iMProvement
Jurnal Ilmiah Untuk Peningkatan Mutu Penddikan
e-ISSN: 2597-8543
Journal Homepage: http://journal.unj.ac.id/unj/index.php/improvement
Journal Email: improvement@unj.ac.id

THE INFLUENCE OF GUIDED INQUIRY LEARNING MODELS ON STUDENT'S CRITICAL THINKING SKILLS AND SCIENCE LEARNING OUTCOMES AT PRIMARY SCHOOL LEVEL

Sunarti[1]
sunarti52@guru.sd.belajar.id
[1]Pascasarjana Pendidikan Dasar, Universitas Muhammadiyah Makassar

Nurlina[2]
nurlina@unismuh.ac.id
[2]Pascasarjana Pendidikan Dasar, Universitas Muhammadiyah Makassar

Ma'ruf[3]
maruf@unismuh.ac.id
[3]Pascasarjana Pendidikan Dasar, Universitas Muhammadiyah Makassar

ABSTRAK

Penelitian ini bertujuan untuk menganalisis model pembelajaran r Inkuiri Terbimbing terhadap Keterampilan Berpikir Kritis dan hasil belajar. Jenis penelitian yang digunakan dalam penelitian ini adalah Penelitian kuantitatif (quasi eksperimen). Subjek yang digunakan dalam penelitian ini adalah peserta didik kelas V dengan jumlah peserta didik sebanyak 58 peserta didik terdiri dua kelas (VA dan VB). Instrumen yang digunakan dalam penelitian ini berupa instrument yaitu tes, lembar observasi dan dokumentasi. Teknik analisis data dilakukan yaitu uji deskriptif (mean, median, modus dan s -tandar deviasi) dan uji inferensial (Normalitas, Homogenitas dan Manova). Berdasarkan analisis data menggunakan spss 25 bahwa uji normalitas literasi sians dan hasil belajar dengan menggunakan Kolmogorov-Smirnov yaitu sig > 0,05 dari hasil pretes dan posttest kelas kontrol dan eksperimen dan uji homogenitas menggunakan based mean adalah sig > 0,05 dari hasil pretes dan posttest kelas kontrol dan eksperimen sedangkan uji manova diperoleh menunjukkan nilai signifikansi sebesar 0,000. 0,000 < 0,05 maka *Ho* ditolak dan *Ha* diterima. Berdasarkan hal tersebut maka dapat disimpulkan bahwa ada Pengaruh Model Pembelajaran Inkuiri Terbimbing Terhadap Keterampilan Berpikir Kritis dan Hasil Belajar IPA di Tingkat Sekolah Dasar.

Kata-kata kunci: Model Pembelajaran, Inkuiri Terbimbing, Keterampilan Berpikir Kritis dan Hasil Belajar.

ABSTRACT

This study aims to analyze the learning model of Guided Inquiry on Critical Thinking Skills and learning outcomes. The type of research used in this research is quantitative research (quasi experiment). The subjects used in this study were students of class V with a total of 58

students consisting of two classes (VA and VB). The instruments used in this study were in the form of instruments, namely tests, observation sheets and documentation. Data analysis techniques were carried out, namely descriptive tests (mean, median, mode and standard deviation) and inferential tests (Normality, Homogeneity and Manova). Based on data analysis using SPSS 25, the normality test for cyan literacy and learning outcomes using Kolmogorov-Smirnov is sig > 0.05 from the pretest and posttest results of the control and experimental classes and the homogeneity test using the based mean is sig > 0.05 from the pretest and posttest results of the control and experimental classes, while the Manova test shows a significance value of 0.000. 0.000 < 0.05 then Ho is rejected and Ha is accepted. Based on this, it can be concluded that there is an influence of the Guided Inquiry Learning Model on Critical Thinking Skills and Science Learning Outcomes at the Elementary School Level.

Keywords: Learning Model, Guided Inquiry, Critical Thinking Skills and Learning Outcomes.

