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COMPARISON OF EQUAL VALUE IN THE APPLICATION OF LEARNING EXAMPLES AND NON-EXAMPLES IN GRADE SEVEN

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Abstrak

Salah satu topik dalam matematika ialah perbandingan senilai yang melibatkan dua atau lebih variabel, materi ini sering digunakan dalam kehidupan sehari-hari walau begitu masih banyak peserta didik belum memahami materi ini dengan itu dilakukannya tindakan. Penelitian ini adalah penelitian tindakan kelas yang mengimplementasikan model pembelajaran *examples non examples* yang dilakukan untuk mengetahui apakah dapat memperbaiki hasil belajar peserta didik pada materi perbandingan senilai. Penelitian ini dilakukan dalam II siklus, siklus awal belum mencapai kriteria ketuntasan penelitian yaitu 75% hanya mencapai persentase ketuntasan 57,14% dan pada siklus kedua terjadi peningkatan persentase ketuntasan mencapai 78,56%. Jadi kesimpulannya penerapan penelitian tindakan kelas dengan model pembelajaran *examples non examples* dapat memperbaiki hasil belajar peserta didik di kelas VII MTs Thaawalib Sriwijaya Palembang.

Kata kunci: hasil belajar, penelitian tindakan kelas, perbandingan senilai, *examples non examples*

Abstract

One of the topics in mathematics is valued comparisons involving two or more variables, this material is often used in everyday life even so there are still many students who do not understand this material so that action is taken. This research is a class action research that implements the examples non examples learning outcomes of students on comparable value material. This research was conducted in II cycles, the initial cycle did not reach the research completeness criteria, namely 75% only reached a percentage of completenesss of 57,14% and in the second cycle there was an increase in the percentage of completeness reaching 78,56%. So in conclusion, the application of class action research with examples non examples learning model can improve the learning outcomes of students in class VII MTs Thawalib Sriwijaya Palembang.

Keywords: *learning outcomes, classroom action research, value comparison, examples non examples*

INTRODUCTION

Education is very important because it determines the strength of a nation's resources and the nation itself (Meilani & Abdullah, 2021). In Indonesia, mathematics is one of the subjects taught. Mathematics plays a crucial role and is included in the mandatory curriculum for students at the elementary and secondary levels, with the highest proportion compared to other subjects. However, mathematics is an abstract learning that uses symbols not found in the real world. Due to its abstract nature, many students experience difficulties in the learning process (Sohilait, 2021).

This factor causes students to struggle in understanding concepts within a subject, resulting in suboptimal learning outcomes. According to observations conducted by researchers at MTs Thawalib Siwijaya Palembang in Grade VII, students find it difficult to grasp the concepts presented by teachers, especially those related to equivalent comparison materials.

This difficulty leads to many students achieving learning outcomes below the Minimum Completeness Criteria (KKTP) rather than above it, which is set at 75. Over

the past three years, the average learning outcomes for students who scored above the Minimum Completeness Criteria (KKM) in equivalent comparison materials were only 54.16% in the academic year 2020/2021, 65.21% in the academic year 2021/2022, and 60% in the academic year 2022/2023.

To address the learning outcomes of students, the researcher applied the Example Non-Example learning model, also known as examples non examples. In this model displays examples and non-examples with the following stage, (1) the researcher/facilitator prepares relevant images according to the material discussed, (2) the researcher/facilitator displays the image with LCD, (3) students make observations and are encouraged by the researcher/facilitator, (4) though group discussions student are given the opportunity to convey the results of the discussion, (5) from the results of the students' discussion, the researcher/facilitator begins to explain the material in accordence with the learning objectives to be achieved, (6) the researcher/fasilitator and students conclude the material together. This model is a cooperative learning approach where students work in groups or cooperatively to achieve goals (Hasanah & Himami, 2021).

This learning model teaches students to analyze concepts more deeply by learning through the process of searching and discovering examples and non-examples (Najib et al., 2019). Examples provide descriptions of instances that exemplify a concept, while non-examples provide descriptions that do not exemplify the concept. This allows students to analyze both examples and non-examples to discover and conclude the underlying concepts (Mendrofa, 2021).

The examples non examples learning model utilizes case studies through appropriate visual examples (Rohanah, 2022). It employs images as teaching media to help develop thinking patterns and stimulate imagination in analyzing the examples and non-examples provided by the facilitator (Alexander & Pono, 2019). This approach aligns with Wahyuni et al. (2022), who assert that this model uses visual media to present material, encouraging critical thinking and problem-solving based on the examples depicted in images.

Using this model, teachers as facilitators provide students with opportunities to collaborate in analyzing and discussing examples and non-examples of images before presenting the discussion outcomes. The function of using visual media as a reference is for students to analyze what is depicted within the images (Kurniati et al., 2019). The examples non-examples learning model is designed to use images that evoke curiosity among students and encourage them to think critically in problem-solving (Ilahi et al., 2022).

