



Improving Problem-Solving Skills Through the Discovery Learning Model Assisted by Concrete Objects

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Abstract

Based on the research findings and discussion, it can be concluded that the implementation of the Discovery Learning model assisted by concrete objects enhances students' mathematical problem-solving skills. This is evidenced by the increase in students' average scores from the pretest to the posttest, a finding further supported by the N-Gain analysis. Students taught using the Discovery Learning model with concrete objects demonstrated superior mathematical problem-solving skills compared to those taught using conventional methods. This was confirmed by hypothesis testing using an Independent Sample t-test, which revealed a significant difference between the experimental and control classes. The use of the Discovery Learning model with concrete objects enables students to engage actively in the learning process, thereby helping them grasp mathematical concepts more meaningfully and improving their mathematical problem-solving abilities.

Keywords: Discovery Learning, Concrete Objects, Problem Solving Skills

Abstrak

Berdasarkan hasil penelitian dan pembahasan yang telah dilakukan, dapat disimpulkan bahwa penerapan model *Discovery Learning* berbantuan media benda konkret dapat meningkatkan kemampuan pemecahan masalah matematika siswa. Hal ini ditunjukkan oleh adanya peningkatan nilai rata-rata siswa dari hasil pretest ke posttest yang diperkuat dengan hasil analisis N-Gain. Kemampuan pemecahan masalah matematika siswa yang mengikuti pembelajaran menggunakan model *Discovery Learning* berbantuan media benda konkret lebih baik dibandingkan dengan siswa yang mengikuti pembelajaran menggunakan model konvensional. Hal ini dibuktikan melalui hasil uji hipotesis menggunakan Independent Sample t-test yang menunjukkan adanya perbedaan yang signifikan antara kelas eksperimen dan kelas kontrol. Penggunaan model *Discovery Learning* berbantuan media benda konkret memberikan kesempatan kepada siswa untuk terlibat aktif dalam proses pembelajaran, sehingga membantu siswa memahami konsep matematika secara lebih bermakna dan meningkatkan kemampuan pemecahan masalah matematika.

Kata Kunci: Discovery Learning, Benda Konkret, Kemampuan Pemecahan Masalah

Research Background

The world of education is not spared from teaching and learning. Learning is a process of transferring knowledge owned by teachers to students through subjects. One of the subjects that has a very important role is Mathematics. Mathematics provides students with various abilities to organize thinking skills and solve problems, especially in daily life.

It is undeniable that humans in their lives are always faced with problems that require skills

and abilities to solve them. This allows students to be more critical and creative in making decisions. Problem-solving ability refers to an individual's mental process in dealing with a problem to find a way to solve that problem through a systematic and careful thought process.

According to Permendikbud Number 58 of 2014, the purpose of mathematics learning is for students to have the following abilities: (1) understand mathematical concepts, (2) use patterns as conjectures in solving problems and be able to make generalizations based on existing

phenomena or data, (3) use reasoning on properties, manipulate mathematics both in simplification, and analyze existing components in problem solving in the context of mathematics and outside mathematics (real life, science, and technology), (4) communicating ideas, (5) having attitudes and behaviors in accordance with values in mathematics and learning, (6) performing motor activities that use mathematical knowledge, and (7) using simple teaching aids and technological results to carry out mathematical activities to improve the quality of education.

However, the purpose of mathematics subject of Permendikbud Number 58 of 2014, is still far from reality. Choridah (2013) said that until now there is no data or facts that can be used as evidence that the learning results in Indonesia have been successful. The average mathematics score of Indonesian students in TIMSS 2022 is lower than the results of TIMSS 2018. This decline shows that efforts to improve the quality of mathematics education in Indonesia have not achieved the expected results. This condition indicates the need for evaluation and improvement in the approach to mathematics learning in schools.

A similar condition also occurred in grade IV students of SD Negeri 01 Kwasen, Bukit Indah Cluster, Kesesi District, Pekalongan Regency. The results of observations show that students' ability in mathematics learning is still relatively low. This can be seen from the level of learning completeness which only reached 40% of the total 20 students. The low problem-solving ability is known based on the results of a mathematical test consisting of 10 multiple-choice questions with a working time of 2 hours of lessons (2×35 minutes). The test result data is then presented in the table of learning completeness of grade IV students on flat building material.

