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Students' strategies and creativity in solving IPS problems in class VIII SMP Negeri 3 Sungguminasa Gowa district

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Abstract
This study aims to analyze the strategy and creativity in solving social studies problems in class VIII students of SMP Negeri 3 Sungguminasa Gowa Regency. The type of research used is qualitative with a descriptive approach. The subjects in this study were at least 6 students of class VIII, consisting of at least 2 high category students, 2 medium category students, and 2 low category students.
The instruments used in this study were 3 items of social studies problem solving test and interview guidelines. The data analysis technique used is the Miles and Huberman model which consists of data condensation, data presentation, and conclusion drawing.
The results of this study indicate that high category subjects are able to use strategies in problem solving. High category subjects fulfill the creativity indicators, namely fluency, flexibility and novelty, so it can be said that high category subjects are at the creative level. Medium category subjects only used 1 appropriate strategy in problem solving. Moderate category subjects are able to fulfill the creativity indicator, namely fluency, so that it can be said that moderate category subjects are at a less creative level. Meanwhile, subjects in the low category only used one strategy in problem solving but the strategy was not efficient with the available problems. Low category subjects are unable to fulfill the creativity indicators so that it can be said that the subject is at an uncreative level. Therefore, there are differences in strategy and creativity of students in solving social studies problems in class VIII SMP Negeri 3 Sungguminasa Gowa Regency.

Keywords: Strategy, creativity, social studies problem solving

Introduction

Technological advances in the 21st century greatly affect the world of education. Along with the rapid development of technology, and the complexity of technological developments, it becomes a challenge that must be faced by the world of education, especially in the learning process in school. Some of the characteristics of 21st century skills that must be possessed by a student are critical thinking (criticial thinking), creativity and innovation (creative and innovative), communication skills (communication skills), the ability to work together (collaboration) and self-confidence (confidence). The five things conveyed by the government are the targets of student character based on Ariyana (2018) [1]. But unfortunately, most of the orientation of education in Indonesia still tends to strengthen the ability of the left brain (intellect) compared to the ability of the right brain (creativity). This is in line with Tampubolon & Syahputra (2018) [3] who stated that the development of the right brain (creativity) is still lacking.

According to Tri (2017) Social studies education can make a considerable contribution in overcoming social problems, because social studies education has a function and role in improving human resources to gain knowledge about the dignity of human beings as social beings, the skills to apply this knowledge and be able to behave based on values and norms so that they can live in society. The position of the concepts of science, technology and society is increasingly important in the era of modern society which has many complex problems. According to Hs S (2019) [5], some of the things that trigger students' low ability to do problem solving are due to improper strategy determination. The use of inappropriate strategies will make the resulting solution less or unsuccessful. Based on this explanation, it can be concluded that the determination and use of strategies in the process of solving a problem is very important.

The consequence of teachers' teaching methods that tend not to involve students in learning cannot shape students into creative and independent individuals. Whereas creative students will find a way out when facing a problem in several ways that may be unexpected. This is in line with what Treffinger (Munandar, 2004) [7] said that "by learning creatively students can create possibilities to solve problems that are not foreseen".

Based on observations made in Class VIII at SMP Negeri 3 Sungguminasa, it appears that the social studies learning process has been going quite well. Teachers have tried as much as possible in preparing and designing learning that will be given to students. However, the data obtained from the students' social studies learning outcomes show that the results are not optimal. The following data is the average value of social studies learning outcomes in class VIII SMP Negeri 3 Sungguminasa Gowa Regency.

Table 1: Data on the average report card scores (learning outcomes) of social studies students in class VIII of SMP Negeri 3 Sungguminasa from 2017-2022.

No.	Year	Average Social Studies Learning Outcomes
1.	2018	72,45
2.	2019	74,22
3.	2020	73,78
4.	2021	74,67
5.	2022	74,75
Average		73,97

Source: *Curriculum Section Data SMP Negeri 3 Sungguminasa*

From the data provided in table 1. it can be seen that the average value of students' social studies learning outcomes based on students' report cards for the last 5 years is 73.97. The average score of these students is still below the Minimum Completeness Criteria (KKM) set by the school which is 76.00. Based on interviews with social studies teachers at SMP Negeri 3 Sungguminasa, it is suspected that there are various factors that affect students' social studies learning outcomes at school. As the author has stated at the beginning that the success of problem solving, especially in social studies subjects, is very dependent on the strategy and creativity of students in solving it, especially those related to current conditions and contexts socially.