The examples non-examples learning model is a cooperative learning model where images serve as instructional media designed by facilitators. Examples are used as references to illustrate what is an example, while non-examples are used to illustrate what is not an example, within the given concept.

Examples non examples is done on the comparison of worth by providing an overview between examples and not examples of existing concepts, the images in this model can arouse the curiosity of students and shape the mindset of students. This learning model emphasizes them to think more critically in analyzing which images meet the concept of worth comparison and solving problems contained in the examples of images. With this model, it is expected that students of class VII MTs Thawalib Sriwijaya Palembang can easily understand a concept of worth comparison and improve learning outcomes on worth comparison material.

METHOD

The researcher's action constitutes a Class Action Research implemented at MTs Thawalib Sriwijaya Palembang in the second semester of the academic year 2023/2024. By implementing the examples non examples learning model, the subjects of this action are seventh-grade students consisting of 11 boys and 3 girls. The object of this action is the learning outcomes of students in the topic of equivalent comparisons. This study involves actions implemented within the classroom, focusing

on improving the quality of the learning process experienced by the teacher.

Class Action Research, also known as classroom action research, is research whose actions can be felt, seen, and raise questions about whether the actions taken have high effectiveness (Suradi & Aliyyah, 2023). Class Action Research is an activity that identifies and solves its problems (Azizah & Fatamorgana, 2021). This class action research is a reflective study conducted by teachers to enhance stability or improve learning conditions (Mamo, 2022). According to Afif & Mawardi (2022), classroom action research is a design to discover and solve a problem in the classroom learning process. Kurt Lewin's classroom action is conducted in several cycles, each with steps to achieve research goals, including (1) planning, (2) implementation, (3) observation, and (4) reflection (Peraga et al., 2023).

This research was conducted in two cycles with the following stages of action; (1) planning, the researcher prepares teaching materials that will be used from the teaching modele as an action guide, PowerPoint (PPt) images of examples and not examples in worth comparison, student worksheets (LKPD), observation sheets and answer sheet, (2) implementation, this stage occurs when the action takes place. This stage has three actions which include, 1) introduction, researchers together with students open learning and divide groups of 4-5 people, 2) core activities, researchers display PPt and provide LKPD then students are asked to observe which is assisted by researchers in finding concepts in the image and then presenting the findings of each group and data collection with students solving problems given by researchers, 3) observation, this observation is carried out by filling out an observation sheet by two people, namely observer one is carried out by the class teacher and observer two is carried out by a fellow researcher who aims to observe the actions of researchers and students during the learning process, (4) reflection, this stage is carried out as an evaluation to see the shortcoming and advantages of the actions taken for the next cycle

The method used to collect data includes observation, tests, and documents, while the analysis method used is qualitative. This data analysis is conducted to assess the learning outcomes of students based on test scores obtained in percentage form. The cycle stops when students' test scores reach 75%.

$$P = \frac{F}{N}100\%$$

Description:
P = percentage
F = number of students who reached ≥ 75
N = number of students

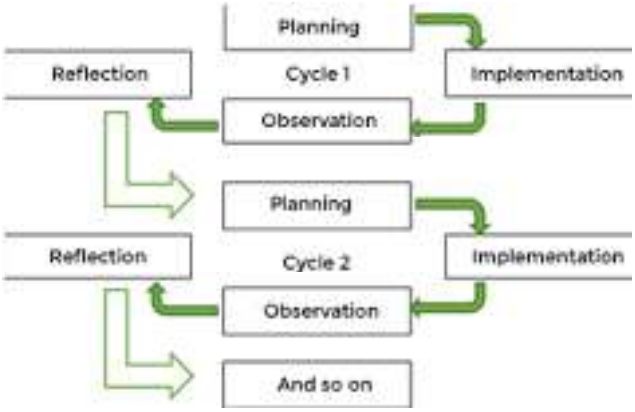

Figure 1. Kurt Lewin classroom action research model

RESULTS AND DISCUSSION

This action was carried out using the examples non-examples learning model implemented in Cycle II.

Cycle 1

Implementation of learning in Cycle I was conducted according to the steps outlined in the classroom action research, namely:

Planning

In this step, the researcher prepared teaching modules (guidelines for taking action), observation sheets for both the researcher and students, student worksheets (LKPD) which will be used by students in exploring the material, PowerPoint presentation to make it easier for students to see examples of images clearly through the LCD, test questions to see the success of the action and answer sheets in cycle I

Implementation

Implementation of cycle I was conducted in two sessions. The initial session took place on Friday, March 29, 2024, during class hours (09:40-11:00), and the second session was held on Saturday, March 30, 2024, during class hours (11:40-12:00). The implementation process followed the instructional module design utilizing the examples non-examples learning model on the topic of comparative value as prepared by the researcher. At the end of the second session, students were given a test to assess their level of understanding. The results of the test conducted by the students in cycle I are shown in the table below.

Table 1. Students' final test results

Number of Learners	Number of Learners who Completed	KKTP	Percentage of Completion
14	8	75	57,14%

Based on Table 1, the results show that the students' scores have not reached their maximum potential. The data above indicates that the percentage of students who achieved mastery is only 57.14%. Out of a total of 14 students, 8 obtained scores ≥ 75.

