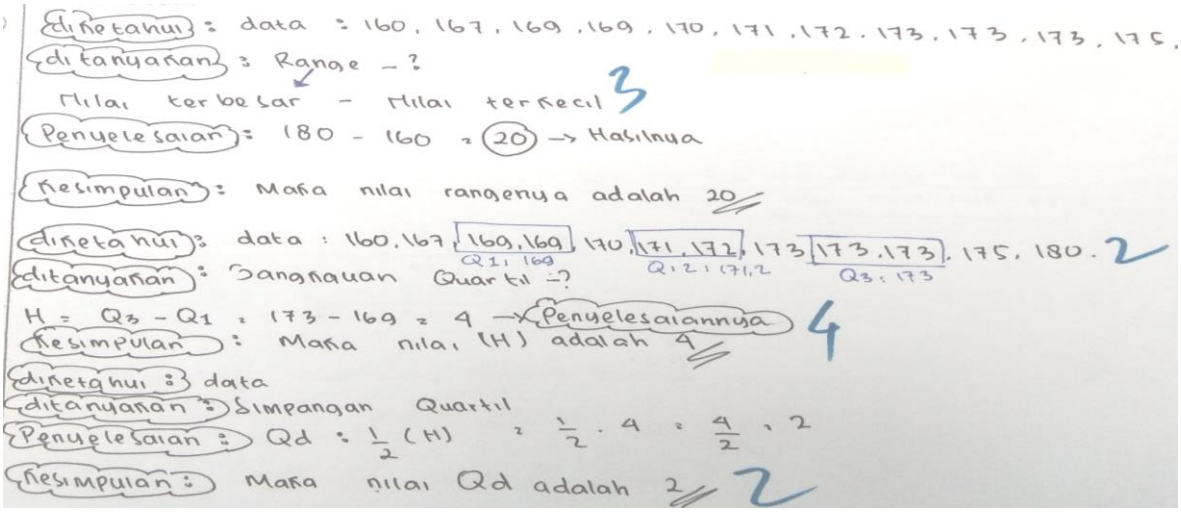
English version

3. Is known : the data 5,8,9,3,2,7,5,10,16,12,8,3,7,4,2,10,5
   asked : Q1,Q2, and Q3?
   settlement: data after sorting 2,2,3,3,4,5,5,5,7,7,8,8,9,10,10,12,16
   Quartil 2=7
   data after sorting 2,2,3,3,4,5,5,5,7,7,8,8,9,10,10,12,16
   Quartil 1=4
   data after sorting 2,2,3,3,4,5,5,5,7,7,8,8,9,10,10,12,16
   Quartil 3=9
   so, the value of $Quartil_1$=4, $Quartil_2$=7, and $Quartil_3$=9

Figure 2. The Result of S21 High SRL the Third Stage of Polya, Question Number 3

Carry out plans, be able to perform calculations, and conclusions are correct, complete. Students with high SRL were able to accurately re-evaluate their work by

recalculating their answers, rereading their work for errors, and providing their findings in a second round of testing.



English version

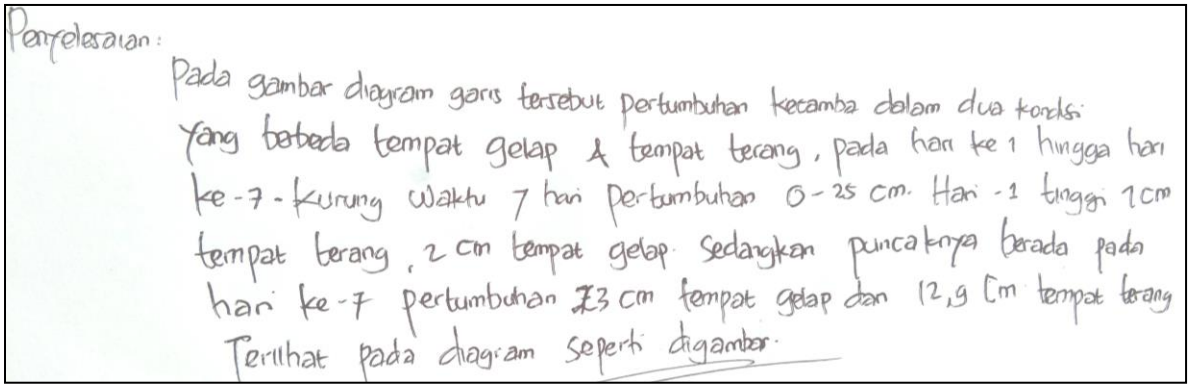
Is known : the data 160,167,169,169,170,171,172,173,173,173,175
asked : Range? (greatest value-smallest value)
settlement : 180-160=20 (result)
Conclusion: then, the value range is 20