Several studies link strategies to problem solving, including research by including in the learning process and practicing specific methods for solving math problems, students can learn how to think to approach and solve problems successfully in a broader context in life by (Szabo, et al, 2021). Then this research is to determine the effect of collaborative problem solving (CPS) on the problem solving ability of students with different cognitive styles, namely field dependent (FI) and field independent (FD). This research is a quasi-experimental research with 2x2 factorial design by (Setiawan, et al, 2020) [11]. Research on strategies for problem solving, among others, this study was inspired by the following question: how does mathematical creativity relate to different types of expertise in mathematics? Basing our research on arguments about the domain-specific nature of expertise and creativity, we looked at how participants from two groups with two different types of expertise performed problem-solving through inquiry (PPI) in a dynamic geometry environment (DGE) by (Elgrably and Leikin, 2020) [13]. Furthermore, in this quasi-experimental study, the FPS program was applied across two lines of study: peace education and teacher training. The main objective was to assess the students' perceived awareness of future problem solving, creativity, and innovative behavior before and after the implementation of the program by (Alt, et al., 2023) [15].

Literature Review

Problem Solving Strategy

Problem solving is based on the concept of constructivism developed by European psychologists Jean Piaget and Lev Vygotsky. Problem solving learning rests on the cognitive-constructivist perspective pioneered by Piaget.

Krulik and Rudnik (1995) [17] define problems formally as follows:

"A problem is a situation, quantitative or otherwise, that confronts an individual or group of individuals, that requires resolution, and for which the individual sees no apparent or obvious means or path to obtaining a solution."

Creativity

James J. Gallagher (2010) [19] says that: *"Creativity is a mental process by which an individual creates new ideas or pruducts, or recombines existing ideas and products, in a fashion that is novel to him or her.*

This means that creativity is a mental process carried out by individuals in the form of new ideas or products, or combining the two of them which will eventually be attached to themselves.

Furthermore, Supriadi (2018) [20] stated that creativity is a person's ability to produce something new, both in the form of ideas and real work that is relatively different from what already exists. Furthermore, he added that creativity is a high-level thinking ability that implies an escalation in thinking ability, characterized by succession, discontinuity, differentiation, and integration between each stage of development.

Social Studies Problem Solving

Polya (1973) [22] defines that problem solving as an attempt to find a way out of a difficulty. Meanwhile, according to Saad and Ghani (2008) [23], problem solving is a planned process that needs to be implemented in order to obtain a certain resolution of a problem that may not be obtained immediately. When solving social studies problems, students are faced with several challenges such as difficulties in understanding the problem. This is because the problems faced are not problems that students have faced before.

Isaksen, et al. (2011:19) states that: *"problem solving generally involves devising ways to answer question and to meet or satisfy a situation which presents a challenge, offers an opportunity or is a concern"*

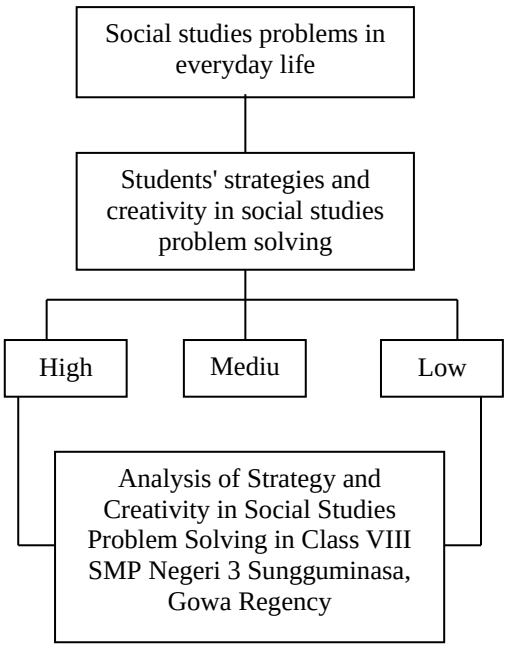

Fig 1: Conceptual Framework

Research Method

This type of research is Qualitative research with a descriptive approach that aims to describe the strategies and creativity of students in solving social studies problems in class VIII SMP Negeri 3 Sungguminasa. Data collection techniques used in this research are observation interviews and interviews. The stage of data analysis techniques with

data condensation selection, narrowing, summarizing, simplifying and transforming. The following steps according to the theory of Miles, Huberman and Saldana (2014) are presented in the picture.