INTRODUCTION

The learning process is a process carried out by an individual to obtain a new change in behavior as a whole, as a result of the individual's own experience in interaction with his environment (Ulansari, dkk., 2018), because in accordance with the times, humans are required to increasingly develop, namely to be able to master (Pratiwi SN, Cari C, 2019) one way of studying science and technology (IPTEK) is by studying general sciences such as natural sciences (IPA) (Pratiwi, 2019). The success of the learning process in the classroom, especially in science learning, cannot be separated from the learning model applied by the teacher to students. To teach students according to their learning styles so that learning objectives can be achieved optimally, there are various learning models that need to be applied in learning activities such as the Guided Inquiry learning model (Rustini & Tjandra, 2016).

The guided inquiry learning model (Guide Inquiry) is a series of learning activities that emphasize the process of thinking critically and analytically to search for and find answers to a problem in question (Amijaya. dkk., 2018). The teacher gives a problem to students and the students must solve it by looking for information from various sources. In the guided inquiry learning process the teacher does not immediately release all the activities carried out by the students, the teacher still provides guidance and direction to the students regarding the problems that must be solved. The guided inquiry learning model (Guide Inquiry) is often used in classes that have no experience learning with the inquiry learning model, because students are still used to the lecture method which always requires the guidance of the teacher as the main guide in the learning process (Setiasih, 2016). Previous researchers have carried out a guided inquiry learning model related to literacy culture with the aim of developing students' cognitive skills, and it was found that there is a significant relationship with critical thinking skills (Sugito, 2018). From the results of the observations above, it is clear that teachers in carrying out teaching and learning activities and assignments are still guided by the activities in the student handbook and have not used the guided inquiry learning model in the learning process in the classroom..

Class V teachers in teaching science learning are still limited to textbook or textbook material and closed questions without linking students' critical thinking skills which causes learning outcomes to not increase significantly. Therefore, we need a learning model that can help students in the learning process. One learning model that can be used is the guided inquiry learning model. Critical thinking skills encourage students, especially to receive information, analyze it and make judgments about it, and all of this requires the ability to

DOI : 10.21009/improvement.v10i2.37407

analyze and be curious. To be able to train this ability, there are several things teachers can do, namely helping students to explain, express their ideas, events or experiences and evaluate. Evaluation is the ability to evaluate or assess something based on one's point of view (Arikunto, 2019). Indicators of students' critical thinking skills are, 1) The relationship between critical thinking and Bloom's taxonomy from the cognitive domain; (2) The relationship between critical thinking and instructional design; (3) Modeling critical thinking skills; (4) Questioning techniques; (5) Guiding students' critical thinking, and (6) Barriers to critical thinking. Students should be able to think critically in the learning process, especially practice in learning and relate it directly to their real life, so that they learn from experiencing it directly, not just memorizing (Peter, 2012). Students are expected to think critically in the learning process in order to understand and learn the material, students carry out simple experiments to find information about science learning material, the information found by students can be remembered more easily and meaningfully, making it easier for students to understand (Ulansari et al., 2018).

Inquiry comes from the English language inquiry which is defined as the process of asking questions and finding out answers to scientific questions asked (Amri, 2010). Scientific questions are questions that can lead to investigative activities regarding the object of the question. In other words, inquiry is a process of obtaining and obtaining information by conducting observations and/or experiments to find answers or solve problems to questions or problem formulations using critical and logical thinking skills. According to (Hayati et al., 2019) Scientific questions are questions that can lead to investigative activities regarding the object of the question. In other words, inquiry is a process of obtaining and obtaining information by conducting observations and/or experiments to find answers or solve problems to questions or problem formulations using critical and logical thinking skills. According to. (Asmawati, 2015) Guided inquiry is a teaching method that provides direct learning experiences, involves activities, and invites students to carry out experimental activities in the form of discoveries that can help students understand concepts. Based on the explanations above, it is clear that the inquiry model can be interpreted as a student-centered learning model, where students are encouraged to be directly involved in conducting experiments, collecting and analyzing data, drawing conclusions, discussing and communicating.