The KKM of the SDN 01 Kwasen Education Unit in the subject of Mathematics is with a score of 67, while the completeness of learning is with 75%. In grade IV students of SDN 01 Kwasen, there were 20 students with a KKM score of 8 students, while 12 students only got a score below the KKM of 12 students. So the flat building material has not reached completeness

From the above statement, the word has not been completed, showing low learning

outcomes, because the understanding of problem solving on the problems faced is still weak or lacking. This shows that students are not able to master the basic concepts of flat building materials as a whole, both in terms of recognizing shapes, calculating area and circumference, and applying this knowledge in real situations. Factors that may affect this low understanding include the use of less varied learning methods, lack of active student involvement in the learning process, and lack of use of media or concrete tools that can make it easier for students to understand abstract concepts.

Therefore, it is necessary to make improvement efforts through the application of more interactive and contextual learning models, such as the Discovery Learning learning model or project-based approaches, so that students can build understanding independently and improve problem-solving skills in mathematics.

The application of concrete object media in the Discovery Learning model is a strategy to concretize abstract concepts into more real and applicable in students' daily lives according to Pujia, F (2021). This media helps students to better understand mathematical concepts in a more visual and interactive way. By using concrete objects such as mathematical manipulatives or other physical objects, students can directly engage their senses in learning.

This allows students to explore mathematical ideas concretely, test hypotheses, and strengthen their understanding through practical experiences. This approach not only improves information retention but also facilitates the use of mathematical concepts in real-life contexts. Thus, students are prepared to face more complex problem-solving challenges in the future.

From the above statement with the media of concrete objects in direct learning involving their senses so that it stimulates to be motivated in learning so that it can improve students' mathematical problem-solving ability is clarified by Sulistiani, I. R (2016). Prilliza et al. (2020) found that the model using the konket media was able to achieve classical completeness by more than 75% and significantly improved the average ability of students to solve mathematical problems compared to conventional learning methods.

Nurhamida (2021) states that discovery is a mental process of thinking activities to find

and understand concepts and principles. The mental processes shown are observing, classifying, measuring, predicting, describing, and inferring. The application of the Discovery Learning learning model also improves students' ability to solve problems (problem solving), so it can be said that the discovery learning teaching and learning process involves their mental processes to observe, guess, explain, and conclude. The reasons for the application of the discovery learning model are a) intellectual potential, b) intrinsic motivation is better than extrinsic motivation, c) heuristic learning from discovery, and d) memory storage. Rusman (2014) stated that in discovery learning, students work collaboratively in small groups with heterogeneous group member abilities. Students will build their knowledge by exploring and collecting information.

Based on the literature, it can be concluded that the discovery learning model is a learning model that involves the full activity of students in learning that emphasizes the discovery of previously unknown principles or concepts, so that students can construct the concepts learned. Thus, the understanding gained by students will last for a long time in students' memories. The characteristics of discovery learning according to Hosnan (2014), namely 1) exploring and solving problems to create, combine, and generalize knowledge; 2) student-centered; 3) activities to combine new knowledge and existing knowledge.

Concrete Object Media are real or imitation objects in real (tangible) form, can be seen and touched so that they can be used as a learning resource to convey information through their own physical characteristics, such as their size, shape, weight, composition, color, function, and so on. According to Riyana (2024), concrete object media is a learning tool that provides a direct experience to users, because it can convey a more tangible meaning, this media is often used to introduce new concepts in learning.

By using concrete media, students can see, touch, or manipulate physical objects, which previously might only be described in the abstract or visually. This helps clarify students' understanding of the material being studied, as they can directly relate what is being taught to their sensory experiences, making learning more effective and meaningful. In Trimurtini et al (2018:519) it is explained that a tangram is a

puzzle consisting of seven or more geometric shapes, namely parallelograms, squares, rectangles, circles, triangles, and pentagonal or hexagonal prisms, here are examples of interesting concrete object media to teach the concept of flat planes to elementary school (SD) students.



Figure 1. Tangram



Figure 2. Flat Build Puzzle

Mariyana, F. (2022) said that concrete object media can be in the form of origami paper, origami paper can be shaped into the shape of a building according to the desired shape of the building. The use of origami paper media is intended to make it easier for students to understand the concept of building flat and space. Here's an example of origami paper.