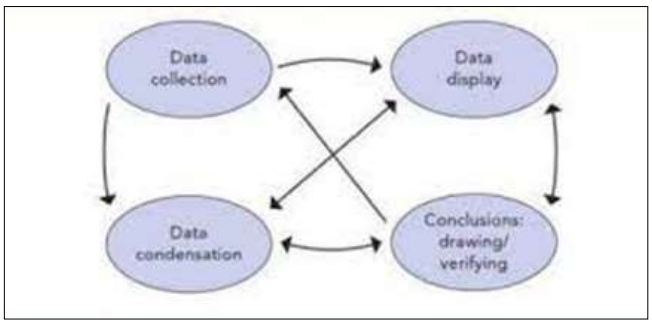

Fig 2: Components of data analysis (interactive model)

From the figure above, 4 components of data analysis are presented, including data collection, data condensation, data presentation and conclusion drawing/verification.

Research Results and Discussion

Research Results

Subject RF-KT

Table 3: Data Validation of RF-KT subject's Strategy and Creativity

Strategy and Creativity Analysis Based on Test	Strategy and Creativity Analysis Based on triangulation results
RF-KT subject was able to identify what was known and asked from the problem. RF-KT subject was smooth and correct in solving questions number 1, 2 and 3.	RF-KT subject was able to identify what was known and asked from the problem. RF-KT subject was fluent and correct In solving questions number 1, 2 and 3
RF-KT subject was able to explain his answer from the question RF-KT subject was able to answer with a logical thinking strategy (S7) and made a drawing (S2).	RF-KT subject was able to explain his answer from the question. RF-KT subject was able to answer with logical thinking strategy (S7) and made a picture (S2).

Source: Data processed by researchers, 2023

Based on the results of tests and interviews, Subject RF-KT was able to solve with logical thinking strategies and make drawings. RF-KT subjects can solve problems by using efficient and effective strategies to solve problems. The subject also admitted that the answer found was the result of RF-KT subject's own thinking. This proves the authenticity of the answer from the RF-KT subject. From the test and interview results, the indicator that RF-KT subject fulfills is fluency.

Subject ENR-KT

Based on the results of tests and interviews, the ENR-KT subject was able to solve with logical thinking strategies and make analysis. Subject ENR-KT can solve problems by using efficient and effective strategies to solve problems. The subject also admitted that the answer found was the result of ENR-KT subject's own thinking. This proves the authenticity of the answer from the ENR-KT subject.

From the test and interview results, the indicator that ENR-KT subject fulfills is fluency. The strategies used by students to solve problems are determining all the possibilities that exist (S4) and thinking logically (S5).

Subject Z-KS

Based on the results of tests and interviews, Subject Z-KS answered with logical thinking strategies (S5) and trial and error (S1) was able to solve problem number 1 with logical thinking and analysis strategies. Subject Z-KS has not been able to solve problems by using efficient and effective strategies to solve problems. The subject also admitted that the answer found was the result of the Z-KS subject's own thinking. This proves the authenticity of the answer from subject Z-KS.

Subject SA-KS

Based on the results of tests and interviews, Subject SA-KS answered with a trial and error strategy (S1) was less able to solve the problem of logical thinking and analysis strategies. Subject SA-KS has not been able to solve problems by using efficient and effective strategies to solve problems. The subject also admitted that the answers found were the result of SA-KS subject's own thinking. This proves the authenticity of the answer from subject SA-KS.

Subject R-KR

Based on the test and interview results, Subject R-KR answered with a trial and error strategy (S1) was less able to solve the problem of logical thinking and analysis strategies. Subject R-KR has not been able to solve problems by using efficient and effective strategies to solve problems. The subject also admitted that the answer found was the result of the subject R-KR's own thinking. This proves the authenticity of the answer from subject R-KR.