Barthlow, (Yuliani et al., 2017) revealed that the guided inquiry-oriented learning process aims to develop students in intellectual discipline and thinking skills by asking questions and getting answers based on students' curiosity. This inquiry learning is a form of student-oriented learning approach (student centered approach). It is said that because in this method students play a very dominant role in the learning process. Characteristics of the Guided Inquiry learning model According to (Damayanti, 2014) revealed that the main characteristics of Inquiry learning are; 1) The inquiry learning model emphasizes maximum student activity to search and discover. 2) All activities carried out by students are directed at seeking and finding their own answers to something they are asking about, so that it is hoped that they can grow their sense of self-confidence. 3) The aim of using inquiry learning is to develop the ability to think systematically, logically, critically, or develop intellectual abilities as part of the mental process.

Characteristics of inquiry learning according to Suherti & Siti M.R (Pembelajaran, 2017) that is; 1) Student-centered, 2) Emphasized on the learning process and improving skills, 3) Students are given the opportunity to ask questions, 4) Conceptual in nature, 5) There is interaction between teachers and students, 6) Gaining knowledge from previous knowledge, 7) Considering interests students, 7) Get direct learning experience, 8) Connect metacognition and reflection.

Hanif, (2019) stated that critical thinking is a cognitive activity related to the use of

DOI : 10.21009/improvement.v10i2.37407

reasoning/thinking. Learning to think critically means learning to use mental processes such as paying attention, categorizing, selecting, assessing/ deciding. (Sugito, 2018) believes critical thinking is reasonable and reflective thinking that focuses on deciding what to believe or do. Critical thinking is a directed and clear process used in mental activities such as solving problems, making decisions, persuading, analyzing assumptions, and conducting scientific research, analyzing opinions or assumptions, and conducting scientific research. (Amijaya et al., 2018). Critical thinking is a systematic thinking activity that allows someone to formulate and evaluate their own beliefs and opinions. From several opinions above, critical thinking is the process of analyzing or evaluating information to understand it more deeply to form self-confidence and the information obtained that will be conveyed and how to solve problems and make decisions in resolving problems in the teaching and learning process.

The purpose of critical thinking according to Sapriya (Trimahesri & Hardini, 2019) namely to test an opinion or idea, including making considerations or thoughts based on the opinion put forward. These considerations are usually supported by reliable criteria. Critical thinking skills can encourage students to come up with new ideas or thoughts regarding life problems. Students will be trained in selecting various opinions, which ones are correct and which ones are incorrect (Salmia & Yusri, 2021). Developing critical thinking skills can help students make conclusions using data and facts that occur around students. The aim of critical thinking is to achieve in-depth understanding, while according to (Ajeng et al., n.d.) says that the purpose of critical thinking is to say that the purpose of critical thinking is simple, namely to ensure, as far as possible, that our thinking is valid and correct.

These considerations are usually supported by accountable criteria. Critical thinking skills can encourage students to come up with new ideas or thoughts regarding world problems. Students will be trained how to select various opinions, so they can distinguish which opinions are relevant and which are irrelevant, which opinions are correct and which are not correct. Can help students make conclusions by considering data and facts that occur in the field. The aspects measured in critical thinking skills are the cognitive domain at level C4 is the ability to analyze, C5 is the ability to evaluate and C6 is the ability to create. (Bloom, 2014). Critical thinking skills can encourage students to come up with new ideas or thoughts regarding world problems. Students will be trained how to select various opinions, so they can differentiate between relevant and irrelevant opinions, correct and incorrect opinions. Developing students' critical thinking skills can help students make conclusions by considering data and facts that occur in the field. Indicators of critical thinking can be seen from their characteristics, so that by having these characteristics a person can be said to have critical thinking skills. Based on the description above, this research aims to determine the influence of the Guided Inquiry learning model on Critical Thinking Skills and Science Learning Outcomes at the elementary school level.