Problem-solving ability is the process of an individual's ability to analyze or interpret a problem in order to find a solution to solve the problem. Irianti, et al. (2016). stating that a problem is a question that needs to be answered or responded to, but not all questions can be said to be problems. A question can be problematic only if it indicates a challenge that cannot be solved in a routine procedure that the perpetrator already knows. According to Ruhyana, (2016) a problem usually contains a situation that encourages a person to solve it but does not know directly what to do to work on it. If a problem is given to a child and the child immediately knows how to solve it correctly, then the problem cannot be said to be a problem.

From the above statement that a challenge becomes a problem if a question is not answered and answered, the problem will contain

a person's motivation to work on the problem and find a way to solve it. Ningsih, et al. (2018) stated that there is a problem, because the person is not satisfied with what has been or is happening, and he views it as something that needs to be prioritized. The problems we face can be said to be problems if the problem cannot be answered directly, because we have to select the information or data obtained and of course the answers obtained are not routine problem categories (not just moving/transforming from ordinary sentence forms to mathematical sentences).

Ginanjar (2019). stating that a person is considered to have or experience problems when facing the following four conditions, namely: (1) Clearly understanding the conditions or situations that are occurring. (2) Clearly understand the expected objectives. It has multiple goals to solve problems and can lead to a single solution goal. (3) Understand a set of resources that can be used to overcome situations that occur according to the desired objectives. This includes time, knowledge, skills, technology or specific items. (4) Have the ability to use a variety of resources to achieve goals.

According to Rofi'ah, et al, (2019) there are several types of mathematical problems, namely: (1) Translation problems are daily life problems that to solve them need a translation (transfer) from the verbal form to the mathematical form. (2) Application problems are to provide opportunities for students to solve problems with various mathematical skills and procedures. (3) Process problems are usually to formulate steps, formulate specific patterns and strategies in solving problems. This kind of problem provides opportunities for students so that problem-solving skills are formed in students so that they can help students become accustomed to selecting problems in various situations. (4) Puzzle problems are intended for recreation and fun as well as a useful tool to achieve effective goals in the teaching of mathematics. This also means that the problem of the situation can be solved by using problem solving

Polya in Rofi'ah, et al. (2019) detailed the four steps to solving mathematical problems (1) understanding problems, (2) making a problem-solving plan, (3) implementing a problem-solving plan, (4) looking (checking) again. Saleh (2020) stated the characteristics of problem-solving skills, namely: (1) Being able to

understand mathematical terms and concepts. (2) Able to know similarities, differences, and analogies. (3) Able to identify important parts and able to choose the right procedures and data. (4) Able to know irrelevant details.

Problem-solving skills are the ability of individuals to face and resolve a challenging situation or question that cannot be answered through routine procedures by analyzing conditions, identifying goals, selecting and utilizing relevant information and resources, and using appropriate thinking strategies to find solutions that were not previously known directly.

The Discovery Learning model is a learning approach in which students are actively involved in discovering their own concepts and principles through a process of exploration and investigation. When this model is assisted with the medium of concrete objects, the steps can be adapted to help students visualize abstract concepts and make learning more meaningful. Here are the steps in the Discovery Learning model aided by concrete object media (1) activating students' initial knowledge and motivating them to learn, (2) encouraging students to think critically and identify problems that need to be solved, (3) gathering information and data necessary to answer questions or solve problems, (4) analyzing the data that has been collected to find patterns or principles, (5) examine and verify the results of their inventions, (6) draw general conclusions from their findings and apply the concept to other situations.

Problem Formulation

Based on the background and identification of the problems that have been focused on, the researcher formulated the problems in this study, namely:

1. How to improve problem-solving skills in students who participate in learning with the discovery learning learning model assisted by concrete object media?
 2. Is the problem-solving ability of students who use the discovery learning model assisted by Concrete Material Media better than the conventional model in mathematics learning
- Research Objectives**

Based on the formulation of the problem poured, this study aims to:

1. To determine the improvement of problem-solving skills in students who participate in learning by comparing students' mathematical problem-solving abilities in flat building materials.
2. To analyze the comparison of mathematical problem-solving skills between students who use the Discovery Learning model assisted by concrete object media and students who learn conventionally.

Research Benefits

This research is expected to provide the following benefits:

Theoretical Benefits: Contributing data quality of Discovery Learning learning model assisted by Concrete Object Media to Mathematical Problem Solving Ability

Practical Benefits

For Students: gain experience in new learning with a media-assisted discovery learning model to improve mathematical problem-solving skills

For Teachers: get information about the importance of improving mathematical problem-solving skills for quality learning.

