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Analysis of the Application of Concept Acquisition Learning Model in Improving Students' Mathematical Understanding

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ABSTRACT

This study investigates the implementation of the Concept Acquisition Learning Model (CALM) to enhance students' conceptual understanding of mathematics at SMPIT Al-Biruni Mandiri Jipang in Makassar, South Sulawesi, Indonesia. Amidst growing concerns about low mathematics comprehension among middle school students, this research addresses an urgent need for innovative pedagogical approaches. Employing a descriptive qualitative design with a phenomenological method, data were gathered through classroom observations and in-depth interviews with a mathematics teacher using CALM in a seventh-grade class. The analysis, conducted through data reduction, presentation, and conclusion drawing, reveals that CALM fosters active student engagement and supports deeper comprehension of mathematical concepts. The findings underscore CALM's potential as a novel and effective instructional strategy, capable of shifting passive learning patterns towards more meaningful cognitive involvement. While the model shows promise, its success is contingent on careful adaptation of teaching strategies and adequate time management. This study contributes to the growing discourse on mathematics education by positioning CALM as a viable alternative for improving conceptual learning outcomes in secondary education settings.
Keywords: CALM, Math Learning, Student Understanding.

ABSTRAK

Penelitian ini mengkaji penerapan Concept Acquisition Learning Model (CALM) dalam meningkatkan pemahaman konseptual matematika siswa di SMPIT Al-Biruni Mandiri Jipang, Makassar, Sulawesi Selatan, Indonesia. Di tengah kekhawatiran yang meningkat terhadap rendahnya pemahaman matematika di tingkat sekolah menengah, penelitian ini menjawab kebutuhan mendesak akan pendekatan pedagogis yang inovatif. Dengan menggunakan desain kualitatif deskriptif dan metode fenomenologis, data dikumpulkan melalui observasi kelas dan wawancara mendalam dengan guru matematika yang menerapkan CALM di kelas VII. Analisis dilakukan melalui reduksi data, penyajian data, dan penarikan kesimpulan. Hasil penelitian menunjukkan bahwa CALM mendorong keterlibatan aktif siswa dan mendukung pemahaman konsep matematika yang lebih mendalam. Temuan ini menegaskan potensi CALM sebagai strategi pembelajaran yang baru dan efektif, yang mampu menggeser pola pembelajaran pasif menuju keterlibatan kognitif yang lebih bermakna. Meskipun model ini menunjukkan prospek yang menjanjikan, keberhasilannya sangat bergantung pada penyesuaian strategi pengajaran dan manajemen waktu yang tepat. Penelitian ini memberikan kontribusi terhadap diskursus pendidikan matematika dengan memposisikan CALM sebagai alternatif yang layak untuk meningkatkan hasil belajar konseptual di tingkat pendidikan menengah.
Kata kunci: MPPK, Pembelajaran Matematika, Pemahaman.

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Introduction

Education is one of the steps in creating a smart and quality young generation. The educational process plays an important role in shaping quality individuals as human resources, who will later become the backbone of nation and state development (Sari & Harudu, 2018; Putri et al., 2022). Quality higher educatiosn is the key to creating educated humans who have the intelligence, skills, and integrity to advance various fields professionally (Kusuma & Dewi, 2021). Thus, the quality of education determines the nation's progress and effective learning. In formal education, effective learning requires active learner participation, room for exploration, and a fun learning atmosphere. It is supported by a conducive learning environment, making students feel relaxed and motivated (Patti et al., 2023). Its effectiveness is measured based on the achievement of the formulated learning objectives (Sungkono et al., 2024). Effectiveness in formal education is very rare in learning mathematics because it requires focus and understanding of concepts.

Mathematics is a process of understanding, translating, and deducing its concepts based on personal knowledge (Agustina et al., 2021; Zahirah et al., 2024). Mathematics has a central role in building students' logical, analytical, and systematic thinking skills. Effective mathematics learning emphasizes the development of skills and understanding of concepts during the learning process, not just the final results (Arifah & Saefudin, 2017; Kamila et al., 2024). Basically, mathematics aims to train the mindset of students to be able to solve complex problems. However, most students feel that math is a difficult subject that only genius students can master (Sucipto & Firmansyah, 2021) . One of the factors that make students' interest in mathematics low is learning that only focuses on the teacher which causes the lesson to become monotonous and boring for students (Iskandar, 2019). So far, the common approach to learning mathematics by students is memorizing formulas without understanding the basic concepts (Arifah & Saefudin, 2017). So, students should understand math formulas by knowing the concepts.