Subject NS-KR

Based on the test and interview results, Subject NS-KR answered with a trial and error strategy (S1) was less able to solve the problem of logical thinking and analysis strategies. NS-KR subject has not been able to solve problems by using efficient and effective strategies to solve problems. The subject also admitted that the answer found was the result of the NS-KR subject's own thinking. This proves the authenticity of the answer from the NS-KR subject.

Discussion

Description of Strategy and Creativity of High Category Students in Social Studies Problem Solving.

Based on the test results and interview results, students in the high category are RF-KT and ENR-KT. RF-KT subject understands the problem well where RF-KT subject identifies the information in the problem which is characterized by the subject's ability to express what he knows in the problem. RF-KT subject was able to show precise and fast workmanship, this can be seen from the way the subject explained the steps in solving the problem during the interview. RF-KT subject was able to solve the problem by using logical reasoning. This proves the subject is fluent. RF-KT subject was able to choose the right strategy to solve the problem, the subject used logical thinking strategy (S5) and made a picture (2). So that the subject RF-KT can be said (flexible). The subject also admitted that the answer found was the result of RF-KT subject's own thinking and

the strategy used was a new strategy for RF-KT subject to use. So that the RF-KT subject can be said to have novelty. From the test and interview results, the indicators that RF-KT subject fulfilled were fluency, flexibility and novelty. The strategies used by students to solve problem number 1 are logical thinking (S5) and making drawings (S2).

The ENR-KT subject understands the problem well where the ENR-KT subject identifies the information in the problem given marked by the ability of the ENR-KT subject to reveal what is known and what is asked from the problem. ENR-KT subject is also able to show precise and fast workmanship, this can be seen from the way the subject explains the steps in solving the problem during the interview. Subject ENR-KT was able to solve and the right answer. So that the ENR-KT subject can be said to be fluent in solving the problem. ENR-KT subject can solve problems by using efficient and effective strategies. The indicators met by the ENR-KT subject are fluency and flexibility. The strategies used by students to solve the problem are thinking of all possibilities (S2) and logical thinking (S5).

The subject also admitted that the answers found were the result of ENR-KT's own thinking and the strategy used was a new strategy for ENR-KT subjects to use. So that the ENR-KT subject can be said (novelty). From the test results and interviews, the indicators met by the ENR-KT subject are fluency and novelty. The strategy used by students to solve the problem is Logical Thinking (S5).

The results of this study are in line with research conducted by Sulastri, Imran and Arif Firmansyah (2015) [26] who found that strategies and creativity are needed by students in problem-based learning in social studies subjects in class V SDN 2 Limbo Makmur. Similarly, research conducted by Anisa Noverita and Zulham Siregar (2020) found that learning strategies have a significant and positive relationship to student achievement at SMA Negeri 1 Bandar.

Research conducted by Septian Muklis and Nur Luthfi Rizqa Hariningtyas (2021) also confirms that the ability to think creatively for students can also develop ideas that are out of the box so that it provides a different learning experience. So that teachers need to encourage a variety of learning models and approaches so that students' creativity can be honed even further.

Description of Strategy and Creativity of Medium Category Students in Social Studies Problem Solving

Based on the test results and interview results, students in the moderate category are Z-KS and SA-KS. Subject Z-KS understands the problem well enough where subject Z-KS identifies the information in the problem given marked by the subject is able to mention what is asked from problem number 1 logically. In questions number 1 and 2 the subject is able to solve problems with efficient and effective strategies and solve problem problems with the right reasoning or inference. Subject Z-KS was able to find the right answer. Thus the Z-KS subject fulfills the creativity component, namely fluency. Subject Z-KS can solve problems by using efficient and effective strategies to solve problems. The indicator that subject Z-KS fulfills for the problem solving test is fluency, the strategy used by students to solve the problem is Logical Thinking (S5).

For problem number 2 Subject Z-KS did not understand the problem well where Subject Z-KS could not identify the information in the problem properly. In problem number 2 the subject is less able to solve the problem. Thus subject Z-KS fulfills the creativity component, namely fluency. Subject Z-KS can solve problems by using efficient and effective strategies to solve problems but not in all problems. The indicator that subject Z-KS fulfills is fluency. The strategy used by students to solve the problem is finding all possibilities (S2).