For Schools: to get input materials, to improve the quality of learning, then help teachers in dealing with educational problems, and be able to create better learners in schools or outside the school environment.

Research Methods

The research design used in this study is using a quantitative approach. The advantages of the quantitative approach are in the form of specific, clear and detailed nature. This is because the research uses numerical data that can be processed with statistics so that the quantitative approach will be clearer using numbers, starting from data collection and emphasized by Sugiono (2003:14) in this study using the experimental class research method, Haryadi, et al. (2022), said "Experiment is a way to find a causal relationship between factors that are deliberately caused by

the researcher by eliminating or reducing other disturbing factors".

One type of experimental design is pseudo-experimentation. In quasi experiments, independent variable and bound variable testers were performed on samples of the experimental group and control groups. The subjects studied in both groups were randomly drawn. The research uses a pre-test and post-test design.

Population is the entire subject or object that is targeted in a study. According to Sudjana (2005:6), population is the totality of all the values of measurement or calculation results, both quantitatively and qualitatively, which have certain characteristics of a group that are complete and clear and become the object of research study.

In this study, the population used was two elementary schools representing elementary schools that are members of the Bukit Indah Cluster, Kesesi District, Pekalongan Regency, namely SDN 01 Kwasen and SDN 02 Kwasen. The sample of this study consists of two classes, namely the experimental class and the control class. The experimental class was grade IV students of SD Negeri 01 Kwasen, while the control class was grade IV students of SD Negeri 02 Kwasen. The two schools each have six study groups (grades I to VI).

The data analysis method is the process of processing and analyzing data that has been obtained from research results so that it can be used to answer problem formulations and test research hypotheses. In quantitative research, data analysis is carried out using statistical techniques because the data obtained is in the form of numbers. The research data was obtained through a mathematical problem-solving ability test consisting of a pretest and a posttest. The results of the test were then processed to determine the level of students' ability before and after being given treatment in the form of the application of the Discovery Learning model assisted by concrete object media.

Data analysis in this study was carried out through several stages, namely a normality test to find out whether the data is normally distributed, a homogeneity test to find out the similarity of variance between the experimental class and the control class, and the N-Gain test to measure the improvement of students' mathematical problem-solving skills after participating in learning. Furthermore, hypothesis testing was carried out using the t-test (Independent Sample t-Test) to

find out if there was a significant difference between the mathematical problem-solving ability of students who learned using the Discovery Learning model assisted by concrete object media and students who learned using the conventional learning model. The results of the analysis are used as a basis for drawing conclusions about the effectiveness of the applied learning model.

Results and Discussion

The research objects in this study are grade IV students of SDN 01 Kwasen and Grade IV of SDN 02 Kwasen as the control of Kesesi sub-district, Pekalongan Regency, becoming the subject of research in the 2024/2025 Academic Year. The research was carried out in two classes selected as research samples, namely the experimental class of SDN 01 Kwasen and the control class of SDN 02 Kwasen, each with a total of 20 participants, the experimental class was a class that obtained learning using the Discovery Learning model assisted by the media of concrete objects, while the control class obtained learning using the conventional model usually applied by teachers. The selection of the two classes aims to find out the difference in students' mathematical problem-solving abilities after being given different treatments.

This research focuses on students' mathematical problem-solving abilities in the material taught during the research process. Before the implementation of learning, both classes were given an initial test (pretest) to find out the students' initial abilities. Furthermore, the experimental class was given learning with the Discovery Learning model assisted by concrete object media, while the control class was given conventional learning. After the entire learning series was completed, the two classes were given a final test (posttest) to find out the students' mathematical problem-solving skills after receiving treatment. Research data was obtained through tests, questionnaires, observations, and interviews which were then analyzed using statistical techniques

This study aims to determine the effect of the application of the Discovery Learning model assisted by concrete object media on students' mathematical problem-solving ability in flat building materials. The research was carried out in two classes, namely the experimental class that obtained learning using the Discovery Learning model assisted by concrete object media and the control class that obtained conventional learning.

Before learning is carried out, both classes are given a pretest to find out the initial ability of students. After the learning process is completed, students are given a posttest with the aim of finding out the improvement of mathematical problem-solving skills.

The results of the pretest showed that the initial abilities of students in the experimental class and the control class were relatively not much different. Most students still have difficulty understanding the information contained in the questions, determining the solution strategy, and drawing conclusions from the results obtained. This shows that students' mathematical problem-solving skills before being given treatment are still relatively low.