Understanding concepts as a theoretical basis for learning that emphasizes the importance of anchoring knowledge before entering more complex material (Hinojosa, 2015). Therefore, students must first master the basic concepts that form the foundation of mathematical principles and theories. This confirms that understanding mathematical concepts is very important in solving complex mathematical problems (Hutalagung, 2017; Tuqalby et al., 2017). Students who have a good understanding of concepts will be able to analyze a concept and provide examples in detail and clearly (Istikomah & Jana, 2018). One of the causes of students' low understanding of concepts is due to the use of learning models (Wijaya et al., 2018). This shows the importance of

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using innovative learning models in student learning activities. According to (Sudibyo et al., 2016), the learning model is explained as a guideline in learning consisting of student experiences in the form of behaviors and deeds in the implementation process.

One learning model that focuses on students' understanding of concepts is the concept acquisition learning model. The concept acquisition learning model (CALM) is a learning approach that uses examples and non-examples to help students understand the material better (Elok et al., 2017). This learning model was originally designed by Joyce and Weil based on research conducted by Jerome Bruner (Afifah, 2019). Its purpose is not only to develop inductive thinking but also to analyze and expand understanding of concepts. This model is designed to help students understand concepts deeply through the processes of exploration, analysis, and reinforcement (Pauzan, 2024). If students can interpret concepts in the mathematics learning process, they will simultaneously develop the five essential competencies in question. Therefore, concept understanding plays a key role in forming the basic skills that students must master to achieve mastery of mathematics (Muthiah & Siregar, 2024). The Concept Mastery Model helps students develop a better understanding of concepts through the analysis of systematic thinking processes (Yuliati et al., 2018). Therefore, concept understanding is very important in mathematics learning.

Previous studies similar to this research include analyzing the application of PBL, PjBL, cooperative and other learning models (Amalia & Dewi, 2024; Hasibuan et al., 2023; Amriani et al., 2024). Some researchers focus on procedural aspects or collaborative discussions. There are studies whose focus is limited to the ability to work together with students. However, no one has studied the analysis of the application of concept acquisition learning models applied in the classroom. Thus, the purpose of this study is to analyze the application of the concept acquisition learning model and to innovate the application of the concept acquisition learning model for seventh grade students of SMPIT Al-Biruni Mandiri Jipang Makassar.

Research Methods

This study employed a descriptive qualitative approach using a phenomenological method to explore the implementation of the Concept Acquisition Learning Model (CALM) in mathematics instruction. Phenomenology, as a scientific discipline, aims to uncover the deeper meanings of lived experiences. The research was conducted on December 13, 2024, at SMPIT Al-Biruni Mandiri Jipang, located on Jalan Jipang Raya No. 20-26, Karunrung, Rappocini District, Makassar City, South Sulawesi, Indonesia. Data collection methods included classroom observation, interviews, and document analysis. The observation focused on class VII, consisting of seven students.

Observation was conducted during one full teaching session for 90 minutes, in which the researcher directly observed how the mathematics teacher implemented CALM in the classroom. Following the observation, a semi-structured interview was held with the same mathematics teacher to explore the rationale, implementation stages, and perceived effectiveness of the learning model. Document analysis included a review of supporting materials such as the teacher's lesson plans (RPP), student worksheets, assessment results, and the teacher's reflection notes. These documents were analyzed to support data triangulation and to enrich the interpretation of findings.

Data analysis involved three main stages: data reduction, data presentation, and conclusion drawing. Data reduction included summarizing, coding, exploring emerging themes, and clustering findings into broader patterns (Rijali, 2019). Data presentation included organized descriptions from observations, interviews, and documentation. The final stage involved drawing conclusions based on all sources of data to answer the research questions regarding the application of CALM in the selected classroom context.

Result and Discussions

Based on data collection obtained from SMPIT Al-Biruni Mandiri Jipang Makassar through interviews with Mathematics teachers, it is known that the teacher has applied the Concept Acquisition Learning model in the Mathematics subject of Algebra. Regarding the application of the model and its impact on improving students' learning understanding, the author will elaborate on it in the following points.