The SA-KS subject understands the problem well where the SA-KS subject identifies the information in the problem given marked by the ability of the SR-KS subject to express what is known and what is asked from the problem. Subject SA-KS is also able to show precise and fast workmanship, this can be seen from the way the subject explains the steps in solving the problem during the interview. The strategy used is logical thinking (S5). This shows the subject's flexibility in answering the question. The subject also admitted that the answers found were the result of the SA-KS subject's own thinking. From the test results and interviews, the indicator fulfilled by the SA-KS subject is flexibility. The strategies used by SR-KS subjects to solve problems are logical thinking (S5) and taking into account every possible answer (S2).

From the test and interview results, the indicator that SA-KS subject fulfills for the test is fluency. Based on these facts, it shows that high category subjects try to solve problems according to their creativity. This is in line with the opinion according to (Richardo and Saputro, 2014) [32] that creativity will be seen if students are able to see several possibilities and conjectures and find new strategies in solving a problem.

Research conducted by Nova Sri Yanti, Maria Montessori and Desi Nora (2022) [34] shows that differentiated learning strategies carried out at school have an impact on student behavior in learning, especially activeness and creativity in doing assignments also increases. This means that by providing the right strategy, the creativity and learning outcomes of students who are still in the moderate category can also increase.

Description of Strategy and Creativity of Low Category Students in Social Studies Problem Solving

Based on the test results and interview results, students in the low category are R-KR and NS-KR. Subject R-KR for problem number 1 did not understand the problem well. Because it does not understand the problem given well, so that the final answer found by the subject is not correct. Subject R-KR has not been able to find the correct answer. Subject R-KR has not been able to use strategies in solving problem number 1. Subject R-KR was unable to find new ways to solve the problem. So subject R-KR did not fulfill the creativity indicator. The strategy used by subject R-KR to solve problem number 1 is trial and error (S1).

For questions number 2 and 3, subject R-KR did not understand the problem well. Because he did not understand the problem given well, so the final answer found by the subject was not correct. The strategy chosen by the R-KR subject was not appropriate to solve the problem given.

The NS-KR subject for problem number 1 did not understand the problem well. Because they did not understand the problem given well, so the final answer found by the subject was not correct. The strategy chosen by the NS-KR subject is not appropriate to solve the problem given. Then the NS-KR subject did not fulfill 3 indicators of creativity for problem number 1. The strategy used by the NS-KR subject to solve the problem is Trial and error (S1).

For questions number 2 and 3 the NS-KR subject did not understand the problem well. Because they did not understand the problem given well, so the final answer found by the subject was not correct. NS-KR subject has not been able to use more than 1 strategy in solving problem number 2. The strategy chosen by NS-KR subject is not appropriate to solve the given problem. From the test and interview results, NS-KR subject did not fulfill 3 indicators of creativity. The strategy used by the NS-KR subject to solve the problem is moving from behind (S6).

The findings of this study are in line with research conducted by Silmi Amirullah, et al (2018) that successful learning at school is determined by the ability to find and use effective or creative learning strategies. Creativity is not only an important element in solving problems, but also an indicator that individuals have a very good level of excellence in higher functions. The existence of creativity character is one of the issues that has not been widely discussed and realized in the educational context, especially in creating an effective learning process. Research by Refian Putriani (2022) provides recommendations for learning strategies with the application of Mind Mapping to improve student creativity and social studies problem solving skills of students, especially those whose learning outcomes tend to be unsatisfactory or in the low category.

Conclusion

The strategy and creativity of students in solving social studies problems of high category students are at level three or creative for question number 1. Students have a tendency to be able to solve problems correctly and smoothly so that it can be said that students fulfill the fluency aspect. It is found that students are able to solve problems so it can be said that students fulfill the flexibility aspect. It is found that students are able to solve problems using strategies that students have just used. So that students fulfill the aspect of Novelty. For questions number two and three, high category students are at level 2 or quite creative. Students have a tendency to be able to solve problems correctly and smoothly so that it can be said that students fulfill the fluency aspect. It was found that students were able to use two appropriate strategies in several problems so that students fulfilled the flexibility aspect.