RESEARCH METHODS

This research is quantitative research and aims to determine the Guided Inquiry learning model for critical thinking skills and Natural Sciences learning outcomes for upper class V students at SD Negeri 35 Parepare. The type of research used is quasi experimental design and the design used is non-equivalent control group (Sukmawati, 2023). Quasy experimental design, namely providing different treatment to two research groups (Samsu, 2021). The research consisted of two groups, the first group received the Guided Inquiry learning model, called the experimental class, and the second group received the conventional learning model and was called the control class. These two classes were not chosen at random.

This implementation is planned at SDN 35 Parepare. This research was carried out in the even semester, namely the even semester of 2022/2023. The population in this study was all class V students at SDN 35 Parepare consisting of 2 classes and a total of 58 students. Sampling

DOI : 10.21009/improvement.v10i2.37407

was carried out using a non-probability sampling technique with the technique taken, namely saturated sampling. Data collection techniques are used to collect data according to research procedures so that the required data is obtained. Data collection techniques are the most strategic step in research, because the main aim of research is to collect data. Data collection techniques in this research used tests, observation and documentation (Sugiyono, 2011). Meanwhile, the research instruments used are: 1) Tests, 2) Observation Sheets, 3) Documentation. The data analysis techniques used in this research are divided into descriptive analysis and inferential analysis using SPSS Version 25 software. The data collection technique used in this research is the test technique. The test technique in this research is a written test with essay questions. Written test scoring in this study used Graded Response Models. Analyzed using One-way Multivariate Analysis of Variance (One-way MANOVA) via SPSS 25.

RESULTS AND DISCUSSION

Result

The pretest is given to students at the first meeting and the posttest is given to students at the last meeting. The results of the pretest and posttest were then collected, checked and analyzed by the researcher. Statistics on students' critical thinking skills before being given treatment (pretest and posttest) are in the table below:

Table 1. Descriptive Statistics Critical thinking skills before and after being given treatment or pretest and posttest in the Experiment class

Experimental Class Critical Thinking Skills			
Variabel		Pre Test	Post Test
N	Valid	29	29
	Missing	0	0
Mean		33.45	83.72
Std. Error of Mean		3.448	1.387
Median		35.00	85.00
Mode		20[a]	80
Std. Deviation		18.570	7.468
Variance		344.828	55.778
Range		60	25
Minimum		5	70
Maximum		65	95
Sum		970	2428

(Source: Results of descriptive statistical data)

Based on the data in the table above, it is known that the experimental class had an average pretest score of 33.45 before being given treatment with the guided inquiry learning model, while the average posttest score was 83.72 after being given treatment. In the experimental class, the minimum and maximum pre-test scores were obtained, namely the minimum score was 5 and the maximum score was 65. While the post-test scores for the minimum and maximum scores were obtained, the minimum score was 70 and the maximum score was 95.

From the data above, it can be seen that the pretest and posttest scores in the experimental class with the guided inquiry learning model were treated, namely the standard deviation score

DOI : 10.21009/improvement.v10i2.37407

for the pretest was 18.570 and the standard deviation value for the posttest score for the experimental class was 7.468.

Table 2. Descriptive Statistics Critical thinking skills before and after treatment or pretest and posttest in the Control class

Control Class Critical Thinking Skills			
Variabel		Pre Control	Post Control
N	Valid	29	29
	Missing	0	0
Mean		25.52	51.69
Std. Error of Mean		1.274	2.334
Median		25.00	50.00
Mode		25	45[a]
Std. Deviation		6.859	12.567
Variance		47.044	157.936
Range		30	47
Minimum		5	30
Maximum		35	77
Sum		740	1499

(Source: Results of descriptive statistical data)

Based on the data in the table above, it is known that the control class had an average pretest score of 25.52 before being given treatment with the guided inquiry learning model, while the average posttest score was 51.69 after being given treatment. In the control class, the minimum and maximum pre-test scores were obtained, namely the minimum score was 5 and the maximum score was 35. While the post-test scores for the minimum and maximum scores were obtained, the minimum score was 30 and the maximum score was 77.