Application of the Concept Acquisition Learning Model

The application of the Concept Acquisition learning model in Mathematics subjects at SMPIT Al-Biruni Mandiri Jipang Makassar has proven effective in improving students' learning understanding. The effectiveness of this model is because it has gone through considerations and systematic stages that have been carried out creatively and innovatively by the teacher.

Initial Problem Analysis

Before choosing this concept acquisition learning model, teachers at SMPIT Al-Biruni Mandiri considered various other learning models, some models may not be fully suitable for the objectives to be achieved. Therefore, the concept understanding approach was chosen as the main method. Although it takes more time as it demands a deep focus on the material, this approach is considered essential to help junior high school students truly understand the reasoning behind a concept.

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This approach is also designed to train students to analyze a concept in depth, so the assessment of students focuses on their analytical skills, not just their memorization skills.

The Process of Implementing the Concept Acquisition Model in the Classroom

The concept understanding approach is applied to basic materials such as algebra, equations, and inequalities. Based on Table 1, we can see the implementation of the concept acquisition model in the classroom.

Table 1. The Main Stages in Implementing the Concept Acquisition Model in the Classroom

Stages	Description
Making Learning Media	Learning media is designed to be interesting and relevant to the age of the students, such as interactive games or designs from Canva. This aims to keep students' attention and avoid boredom.
Connecting to Dail y Life	The material is taught through simple examples that are close to students' lives, such as representing 2 apples + 3 mangoes as X and Y in algebraic form. This approach makes it easier for students to understand the concept before getting into the basic theory.
Application and Discussion	After the concepts are explained, students are asked to analyze on their own before discussing together. Discussions help clarify students' understanding and identify obstacles.
Self Evaluation	With a small number of students (7 people), evaluation can be done individually to explore deeper understanding. This approach ensures each student can learn critically and focus.

In Table 1, the concept understanding approach is applied systematically to help students understand basic materials such as algebra, equations and inequalities. The process begins with the creation of interesting learning media to keep students focused, then the concepts are taught by connecting them to everyday life to make them easier to understand before going into the basic theory. After that, students are given the opportunity to analyze on their own and discuss in small groups to deepen their understanding and identify obstacles. Finally, self-evaluation is conducted, where the teacher pays more attention to each student's understanding due to the relatively small number of students (7 people), so that learning can take place more effectively and in depth. With a better understanding of this stage, the next step is to maximize students' concentration, because good attention will increase the effectiveness of learning.

Table 2. Strategies to Maximize Student Concentration

Strategy	Description
Starting with Basic Concepts	Provides examples of the application of concepts in everyday life before the theory to increase relevance and understanding.
Self or Group Evaluation	Conducted after explaining basic concepts, often interspersed with games or quizzes to keep the atmosphere fun.
Crossword or Initial Challenge	Used as an introduction to the material to attract students' attention and foster curiosity.
Repetitive Approach	Provides basic concepts, relates them to everyday life, then evaluates, to reinforce understanding from multiple perspectives.
Focus on Different Evaluations	The evaluation not only measures concept understanding, but also the ability to relate the material to everyday life and improve analysis.

In Table 2, strategies to maximize student concentration are designed to make learning more interesting and effective. Starting with basic concepts helps students understand the material by connecting it to everyday life before going into theory. Self or group evaluations are conducted after concept explanation, often interspersed with games or quizzes to keep the atmosphere fun. To attract attention from the start, crossword puzzles or initial challenges are used as an introduction to the material to foster curiosity. In addition, an iterative approach is applied by linking the basic concepts to various situations, so that understanding is strengthened. Finally, the focus on differentiated evaluation ensures that in addition to understanding the concepts, students are also able to relate them to real life and improve their analytical skills. With this strategy, learning becomes more interactive and keeps students' focus optimized.

The following are the results of interviews with a mathematics teacher at SMP IT Al-Biruni Mandiri Jipang Makassar, regarding how students respond to the application of the concept acquisition model, how the application of the concept acquisition model is achieved, what examples of the successful application of the concept acquisition model are, and what media the teacher uses in the success of this concept acquisition model after applying the stagStudent Value After Learninges and strategies in the table above.

Students' Response to the Concept Acquisition Model

At the beginning of learning, students often show boredom, especially if the explanation of the material lasts too long. To overcome this, teachers choose a shorter

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and more interactive method of gradual delivery. Students' responses tend to be more positive, especially when interspersed with quizzes, games or other fun activities. To maintain enthusiasm, the teacher provides incentives in the form of rewards, such as stars, to students who successfully solve problems correctly.