So that the strategy and creativity of students in solving high category social studies problems can fulfill the fluency aspect and one of the problems can fulfill the flexibility aspect as well as the flexibility aspect aspects of flexibility and novelty aspects.

The strategy and creativity of students in solving social studies problems of moderate category students are at level two or quite creative for problem number 1. Students have a tendency to be able to solve problems appropriately and smoothly so that it can be said that students fulfill the fluency aspect. It is found that students are quite capable in answering problems so that students fulfill the flexibility aspect. It is found that students are able to solve problems using strategies that are new to students. So that students fulfill the novelty aspect. For questions number 2 and 3 students have a tendency to be quite capable of solving problems so that it can be said that students fulfill the fluency aspect. So that the strategy and creativity of students in solving social studies problems in the medium category are able to fulfill the fluency aspect and one of the problems can fulfill the flexibility aspect and the novelty aspect.

Strategy and creativity of students in solving social studies problems in the low category students are at the lowest level or not creative. Because in this category students have not been able to solve all problems precisely and fluently (fluency). Students have not been able to use the right strategy to solve problems (flexibility). Students have not been able to find new ways to solve problems (Novelty).

Suggestion

Referring to the description of the discussion of research results and conclusions above, the researcher provides the following suggestions:

1. It is recommended to social studies teachers to always apply a model or learning approach that will train students' creativity in choosing strategies in solving social studies problems.
2. It is recommended to the social studies teacher to always motivate students in learning social studies, including by conveying the benefits of the material studied in everyday life.
3. This study only focused on efforts to describe the strategies and creativity of students in solving social studies problems, so it is recommended that future researchers conduct further research to expand the results of this study.

References

1. Ariyana Y, Bestary R, Mohandas R. Buku pegangan pembelajaran berorientasi pada keterampilan berpikir tingkat tinggi. Direktorat Jenderal Guru dan Tenaga Kependidikan Kementerian Pendidikan dan Kebudayaan Hak. 2018.
2. https://d1wqtxts1xzle7.cloudfront.net/58103502/Hots_dalam_pembelajaran-libre.pdf?1546469436=&response-content-disposition=inline%3B+filename%3DBUKU_PEGANGAN_PEMBELAJARAN_BERORIENTASI.pdf&Expires=1702044318&Signature=FL5tjtrDkAWQwdhL8JifWlq8CnsTQCFOMO27Qet7gzCSSgW4a4jvXHI7espEXU6fCF5UZVEo3qr5ZZ5JW8R0pGNQx~QFYjBWvlV4BucDjNXVAFiG21WfJAxwD1T4iXwnMHWtm4Z-JnzuxKnY0BFNeWxfHWmFwuvx43i17pXgN-CvOjDcK5xz~BmCPbAemTkqhXFwpfTa0JLvqDXwdXHBHGyTeT8aci4x0NN2fgs5XmsM-KzzXmvUM-F2FSGDCVAkbWO40~mla~Kv7DZbHMelMXRWb4Fi3f-r~cbd1p7w7YfBH2rNfVU86vUHu9WT7TvH4bDUNMpJ8Kg1Mjyawwc-jA__&Key-Pair-Id=APKAJLOHF5GGSLRBV4ZA
3. Tampubolon SW, Syahputra E. perbedaan peningkatan kemampuan berpikir kreatif matematis siswa menggunakan model pembelajaran kooperatif tipe berkirim salam dan soal dengan Think Pair Share di SMP Swasta Imelda Medan. Inspiratif: jurnal pendidikan matematika, 2018, 3(1).
4. https://jurnal.unimed.ac.id/2012/index.php/jpmi/article/view/8797
5. Hs S. Strategi Siswa Dalam Menyelesaikan Soal Pemecahan Masalah Matematika SMA Negeri 1 Indralaya. Cakrawala: Jurnal Humaniora Bina Sarana Informatika. 2019 Mar 30;19(1):139-48.
6. https://ejournal.bsi.ac.id/ejurnal/index.php/cakrawala/article/view/3906