Is known : the data 160,167,169,169,170,171,172,173,173,173,175,180 (Q1=169, Q2=171,2, Q3=173)
asked : Quartile range?
settlement : H=Q3-Q1=173-169=4
Conclusion: then, the value H is 4

Is known : the data 160,167,169,169,170,171,172,173,173,173,175
asked : Quartile device?
settlement : $Qd = \frac{1}{2}(H) = \frac{1}{2} \times 4 = \frac{4}{2} = 2$
Conclusion: then, the value Qd is 2

Figure 3. The result of S8 with High SRL Stage 4 Polya, Question Number 4

KPM Students with SRL are in the "understand the problem" stage, when they can explain what they know, ask questions, and draw an accurate and complete solution scheme. At the problem solving stage, able to draw, explain, and write, explaining the completion of a complete solution.



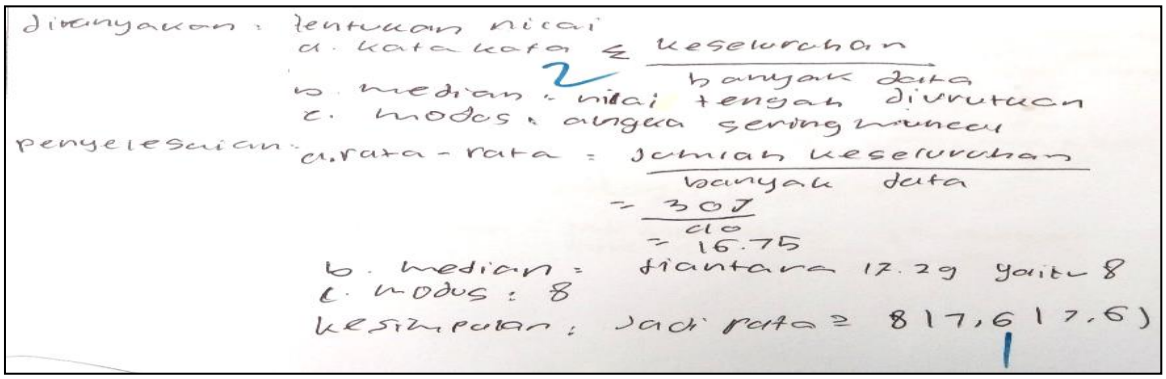
English version

Settlement: In the line diagram, the growth of sprouts in two different conditions, a dark place and a light place. on day 1 to day 7, a period of 7 days growing 0-25cm. day 1 7cm high in a bright place, 2cm in a dark place, while the peak is on the 7th day, growth is 23cm in a dark place and 12.9cm in a bright place. the diagram looks like the picture.

Figure 4. The result of S3 with Moderate SRL Stage 3 Polya, Question Number 1

When implementing being able to follow plans, perform calculations, and write correct conclusions perform calculations, and write correct conclusions. But only 3 out of 4 questions can be answered. Students who have medium category SRL can check work, but cannot use other means.