From the data above, it can be seen that the pretest and posttest scores in the control class with the guided inquiry learning model were treated, namely the standard deviation score for the pretest was 6,859 and the standard deviation score for the posttest control class was 12,567.

Table 3. Descriptive statistics of science learning outcomes before and after treatment or pretest and posttest in the experimental class and control class

Statistics					
		Pre Test Control	Post Test Control	Pre Test Experiment	Post Test Experiment
N	Valid	29	29	29	29
	Missing	0	0	0	0
Mean		29.14	49.31	34.66	85.76
Std. Error of Mean		1.955	1.836	1.588	1.299
Median		30.00	50.00	35.00	85.00
Mode		25	45[a]	30	85[a]
Std. Deviation		10.528	9.885	8.549	6.993
Variance		110.837	97.722	73.091	48.904
Range		45	35	30	25
Minimum		10	35	20	70
Maximum		55	70	50	95
Sum		845	1430	1005	2487

(Source: Results of descriptive statistical data)

DOI : 10.21009/improvement.v10i2.37407

Based on the data in the table, it is known that the control class has an average pretest score of 29.14. After not being given treatment in the form of conventional problem-based learning, there was an increase in students' science learning outcomes with an average posttest score of 49.31, and was in the low improvement category. Meanwhile, in the experimental class the average pretest score was 34.66, using guided inquiry learning there was an increase in students' science learning outcomes with an average posttest score of 85.76.

From the data above, it can be seen that the pretest score in the control class standard deviation value was 10,528 and the standard deviation value in the posttest control class score was 1,299. The minimum and maximum values in the control class are the minimum value obtained, which is 10 and the maximum value obtained is 55. Meanwhile, the posttest value for the minimum and maximum values obtained is the minimum value, namely 35 and the maximum value, namely 70.

Based on the data above, you can see that the pretest score in the experimental class treated with the Guided Inquiry learning model is the standard deviation value is 1,588 and the standard deviation value in the posttest experimental class score is 1,299. The minimum and maximum scores in the experimental class are the minimum score, which is 20 and the maximum score is 50. Meanwhile, the posttest scores for the minimum and maximum scores are obtained, the minimum score is 70 and the maximum score is 95 in the high category..

When the hypothesis prerequisite test has been met, it can be continued with the MANOVA test. The MANOVA test results were taken from the analysis of Pillae Trace, Wilk Lambda, Hotelling's Trace, and Roy's Largest Root. This analysis was carried out with the help of SPSS 25.0, namely the General Linear Model-Multivariate. The results are as follows:

Table 4. Manova Multivariate Tests

Variable	Sig	Explanation
Guided Inquiry Learning Model for critical thinking skills and IP learning outcomes	0,000	Significant

(Source: Results of descriptive statistical data)

Table 4 shows the results of the Multivariate significance test. The results of this analysis show that the F class values for Pillae Traice, Wilk Lambda, Hotelling's Trace, and Roy's Largest Root have a significance value of 0.000 < 0.05. This shows that the F values for Pillae Traice, Wilk Lambda, Hotelling's Trace, and Roy's Largest Root are all significant. So it can be concluded that there is a significant influence of the guided inquiry learning model between class variables on critical thinking skills and student learning outcomes

Discussion

Based on the results of the MANOVA test analysis, there is an influence of the Guided Inquiry Learning Model on critical thinking skills and learning outcomes of class V students at SDN 35 Parepare which shows a significance value of 0.000. 0.000 < 0.05 then Ho is rejected and Ha is accepted. Based on this, it can be concluded that there is a significant influence in the use of the Guided Inquiry Learning Model on critical thinking skills and science learning outcomes at SDN 35 Pare-pare.