Observation

Observations will be carried out by marking the observation sheet according to the actions taken by researcher and students during the learning process in the classroom to see the achievement of comparative learning worth with examples non examples learning model done by observers I and II. For the results of observations at the first cycle stage can be seen in the table below.

Table 2. Observation results of researcher activities

Observer	Initial Activity	Core Activity	Closing Activity	Total Score	Average	Category
I	16	30	10	56	3,7	Pretty Good
II	17	32	12	61	4	Good

Table 3. Results of observation of researcher activities

Observer	Initial Activity	Core Activity	Closing Activity	Total Score	Average	Category
I	16	28	11	55	3,7	Pretty Good
II	16	27	11	54	3,6	Pretty Good

Reflection

In the reflection stage, researchers saw the results of research with the examples non examples learning model in class VII MTs Thawalib Sriwijaya Palembang which was carried out by looking at the observations of observers I and II and the learning outcomes of students through test questions that had been done. From these results, researchers saw that the learning process was not carried out optimally in accordance with the sequence of teaching modules that had been prepared. Researchers have not been able to convey the material well according to the learning objectives to be achieved so that the results of the student test scores show that only 57.14% have not been able to reach the researcher's completeness of 75% then the results of observations of researchers and students also did not go well only reaching 3.7 in the good enough category. Based on the results of cycle I research with the examples non examples learning model, it has not met the completeness of the research, so the next action is cycle II.

Planning

Based on the results of the first cycle of action, the researcher decided to continue in cycle II, in this second cycle the researcher will emphasize more on explaining the material in accordance with the learning objectives to be achieved and improve the time allocation (introductory activities, core activities, and closing activities) so that the research can achieve the researcher's target. Similar to cycle I in cycle II researchers prepare teaching tools that have been improved from teaching modules, LKPD, PPT, observation sheets, test questions and student answer sheets.

Implementation

Cycle II was carried out with two meetings, the initial meeting on Friday April 05, 2024, lesson hours (10.40-11.00) and the second meeting on Saturday April 06, 2024, lesson hours (11.40-12.00). learning is carried out in accordance with the design of the teaching module that has been prepared, at the initial meeting the researcher focuses more on the situation of the learning situation so that all teaching module sequences run optimally and convey learning objectives well and at the end of the second meeting learning is given questions to see the level of understanding of students. The results of student test scores can be seen in the table below. Based on the data in Table 4, it can be seen that this study obtained a completeness rate of 78.57%, with 11 out of 14 students achieving a score of ≥75.

Table 4. Results of students' test scores cycle II

Number of Learners	Number of Learners who Completed	KKTP	Percentage of Completion
14	11	75	78,57%

Observation

Observations will be conducted during the classroom learning process. They aim to assess the achievement of learning through the comparison of values with the examples and non-examples model conducted by Observers I and II towards researchers and participants. The observation results can be seen in the table below.

Table 5. Results of observation of researcher activities

Observer	Initial Activity	Core Activity	Closing Activity	Total Score	Average	Category
I	20	39	15	74	4,9	Good
II	20	40	15	75	5	Very Good

Table 6. Observation results of researcher activities

Observer	Initial Activity	Core Activity	Closing Activity	Total Score	Average	Category
I	19	39	15	73	4,8	Good
II	20	39	15	74	4,9	Good

Reflection

The results of the research in Cycle II using the examples non-examples learning model in class II of Mts Thawalib Sriwijaya Palembang have been successfully implemented. The students' test scores reached the research completeness criteria, which was 75%. Additionally, the observations conducted by observer I and II aimed at both the researcher and the students went well, achieving good and very good categories. Based on the results of Cycle II research meeting the research completeness criteria, the research concludes at Cycle II. In the implementation of the action at MTs Thawalib Sriwijaya Palembang which was carried out with II cycles, each cycle with two meetings, the first cycle of student learning outcomes could not complete the success indicators only reached 57.14% while the second cycle reached 78.6% above the learning success indicators. From this comparison, it can be seen that this research can improve the results of students' scores on comparative material worth over the past three years by applying the examples non examples learning model. Similarly, it is said that Wati (2023) that the application of the examples non example learning model can improve the learning outcomes of students and is completed within II cycles with completeness reaching 93%.

CONCLUSIONS

This research successfully improved the learning outcomes of 7th-grade students at MTs Thawalib Sriwijaya Palembang by implementing a classroom action research using the examples non examples learning model through two cycles. In the first cycle, the desired criteria were not yet achieved, with only 57.14% attainment. However, in the second cycle, there was an improvement of 21.43%, reaching a satisfactory percentage of 78.57% in learning outcomes. The results of the second cycle action indicate that the research's proficiency indicator of 75% has been achieved. Therefore, it can be concluded that the classroom action research using the examples non examples learning model can enhance learning outcomes in the topic of equivalence.

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