Table 3. Student Scores After Learning

Students	Formative Score										Average
	CP1	CP2	CP3	CP4	CP5	CP6	CP7	CP8	CP9	CP10	
1	90	88	88	89	85	80	80	80	82	80	84.2
2	90	90	89	80	89	83	87	81	82	8	86
3	91	90	91	86	87	89	89	90	90	90	89.3
4	93	95	94	91	91	89	92	95	94	90	92.4
5	92	90	90	90	90	89	89	85	85	89	88.9
6	80	80	82	82	80	80	80	80	80	80	80.4
7	92	91	92	89	89	90	93	95	90	92	91.3

Table 3 presents data on the total and average scores of students after the implementation of the reward system in the form of stars during math learning. Rewards were given to students who successfully completed the problems correctly. The highest scores reflect students who consistently receive rewards and show increased motivation and enthusiasm in learning. In this case, students 4 and 7 students obtained scores of 92.4 and 91.3, respectively. This method received a very good response from students, increasing their motivation to actively participate in learning and rewarding their efforts.

Achievement of the Concept Acquisition Model in Understanding Mathematical Concepts

The success of this approach can be seen from the positive response of students, even though this concept is relatively new to them. So far, students are accustomed to the mindset that mathematics is a difficult subject that must be memorized, and this is what we want to change. For example, for material such as algebra, it is not enough to be taught in 2-3 meetings. It takes 5-6 meetings with consistent repetition so that students are really able to analyze concepts, not just memorize them.

Based on the implementation that the teacher did, both in this semester and the previous semester, there was a positive development. Although the results are not yet fully maximized, teachers can see that students are starting to leave the dependence on memorization and are more able to analyze concepts independently. Figure 1 shows the results of the work of students who managed to understand the concept after the application of the model.

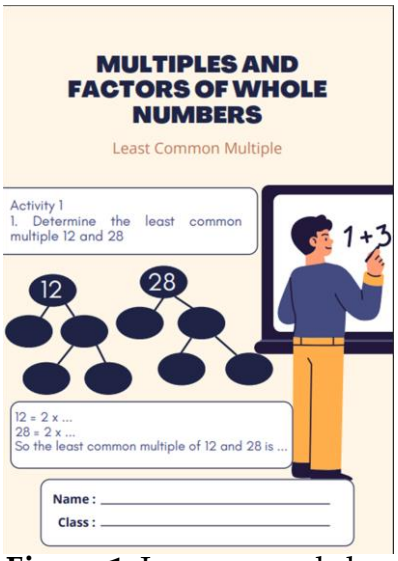

Figure 1. Learner worksheet

Based on Figue 1, the tasks should be relevant to students' lives so that they can understand them more easily. As one example, for multiples and factors of integers, I give students the task of determining which days they will meet again in a recurring schedule. I ask them to write down their routine activity schedule, for example, sports day which is held every 3 days and class picket day which is done every 5 days. Students then calculate the Least Common Multiple of 3 and 5 to find out after how many days the two activities will fall on the same day again. After that, I instructed the students to put their answers into the learner worksheet. By giving examples that are really relevant to their lives, it can be easier to understand the concepts of scale and comparison. Tasks like this also make them more interested and motivated to learn because it is directly related to things they experience everyday.

The Media Used And Its Effectiveness

The main benchmark in using learning media is to create attractive media by utilizing technology optimally. One of the main media that is often used is PowerPoint (PPT). Every meeting, the PPT made is always different, both in terms of templates, colors, and additional elements such as GIFs or emoticons to attract students' attention. In addition, for evaluation or assessment media, various platforms are used, such as Quizizz, Luckt, Bamboozle, and Wordwall. Websites that students like, such as Gimkit, are also utilized. This media combines learning with games, so that students feel happy and motivated to understand the material.

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The stages applied include providing an in-depth understanding of the concept first, linking the concept to everyday life, then closing the learning with a game or game-based evaluation. This method aims to make students not only understand the concept but also be able to analyze independently.