Students with low SRL have a limited understanding of the situation at hand, difficulty articulating their understanding, and difficulty providing a complete picture. At the problem-solving stage, able to describe, explain, and write correct solutions and correct but incomplete solutions.



English version

asked : Set value
a. Mean ($\frac{\sum data}{n\ data}$)
b. Median (middle value data sorted)
c. Modus (frequently occurring values)

settlement :
a. Mean $=\frac{\sum data}{n\ data}=\frac{307}{40}=16{,}75$
b. Median=8
c. Modus=8

Conclusion: then, the value mean is 817,617,6

Figure 5. The result of S25 with Low SRL Stage 3 Polya, Question Number 2

At the problem-solving plan stage, they cannot execute it, are not accurate in their calculations, and they cannot write conclusions. At the re-examining stage, students who have low SRL check again by researching/reading the steps taken, they cannot use other methods.

Table 10. Recapitulation of KPM Result with 6 Interview Subject and Triangulation

Problem-solving Stage	Problem	High SRL Category		Moderate SRL Category		Low SRL Category	
		Subject S21-B	Subject S8-C	Subject S3-C	Subject S2-A	Subject S25-C	Subject S21-C
Understanding the problem	1	Good	Good	Good	Good	Good	Good
	2	Good	Good	Good	Good	Enough	Enough
	3	Good	Good	Enough	Enough	Enough	Good
	4	Good	Good	Enough	Enough	Enough	Enough
	Conclusion:	Both subjects are in Good Category in this stage		Both subjects are in Good category in understanding stage, but they faced some problems in number 3 and 4		The ability in understanding the mathematics problem is not maximal, less initiative in formulating.	
Planning the completion	1	Good	Good	Good	Good	Good	Good
	2	Good	Good	Good	Enough	Less	Enough
	3	Good	Good	Enough	Enough	Enough	Less

Problem-solving Stage	**Problem**	**High SRL Category**		**Moderate SRL Category**		**Low SRL Category**	
		Subject S21-B	Subject S8-C	Subject S3-C	Subject S2-A	Subject S25-C	Subject S21-C
	4	Good	Good	Enough	Enough	Kurang	Less
	Conclusion:	Both subjects are good in planning the completion		Both subjects are in good category but faced some problem in question number 3 and 4		The planning of completion ability is not maximal, less initiative to formulate the strategy	
Implementing the Completion plan	1	Good	Good	Good	Good	Good	Good
	2	Enough	Good	Good	Good	Less	Less
	3	Good	Enough	Enough	Enough	Less	Less
	4	Good	Good	Less	Less	Enough	Enough
	Conclusion:	Both subjects are in good category in this stage		Both subjects in good category but faced some problems in question number 3 and 4		The ability in implementing the completion plan is not maximal, less initiative and formulating the strategy	
Review	1	Good	Good	Good	Good	Enough	Enough
	2	Good	Good	Enough	Good	Less	Less
	3	Good	Good	Good	Enough	Less	Less
	4	Good	Good	Enough	Good	Enough	Enough
	Conclusion:	Both subjects are in good category in the stage of review the task		Both subjects are in good category in the stage of review the task but they faced some problem in question number 3 and 4		The ability of reviewing the task is not maximal, less initiative, and formulating the strategy	

Quantitative analysis looks at whether the results of the student's problem-solving test meet the hypothesis with the normality test, classical completeness in average value. The Normality Test is used to find out whether the results of the problem-solving ability tests of class VII A, B and C students are normally distributed or not. Following are the results of the normality test problem-solving ability test with a sample of 75 students, because the sample is $51 \leq N \leq 200$, the Kolmogorov-Smirnov Test is used by selecting Exact in IBM SPSS Statistics Version 23 which is considered very valid. With the following hypothesis.