7. Munandar U. Pengembangan kreativitas anak berbakat. Rineka cipta; 2016 May 13.
8. https://repo.iainbatusangkar.ac.id/xmlui/handle/123456789/3950
9. Szabo ZK, Körtesi P, Guncaga J, Szabo D, Neag R. Examples of problem-solving strategies in mathematics education supporting the sustainability of 21st-century skills. Sustainability,2020:12(23):10113.
10. https://www.mdpi.com/2071-1050/12/23/10113
11. Setiawan A, Degeng İ, Sa'dijah C, Praherdhiono H. The effect of collaborative problem solving strategies and cognitive style on students' problem solving abilities. Journal for the Education of Gifted Young Scientists,2020:8(4):1618-30.
12. https://dergipark.org.tr/en/pub/jegys/article/812781
13. Elgrably H, Leikin R. Creativity as a function of problem-solving expertise: Posing new problems through investigations. ZDM–Mathematics Education,2020:53:891-904.
14. https://link.springer.com/article/10.1007/s11858-021-01228-3
15. Alt D, Kapshuk Y, Dekel H. Promoting perceived creativity and innovative behavior: Benefits of future problem-solving programs for higher education students. Thinking Skills and Creativity. 2023 Mar 1;47:101201
16. https://www.sciencedirect.com/science/article/abs/pii/S1871187122002024
17. Krulik S, Rudnick JA. The New Sourcebook for Teaching Reasoning and Problem Solving in Elementary School. A Longwood Professional Book. Allyn & Bacon, 111 Tenth St., Des Moines, IA 50309.; 1995.
18. https://eric.ed.gov/?id=ED387339
19. Gallagher JJ. Kemampuan Kreatifitas Anak Usia Dini. Surabaya. Grasindo. 2010.
20. Supriadi D. Implementasi manajemen inovasi dan kreatifitas guru dalam meningkatkan mutu pembelajaran. Indonesian Journal of Education Management & Administration Review,2018:1(2):125-32.
21. https://jurnal.unigal.ac.id/ijemar/article/view/944
22. Polya G. How To Solve It. New Jersey: Princeton University Press.
23. Saad NS, Ghani SA. Teaching mathematics in secondary schools: theories and practices. Universiti Pendidikan Sultan Idris; 2008.
24. Miles MB, Huberman AM. Qualitative data analysis: An expanded sourcebook. sage; 1994 Jan 12.
25. https://books.google.co.id/books?hl=en&lr=&id=U4lU_-wJ5QEC&oi=fnd&pg=PR12&dq=14.%09Saldana.,+Miles+%26+Huberman.+2014.+Qualitative+Data+Analysis.+America:+SAGE+Publications&ots=kGSB_GQT1U&sig=PMj0ljVeQsu1KCRI2nL_cBpXUuw&redir_esc=y#v=onepage&q&f=false
26. Sulastri S, Imran I, Firmansyah A. Meningkatkan hasil belajar siswa melalui strategi pembelajaran berbasis masalah pada mata pelajaran IPS di kelas V SDN 2 Limbo Makmur Kecamatan Bumi Raya. Jurnal Kreatif Online, 2015, 3(1).
27. http://jurnal.untad.ac.id/jurnal/index.php/JKTO/article/view/4110
28. Noverita A, Siregar Z. Hubungan Penerapan Strategi Pembelajaran Berbasis Masalah Oleh Guru Geografi pada Materi Bumi dan Jagad Raya dengan Hasil Belajar Siswa Kelas XI SMA Negeri 1 Bandar Tahun Ajaran 2018/2019. Jurnal Berbasis Sosial,2020:(2):19-25.
29. https://jurnal.stkipalmaksum.ac.id/index.php/jbs/article/view/118
30. Mukhlis S, Herianingtyas NL. Peningkatan Berpikir Kreatif Siswa Kelas V SDN Cililitan 02 melalui Problem Based Learning (PBL) berbasis Contextual Content. DWIJA CENDEKIA: Jurnal Riset Pedagogik,2021;5(1):64-75.
31. https://jurnal.uns.ac.id/jdc/article/view/50858
32. Richardo R, Mardiyana M, Sari DR. Tingkat kreativitas siswa dalam memecahkan masalah matematika divergen ditinjau dari gaya belajar siswa (studi pada siswa kelas ix mts negeri plupuh kabupaten sragen semester gasal tahun pelajaran 2013/2014). Jurnal Pembelajaran Matematika, 2014, 2(2).
33. https://jurnal.fkip.uns.ac.id/index.php/s2math/article/view/3912/0
34. Yanti NS, Montessori M, Nora D. Pembelajaran IPS Berdiferensiasi di SMA Kota Batam. Ranah Research: Journal of Multidisciplinary Research and Development,2022:4(3):252-6.
35. https://jurnal.ranahresearch.com/index.php/R2J/article/view/498
36. Amrullah S, Tae LF, Irawan FI, Ramdani Z, Prakoso BH. Studi sistematik aspek kreativitas dalam konteks pendidikan. Psympathic: Jurnal Ilmiah Psikologi,2018:5(2):187-200.
37. https://core.ac.uk/download/pdf/201325211.pdf
38. Putriani R. *(FILE KOSONG, UPLOAD ULANG).. Penerapan Strategi Mind Mapping Dalam Meningkatkan Minat Belajar Dan Kemampuan Memecahkan Masalah Mata Pelajaran IPS Siswa Kelas V MIN 4 Ponorogo* (Doctoral dissertation, IAIN PONOROGO).
39. http://etheses.iainponorogo.ac.id/19536/
40. Kadir D, Putera W, Yahya IL. Government Policy Through Market Orientation in Supporting the Business Performance of Maros Bread Business in Maros Regency. International Journal of capacity building in education and Management,2022:5(2):1-21.
41. http://journals.rcmss.com/index.php/ijcbem/article/view/712
42. Marzuki S, Iriani N, Putera W, Saripuddin S, Nurjaya N, Yahya IL. Employment Status and Commitment in Improving Employee Performance at PT PLN (Persero). The Management Journal of Binaniaga,2023:8(1):41-56.
43. http://tmjb.unbin.ac.id/index.php/mjb/article/view/21
44. Thamrin MI, Syarif MN, Putera W, Kibka M, Weda R. Open Class & Pengembangan Modul Ajar Berbasis Outdoor Learning. MALEBBI: Journal Pengabdian Kepada Masyarakat,2024:2(2):12-8.
45. https://ojs.unpatompo.ac.id/index.php/malebbi/article/view/220
46. Syarif MN, Yunus M. Penerapan Model Pembelajaran Kooperatif tipe jigsaw dengan pendekatan JAS untuk Meningkatkan hasil belajar IPA Siswa SMP Negeri 3 Buntu Malangka. Celebes Biodiversitas: Jurnal Sains dan Pendidikan Biologi,2023:5(1):48-57.
47. http://ojs.stkippi.ac.id/index.php/CB/article/view/302