The increase in the results of the concept comprehension test in Table 3 and the success of students in explaining concept examples as shown in Figure 1 provide a clear picture of the use of the concept processor model as an innovative solution in the development of students' concept comprehension skills (CALM). In line with Testolin (2020) research which explains that the CALM model provides an understanding to students, especially on numerical abilities in solving mathematical problems. This is as a result of a good understanding of concepts from students. These results are also in line with the research of Christiani and Sudibyo (2017) and Tias et al. (2024) explaining that the concept acquisition learning model is able to have a positive impact on students' concept understanding. Research by (Hulwani et al., 2019) explains the same that concept mastery is influenced by innovative learning models related to conceptual, one of which is the concept acquisition model. There was an increase in the results of the concept understanding test of students who were given the model treatment. The CALM model provides a reference for educators to develop a comprehensive understanding of concepts.

Constraints in Applying Models in Mathematics Learning

The interview results obtained information about several obstacles in implementing the concept acquisition model, namely making media, student boredom, and students learning patterns. Making relevant and interesting learning media in mathematics is often a challenge for educators. Mathematics requires clear visualization so that abstract concepts can be more easily understood by students. However, the process of creating this media requires adequate time, skills and resources. Not all educators have the ability to design interactive media or use technology optimally. As a result, the media used tends to be monotonous and does not support the understanding of complex concepts. Sejalan dengan hasil penelitian yang disampaikan oleh Hulwani et al. (2019) that one of the obstacles faced in the use of this model is the availability of media. The lack of concrete media available is a deficiency in learning because not all students have good cognitive skills, so real media is needed to understand a concept.

Students often feel bored in learning math, especially if the methods used are not varied. Learning that focuses too much on theory and practice problems without any innovation in the presentation of material can lead to low student motivation. This boredom has an impact on the lack of active participation in the learning process and

decreased learning outcomes. Therefore, a more creative approach is needed, such as educational games, group discussions, or the use of interactive math applications. These results are in line with the results of the study Tias et al. (2024) who mentioned that there needs to be an innovative method used, for example, small groups so that students can actively interact with group friends or teachers. This can overcome students' boredom in learning mathematics, especially in mastering a concept.

Each student has a different learning pattern, both in terms of speed of understanding the material and preference of learning method (visual, auditory, kinesthetic). In one class, educators have to deal with this diversity, which is often a big challenge. The concept acquisition learning model requires flexible strategies to reach all students with various learning patterns. If not managed well, some students may fall behind in understanding the concepts taught. Therefore, a differentiated approach to learning is needed as well as continuous evaluation to ensure all students can follow the learning process optimally.

Conclusion

The implementation of the Concept Acquisition Learning Model (CALM) in seventh-grade mathematics at SMPIT Al-Biruni Mandiri Jipang, Makassar, has been shown to effectively enhance students' understanding of mathematical concepts. Based on interviews and classroom observations, the model promotes active student engagement through structured activities such as data presentation, concept identification, hypothesis testing, and reflective thinking. This approach encourages deeper conceptual understanding, fosters analytical skills, and reduces reliance on rote memorization. To further support student interest and engagement, teachers integrate interactive media, including digital tools such as PowerPoint, Quizizz, and Wordwall. Despite its benefits, the application of CALM faces several challenges, including the time and expertise required to develop engaging materials, student fatigue, and varied learning styles. Addressing these issues through creative instructional strategies and differentiated learning approaches is essential to ensure inclusivity and maximize student learning outcomes. Overall, this study affirms CALM as a viable and effective pedagogical model for improving mathematics instruction in middle school settings.

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References

Afifah, N.. (2019). Penerapan Model Pembelajaran Pencapaian KonsepUntuk Meningkatkan Pemahaman Konsep. *Jurnal Numeracy*, *6*(2), 1–18. https://doi.org/10.46244/numeracy.v6i2.480

Agustina, L., Rochmad, & Isnarto. (2021). Kemampuan pemahaman konsep matematis pada mata kuliah pengantar dasar matematika. *PRISMA: Proseding Seminar Nasional Matematika*, *4*, 262–267. https://journal.unnes.ac.id/sju/prisma/article/view/44938

Amalia, I. R., & Dewi, N. R. (2024). Analisis Model Pembelajaran Problem Based Learning Untuk Meningkatkan Berpikir Kritis Peserta Didik. *PRISMA, Prosiding Seminar Nasional Matematika*, *7*, 281–289. https://proceeding.unnes.ac.id/prisma/article/view/2963/2426