Learning outcomes are a measure of student success after an evaluation of mastery of knowledge and skills is demonstrated by test scores or in the form of numbers. This is in accordance with the theory put forward by (Hamdi et al., 2022) which states that learning outcomes are the level of success of students in studying subject matter at school which is expressed in the form of scores obtained from test results.

DOI : 10.21009/improvement.v10i2.37407

The success or failure of an individual's learning process is related to many factors, both factors that come from within (internal) and factors that come from outside (external). One of the factors that comes from within is interest in learning. This is in the opinion of Oemar Hamalik (2003) that learning with interest will encourage students to learn better than learning without interest. If a student in the teaching and learning process is supported by a high interest in learning, then the student can provide the will and encouragement from within the student to study harder and try to deepen the material to improve his learning achievement. Meanwhile, one of the external factors for learning achievement is the use of study time outside of class hours. As the opinion expressed by (Sholihin, 2013) that one of the principles of learning is that learning activities take place at any place and time. Learning activities not only take place at school and in the library but also at home, in the community, and even anywhere learning can occur. Learning also happens all the time, not only during class hours. Thus, it can be concluded that the guided inquiry learning model improves critical thinking skills and student learning outcomes in science subjects. The guided inquiry learning model involves students actively in the learning process. Students learn and work together in small groups or individually. Apart from that, it also invites students to be independent, creative, responsible, and work together with friends to solve problems. Thus, variations with the guided inquiry learning model have proven to be effective in improving students' critical thinking abilities and learning outcomes.

CLOSING

Based on research conducted at SDN 35 Parepare, it can be concluded that the results of the research, hypothesis testing and discussion presented can be concluded that: there is an influence of the guided inquiry learning model on critical thinking skills and learning outcomes for class V

students at SDN 35 Parepare. This is proven by the test results The hypothesis is that which shows a significance value of 0.000. 0.000 < 0.05 then Ho is rejected and Ha is accepted.

BIBLIOGRAPHY

Ajeng, A. R., Parera, I., Ningsih, R., & Sancaya, S. A. (n.d.). *Bimbingan Peningkatan Kemampuan Berpikir Kritis Siswa melalui Penggunaan Teknik Diskusi Kelompok*. 35–39.

Amijaya, L. S., Ramdani, A., & Merta, I. W. (2018). Pengaruh Model Pembelajaran Inkuiri Terbimbing Terhadap Hasil Belajar Dan Kemampuan Berpikir Kritis Peserta Didik. *Jurnal Pijar Mipa*, *13*(2), 94–99. https://doi.org/10.29303/jpm.v13i2.468

Amri, S. (2010). *Proses pembelajaran kreatif dan inovatif dalam kelas: Metode, landasan teori praktis dan penerapannya*. Jakarta Prestasi Pustakaraya.

Arikunto, S. (2019). *Dasar-dasar Evaluasi pendidikan*. Jakarta.

Asmawati, E. Y. (2015). Lembar Kerja Siswa (Lks) Menggunakan Model Guided Inquiry Untuk Meningkatkan Keterampilan Berpikir Kritis Dan Penguasaan Konsep Siswa. *Jurnal Pendidikan Fisika*, *3*(1). https://doi.org/10.24127/jpf.v3i1.13

Bloom, Benyamin.S. (2014). *Taxonomy of Educational Objective*. Longman.

Damayanti, I. (2014). Penerapan Model Pembelajaran Inkuiri Untuk Meningkatkan Hasil Belajar Mata Pelajaran Ipa Sekolah Dasar. *Jpgsd*, *2*(3), 1–12.