Based on these results, it can be concluded that the two classes have almost the same initial ability so that they are suitable as experimental groups and control groups. After the learning process is completed, both classes are given a posttest. The results of the posttest showed an increase in mathematical problem-solving skills in both classes. However, the improvement that occurred in the experimental class was higher than in the control class.

This improvement can be seen from the ability of students to understand problems, determine solution strategies, implement systematic solution steps, and re-examine the answers obtained. Most of the students in the experimental class were able to solve the problem according to the problem-solving indicators, according to Polya.

Based on statistical analysis in the experimental class, the results of the paired t-test showed a value of $t = -19.318$ with $df = 19$ and significance (2-tailed) = $0.000 (< 0.05)$. Since the significance value is less than 0.05, it can be concluded that there is a significant difference between the pretest and posttest values in the experimental class. The average score increased from 65.25 to 90.00, or an increase of 24.75 points.

The results of the paired t-test in the control class showed a value of $t = -3.327$ with $df = 19$ and significance (2-tailed) = $0.004 (< 0.05)$. Since the significance value was smaller than 0.05, it can be concluded that there was a significant difference between the pretest and posttest values in the control class, although the average increase was smaller, from 65.75 to 70.25 (an increase of 4.50 points).

Comparison of Experimental and Control Classes: The results of the Levene test showed a value of Sig. = 0.850 (> 0.05), so that the variances of the two groups can be considered homogeneous (equal variances assumed). On that line, the value of $t = 8.778$ with $df = 38$ and significance (2-tailed) = 0.000 (< 0.05). Thus, there was a significant posttest mean difference between the experimental class and the control class, with a mean difference of 19.75 points higher in the experimental class. Based on the results of the t-test above, the treatment given in the experimental class had a significant influence on the improvement of student learning outcomes compared to the control class.

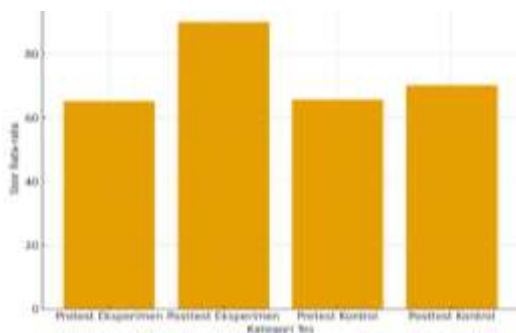


Figure 3. Comparison of KPMM Scores

The results of the study show that the application of the Discovery Learning model assisted by concrete object media is able to improve students' mathematical problem-solving skills. This can be seen from the increase in posttest results in the experimental class which is higher than the control class. In addition to increasing grades, students also show better ability to understand problems, determine solution strategies, carry out systematic calculations, and re-examine the results of their work.

This ability improvement occurs because during the learning process students not only receive explanations from teachers, but are given the opportunity to find concepts independently through the Discovery Learning stages, namely stimulation, problem statement, data collection, data processing, verification, and generalization. These stages make students more active in building their own knowledge so that the concepts learned become more meaningful.

At the stimulation stage, the teacher provides stimulation using concrete objects such as tangram, origami paper, or flat buildings that can be held and observed directly. These media

make students more interested in learning and help them understand the shape and nature of flat buildings. Furthermore, at the problem statement stage, students are invited to identify problems and determine the information that is known and asked so that they begin to get used to understanding the problem before looking for a solution.

The data collection and data processing stage provides opportunities for students to collect information through measuring, observing, calculating, and discussing activities with their peers. At this stage, students learn to choose the right strategy to solve the problem. After obtaining the results, students verify by checking the answers that have been obtained, then draw conclusions at the generalization stage. This process makes students better understand the relationship between mathematical concepts and daily life.

The results of this study support Jerome Bruner's theory that knowledge will be easier to understand if students find it themselves through the process of exploration. When students actively observe, try, discuss, and conclude the results of their observations, learning becomes more meaningful than if students only listen to the teacher's explanation.

In addition, the results of this study are also in accordance with Jean Piaget's theory which explains that elementary school students are at the concrete operational stage. At this stage, students will find it easier to understand abstract concepts if they are assisted by real objects that can be observed and manipulated. Therefore, the use of concrete object media in flat building materials helps students understand the concept of width and circumference more easily.