H_0: the data comes from a normally distributed population

H_1: the data comes from populations that are not normally distributed

One-Sample Kolmogorov-Smirnov Test

		VAR00001
N		75
Normal Parameters[a,b]	Mean	88.1200
	Std. Deviation	11.16941
Most Extreme Differences	Absolute	.144
	Positive	.144
	Negative	-.140
Test Statistic		.144
Asymp. Sig. (2-tailed)		.001[c]
Exact Sig. (2-tailed)		.081
Point Probability		.000

a. Test distribution is Normal.
b. Calculated from data.
c. Lilliefors Significance Correction.

Figure 6. Output SPSS Normality Test

Exact Value Sig. = 0.081 > 0.05 accepted. That is, the KPM given the MMP learning model is normally distributed. Because the samples of the three groups are all the same with no comparing variables, the purpose of the normality test is useful as a prerequisite test to determine the data that has been collected is normally distributed or taken from the normal population.

Results and processing of completeness test data; $z = \frac{\frac{68}{75} - 0{,}75}{\sqrt{\frac{0{,}75(1-0{,}75)}{75}}} = \frac{0{,}157}{\sqrt{0{,}0025}} = \frac{0{,}16}{0{,}05} = 3{,}2$

Conclusion, z_{count} (3,2) ≥ (1,645) $z_{0,45}$ so H_0 is rejected. It means, KPM students on MMP more than 75% complete classical learning. The MMP model is effective for solving student problems (1) the percentage of students in MMP learning is complete, the value is 80 ≥ 75% of students. To clarify the results of individual completeness and classical completeness, the following results are presented from the results of SPSS 23 processing.

One-Sample Statistics

	N	Mean	Std. Deviation	Std. Error Mean
EKSPERIMENT	75	88.12	11.169	1.290

Figure 7. The output Individual Completeness

One-Sample Test

	Test Value = 80					
					95% Confidence Interval of the Difference	
	t	df	Sig. (2-tailed)	Mean Difference	Lower	Upper
EKSPERIMENT	6.296	74	.000	8.120	5.55	10.69

Figure 8. The output of Classical Completeness SPSS

The results of this study are in line with the results of research from Chrisna et al., (2016) who conducted a research on KPM through MMP in class VIII SMP "provides an illustration that MMP learning achieves classical mastery with the material of flat sided

spaces. Mixed method research from Ulya et al., (2016) illustrates that (1) the MMP learning model is effective for problem solving abilities, (2) a) high self-efficacy has a good predicate, b) moderate self-efficacy has an adequate predicate, and c) low self-efficacy less predicate. Similarly, Ramlan et al., (2021) conclude: Firstly, students' self-efficacy from 56 students consisted of high self-efficacy (6 students), medium (24 students), and low (26 students). Secondly, the number of students whose problem solving ability were being measured was in high category (5 students), medium category (24 students), and low category (27 students). So it can be concluded that the higher the students' self-efficacy is, the easier the students solve the problems. On the other hand, the lower the student's self-efficacy is, the more difficult the students solve the problems.

CONCLUSION

Based on the results of the study, the advice given by researchers to math teachers for class VIII, especially teachers at SMP At-Taqwa Gunungputri Bogor and MTs Saadatud Daian, is to use the Missouri Mathematics Project as an alternative learning method to achieve mastery in studying statistics, especially in the distribution of single data. . Recommendations that it is necessary to carry out further research related to students' mathematical problem-solving abilities in terms of SRL.

Results 1) MMP is effective against KPM, because a) > 75% of students in the MMP class achieve classical completeness with an average score of not less than 80. 2) Description of mathematical KPM in the MMP model of SRL; a) High SRL students understand the problem, make a settlement plan, carry out the settlement plan and check back properly. b) Students with SRL understand the problem, make a settlement plan, carry out the settlement plan and do not re-examine c) Low SRL students understand the problem, are unable to carry out a settlement plan, are unable to carry out the settlement plan and are unable to re-examine and are unable to use other methods. To anticipate problem solving in medium and low category students repeating themselves in class, the mathematics teacher needs guidance, mentoring and motivation to learn in class when learning takes place.

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