Ebiendele Ebosele Peter. (2012). Critical thinking: Essence for teaching mathematics and mathematics problem solving skills. *African Journal of Mathematics and Computer Science Research*, *5*(3), 39–43. https://doi.org/10.5897/ajmcsr11.161

Hamdi, S., Triatna, C., & Nurdin, N. (2022). Kurikulum Merdeka dalam Perspektif Pedagogik. *SAP (Susunan Artikel Pendidikan)*, *7*(1), 10–17. https://doi.org/10.30998/sap.v7i1.13015

Hanif, M. (2019). Jurnal Pendidikan | Jurnal Pendidikan. *Jurnal Pendidikan IPS*, *4*(2), 53–60.

Hayati, L., Loka, I., & Anwar, Y. A. S. (2019). Pengaruh Model Pembelajaran Inkuiri Terbimbing Dengan. *Chemistry Education Practice*, *2*(2), 190–195.

Pembelajaran, A. B., & Belajar, P. (2017). *Bab Ii Kajian Untuk Masalah 1*. 9–25.

Pratiwi SN, Cari C, A. N. (2019). Pembelajaran IPA Abad 21 dengan Literasi Sains Siswa. *J Mater dan Pembelajaran Fis*, *9(1)*, 34–42.

Rustini, T., & Tjandra, F. (2016). Penggunaan Model Inkuiri Untuk Meningkatkan Kemampuan Berpikir Kritis Siswa Dalam Pembelajaran IPS Di SD. *EduHumaniora | Jurnal Pendidikan Dasar Kampus Cibiru*, *4*(2). https://doi.org/10.17509/eh.v4i2.2829

Salmia, & Yusri, A. M. (2021). Peran Guru dalam Pembelajaran Abad 21 di Masa Pandemik Covid-19. *Indonesian Journal of Primary Education*, *5*(1), 82–92. http://ejournal.upi.edu/index.php/

Samsu. (2021). *Metode Penelitian* (Nomor 17).

Setiasih, S. Della, & Panjaitan, R. L. (2016). Penggunaan Model Inkuiri Untuk Meningkatkan Hasil Belajar Siswa Pada Materi Sifat-Sifat Magnet Di Kelas V Sdn Sukajaya Kecamatan Jatinunggal Kabupaten Sumedang. *Jurnal Pena Ilmiah*, *1*(1), 421–430.

Sholihin. (2013). *Hakikat Hasil Belajar Matematika*. http://rujukanskripsi.blogspot.com/2013/06/kajian-teori-hakikat- hasil-belajar.html.

Sugiono. (2011). *Metode Penelitian Kuantitatif Kualitatif dan R&D*. Alfabeta.

Sugito. (2018). *Berpikir Kritis*. Tarsito.

Sukmawati, Salmia, S. (2023). Population, Sample (Quantitative) and Selection of Participants/Key Informants (Qualitative). *Edumaspul - Jurnal Pendidikan*, *Vol. 7 – N*(6), 131–140. https://doi.org/https://doi.org/10.33487/edumaspul.v7i1.5259

Trimahesri, I., & Hardini, A. T. A. (2019). Peningkatan Kemampuan Berpikir Kritis dan Hasil Belajar Pada Mata Pelajaran Matematika Menggunakan Model Realistic Mathematics Education. *Thinking Skills and Creativity Journal*, *2*(2), 111–120.

Ulansari, P. T., Ansori, I., & Yennita, Y. (2018). Penerapan Model Pembelajaran Inkuiri Untuk Meningkatkan Aktivitas Dan Hasil Belajar Siswa. *Diklabio: Jurnal Pendidikan dan Pembelajaran Biologi*, *2*(1), 27–33. https://doi.org/10.33369/diklabio.2.1.27-33

Yuliani, S., Tindangen, M., & Rambitan, V. (2017). Analisis Permasalahan Guru Terkait Perangkat Pembelajaran Berbasis Model Inkuiri Terbimbng dalam Pembelajaran IPA dan Pemecahannya. *Jurnal Pendidikan: Teori, Penelitian, dan Pengembangan*, *2*(4), 535–539.