Amriani, S. D., Uzzakah, I., Prakoso, R. A., Sabella, P. A., Surur, M., & Agusti, A. (2024). Analisis penerapan model pembelajaran project based learning (PjBL) untuk meningkatkan kreativitas siswa. *Jurnal Kajian Penelitian Pendidikan dan Kebudayaan*, *2*(2), 13-25. https://doi.org/10.59031/jkppk.v2i2.316

Arifah, U., & Saefudin, A. A. (2017). Matematika Dengan Menggunakan Model Pembelajaran Guided Discovery. *UNION: Jurnal Pendidikan Matematik*, *5*(3), 263–272. https://doi.org/10.30738/.v5i3.1251

Christiani, D. E. (2017). Penerapan Model Pembelajaran Pemerolehan Konsep untuk Meningkatkan Pemahaman Siswa Kelas VIII pada Materi Tekanan. *Pensa: E-Jurnal Pendidikan Sains*, *5*(3), 341-344. https://doi.org/10.26737/jipf.v3i2.577

Elok, D., Christiani, & Sudibyo. (2017). Penerapan Model Pembelajaran Pemerolehan Konsep Untuk Meningkatkan Pemahaman Siswa Kelas Viii Pada Materi Tekanan. *Pensa E-Jurnal: Pendidikan Sains*, *5*(03), 341–344. https://ejournal.unesa.ac.id/index.php/pensa/article/view/21476

Hasibuan, H. A., Rahayu, P., Sihombing, P. R. U. N., & Nasution, S. K. (2024). Meta analisis model pembelajaran kooperatif tipe group investigation terrhadap hasil belajar fisika siswa di sma. *Jurnal Bintang Pendidikan Indonesia*, *2*(1), 54-66. https://doi.org/10.55606/jubpi.v2i1.2366

Hinojosa, L. M. M. (2015). Contributions of Educational Psychology to University Education. *Psychology*, *6*(3), 177–190. https://doi.org/10.4236/psych.2015.63017

Hulwani, A., Susilawati, S., & Kosim, K. (2019). Pengaruh model perolehan konsep dengan metode demonstrasi terhadap penguasaan konsep fisika siswa SMA. *Jurnal Pendidikan Fisika Dan Teknologi*, *5*(2), 319-326. https://doi.org/10.29303/jpft.v5i2.1377

Hutalagung, R. (2017). Peningkatan Kemampuan Pemahaman Konsep Matematis Siswa Melalui Pembelajaran Guided Discovery Berbasis Budaya Toba di SMP

Negeri1 Tukka. *Journal of Mathematics Education and Science, 2*(2), 70-77. https://doi.org/10.30743/mes.v2i2.133

Iskandar, I. (2019). *Hasil Belajar Matematika: Strategi Metakognitf dan Keyakinan Tentang Matematika*. Jakarta: Universitas Negeri Jakarta.

Istikomah, D. A., & Jana, P. (2018). Kemampuan pemahaman konsep matematis mahasiswa melalui pendekatan pembelajaran saintifik dalam perkuliahan aljabar matrik. In *Prosiding Seminar Nasional Pendidikan Matematika Etnomatnesia*, 927-932.

Kamila, Q. A. N., Asbari, M., & Darmayanti, E. (2024). Merdeka Belajar: Memahami Konsep Pembelajaran Masa Kini. *Journal of Information Systems and Management (JISMA)*, *3*(2), 104–110. https://doi.org/10.4444/jisma.v3i2.909

Kusuma, I. L., & Dewi, M. W. (2021). Sosialisasi Pentingnya Pendidikan Tinggi Bagi Lulusan Smu Sederajat (SMAN 2 Karanganyar). *Jurnal Budimas*, *3(2), 222-226*. https://doi.org/10.29040/budimas.v3i2.2437

Muthiah, S., & Siregar, N. (2024). Upaya Meningkatkan Kemampuan Pemahaman Konsep Matematika dengan Menggunakan Model Pembelajaran Kooperatif Tipe STAD. *ALFIHRIS: Jurnal Inspirasi Pendidikan*, *2*(4), 57-67. https://doi.org/10.59246/alfihris.v2i4.996

Patti, R. R., Dacholfany, M. I., & Andayani, S. (2023). Pengaruh Kinerja Guru Dan Fasilitas Pembelajaran Terhadap Pembelajaran Efektif Di Sman 1 Seputih Agung Lampung. *POACE: Jurnal Program Studi Adminitrasi Pendidikan*, *3*(1), 70–79. https://doi.org/10.24127/poace.v3i1.3393