The results of this study are also supported by Vygotsky's theory which emphasizes the importance of social interaction in learning. During the learning process, students work together in groups, discuss, and exchange opinions. Teachers act as facilitators who provide guidance when students experience difficulties. These interactions help students develop thinking skills and solve problems more effectively.

The findings of this study are in line with the research of Anggraini (2023) who concluded that the Discovery Learning model is effective in improving mathematical problem-solving skills because it provides opportunities for students to discover concepts through the active learning process. This research is also supported by

Baramukti et al. (2024) who show that the use of concrete media in the Discovery Learning model is able to improve the quality of mathematics learning and make students more active during the learning process. Similarly, research by Yohana and Rini (2024) and Pratiwi et al. (2023) found that Discovery Learning-based learning provides better results than conventional learning in improving students' mathematical problem-solving skills.

Based on the results of the research, the theories used, and previous research, it can be understood that the success of the Discovery Learning model assisted by the media of concrete objects is influenced by several factors. First, students gain hands-on learning experience through the use of concrete media so that the concepts learned become easier to understand. Second, students are actively involved in every stage of learning so that critical thinking and problem-solving skills develop well. Third, learning takes place through discussions and group cooperation so that students can exchange ideas and find solutions to problems together.

The use of concrete object media in this study also contributes to improving students' mathematical problem-solving skills. According to Jean Piaget, elementary school students are at the concrete operational stage, which is the stage when students more easily understand concepts presented through real objects or direct experience. Concrete object media helps students visualize abstract mathematical concepts so that they are easier to understand. Through the manipulation of concrete objects, students can relate mathematical concepts to real-life situations they encounter in everyday life. This condition makes it easier for students to understand problems, plan solution strategies, carry out calculations, and re-examine the results obtained.

When associated with indicators of problem-solving ability according to Pólya, the Discovery Learning model assisted by the media of concrete objects provides students with the opportunity to carry out all stages of problem solving systematically, namely understanding the problem, developing a solution plan, implementing a plan, and re-examining the

answer. During the learning process, students are trained to find relevant information, develop completion strategies, and evaluate the results of their work. These activities directly support the development of students' mathematical problem-solving skills. Practically, the results of this study provide recommendations for teachers to integrate concrete object media in the Discovery Learning model as an effective learning strategy to improve problem-solving skills. Theoretically, these findings support the effectiveness of the constructivist approach in mathematics learning, especially in flat building materials.

Conclusion

Based on the results of the research and discussions that have been conducted, it can be concluded that the application of the *Discovery Learning* model assisted by concrete object media can improve students' mathematical problem-solving skills. This is shown by the increase in students' average scores from pretest results to posttest which is strengthened by the results of N-Gain analysis. The mathematical problem-solving ability of students who participated in learning using the Discovery Learning model assisted by concrete object media was better than that of students who participated in learning using the conventional model. This is proven through the results of hypothesis tests using the Independent Sample t-test which shows a significant difference between the experimental class and the control class. The use of the *Discovery Learning* model assisted by concrete object media provides opportunities for students to be actively involved in the learning process, thereby helping students understand mathematical concepts more meaningfully and improve their mathematical problem-solving skills.

Students are expected to participate more actively in learning activities and discussions, and to be confident in expressing their opinions, thereby allowing their mathematical thinking and problem-solving skills to develop optimally. Schools are expected to support the use of innovative learning models and provide adequate learning media to enhance the quality of the mathematics learning process.

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Curriculum Vitae

Umiyati is an educator who currently carries out the mandate as the Principal of SD Negeri 01 Kwasen, Kesesi District, Pekalongan

Regency. Armed with long experience in the world of primary education, he has a strong commitment to providing meaningful, innovative, and student-centered learning. As an alumnus of Teacher Driving Education, I believe that teachers not only play the role of teachers, but also as learning leaders who are able to inspire positive change in the school environment. His academic attention and interest focused on learning mathematics in elementary school, especially in developing problem-solving skills through the use of concrete objects. According to him, real and contextual learning experiences will help students understand mathematical concepts more deeply while fostering critical and creative thinking skills.

Commitment to improving the quality of education continues to be realized through the development of academic competence. Currently, Umiyati is pursuing a master's degree in the Basic Education Study Program at the Open University as a form of effort to broaden her horizons and strengthen her contribution to the development of learning in elementary schools. Through the works she writes, Umiyati hopes to share ideas, experiences, and good practices that can inspire teachers, prospective teachers, education observers, and all parties who have concerns about improving the quality of basic education in Indonesia.