48. Iriani N, Rahman A, Muchtar A, Putera W, Maidin AM. Cara Meningkatkan Kinerja Guru Dalam Pengalaman Mengajar, Kompetensi Guru, dan Budaya Kerja Pada SMA Negeri 9 Kabupaten Bulukumba.
49. https://repository.unibos.ac.id/xmlui/handle/123456789/6829
50. Iriani, Nisma, Abd Rahman, Asikin Muchtar, Wahyudi Putera, and Andi Muh Rusdi Maidin. "Cara Meningkatkan Kinerja Guru Dalam Pengalaman Mengajar, Kompetensi Guru, dan Budaya Kerja Pada SMA Negeri 9 Kabupaten Bulukumba." 2023. https://journal.unibos.ac.id/eco/article/view/2839
51. Rakib M, Sahabuddin R, Rajamemang IL. Social Problems and public Services in Influencing The Fulfillment of the needs of the people of maros regency through the performance of the good government Government.
52. https://www.researchgate.net/profile/Abd-R/publication/366683624_SOCIAL_PROBLEMS_AND_PUBLIC_SERVICES_IN_INFLUENCING_THE_FULFILLMENT_OF_THE_NEEDS_OF_THE_PEOPLE_OF_MAROS_REGENCY_THROUGH_THE_PERFORMANCE_OF_THE_GOOD_GOVERNMENT_GOVERNMENT/links/63ae49b4a03100368a3b419e/SOCIAL-PROBLEMS-AND-PUBLIC-SERVICES-IN-INFLUENCING-THE-FULFILLMENT-OF-THE-NEEDS-OF-THE-PEOPLE-OF-MAROS-REGENCY-THROUGH-THE-PERFORMANCE-OF-THE-GOOD-GOVERNMENT-GOVERNMENT.pdf