Pauzan, P. (2024). Theory in Second Language Acquisition (Recognition of Concepts Toward Krashen's Second Language Acquisition Theory for Five Main Hypotheses). *Journal on Education*, *6*(4), 20876–20888. https://doi.org/10.31004/joe.v6i4.6210

Putri, F. P., Nugroho, A. A., & Utami, R. E. (2022). Analisis Minat Belajar Matematika Siswa yang Diterapkan pada School from Home (SFH). *Imajiner: Jurnal Matematika Dan Pendidikan Matematika*, *4*(4), 355–362. https://doi.org/10.26877/imajiner.v4i4.10856

Rijali, A. (2019). Analisis Data Kualitatif. *Alhadharah: Jurnal Ilmu Dakwah*, *17*(33), 81-90. https://doi.org/10.18592/alhadharah.v17i33.2374

Sari, J. M., & Harudu, L. (2018). Persepsi Masyarakat Nelayan Pesisir Tentang Pentingnya Pendidikan Formal Di Desa Latawe Kecamatan Napano Kusambi Kabupaten Muna Barat. *Jurnal Penelitian Pendidikan Geografi*, *3*(4), 1–16. https://doi.org/10.36709/jppg.v3i4.4820

Sucipto, M. F., & Firmansyah, D. (2021). Analisis Minat Belajar Siswa SMP pada Pembelajaran Matematika. *Jurnal Pembelajaran Matematika Inovatif*, *8*(2), 376–380. https://doi.org/10.22460/jpmi.v4i4.p799-808

Sudibyo, E., Jatmiko, B., & Widodo, W. (2016). The Effectiveness of CBL Model to

Improve Analytical Thinking Skills the Students of Sport Science. *International Education Studies*, *9*(4), 195-203. https://doi.org/10.5539/ies.v9n4p195

Sungkono, S., Hakim, M.L., Trilisiana, N., & Prabowo, M. (2024). Pembelajaran yang Efektif, Efisien, dan Menyenangkan dengan Media Pembelajaran Bagi Guru Sekolah Dasar di Wilayah Koordinator Pendidikan Bulu Sukoharjo. *Jurnal ABDI*, *9*(2), 195–199. https://doi.org/10.26740/abdi.v9i2.27275

Testolin, A. (2020). The challenge of modeling the acquisition of mathematical concepts. *Frontiers in human neuroscience*, *14*(1), 1-9. https://doi.org/10.3389/fnhum.2020.00100

Tias, A. A., Anam, F., & Suharti, S. (2024). Peningkatan Pemahaman Konsep Matematis Melalui Model Pembelajaran Pemerolehan Konsep untuk Siswa SMP. *Jurnal Pendidikan Matematika dan Integrasinya*, *3*(2), 34-40. https://doi.org/10.62426/

Tuqalby, R., Sutrio,S., & Gunawan, G. 2017. Pengaruh Strategi Konflik Kognitif terhadap Penguasaan Konsep pada Materi Fluida Siswa Sman 3 Mataram Tahun Ajaran 2016/2017. *Jurnal Pendidikan Fisika dan Teknologi, 3*(1), 8-13. https://doi.org/10.29303/jpft.v3i1.317

Wijaya, T. U. U., Destiniar, D., & Mulbasari, A. S. (2018). Kemampuan pemahaman konsep matematis siswa dengan menggunakan model pembelajaran auditory intellectually repetition (AIR). In *Prosiding Seminar Nasional Program Pascasarjana Universitas PGRI Palembang*, 431-435.

Yuliati, Y., Maridi, M., & Masykuri, M. (2018). The Influence of Biology Learning Using Concept Attainment Model on Student's Cognitive Learning Achievement. *Journal of Education and Learning (EduLearn)*, *12*(4), 766–774. https://doi.org/10.11591/edulearn.v12i4.9296

Zahirah, A. A., Devi, W. S., & Widyasari, N. (2024). Analisis Minat Belajar Peserta Didik pada Mata Pelajaran Matematika di SMA Daarul Khoir Nglipar. *Seminar Nasional dan Publikasi Ilmiah (SEMNASFIP)*, 1724–1729. https://jurnal.umj.ac.id/index.php/SEMNASFIP/article/view/23749/11042