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Team Assisted Individualization: Improving Number Competency Students' Understanding of Mathematical Concepts

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ABSTRACT

Purpose of the study: This research aims to improve students' understanding of mathematical concepts in number competency by using the Team Assisted Individualization (TAI) Learning Model in class IV B elementary school No. 64/1 Muara Bulian.

Methodology: This research is a study that consists of 2 cycles. This type of research uses a mixed method, namely a combination of quantitative and qualitative research. The research subjects were students of class IV B at elementary school 64/1 Muara Bulian. The data obtained are quantitative data and qualitative data. Data collection techniques were obtained through observation and interviews. Then the data were analyzed based on the type of data obtained.

Main Findings: The study's findings showed that students' understanding of concepts increased from 60.35% in cycle I to 84.86% in cycle II. So that the use of the Team Assisted Individualization (TAI) learning model can help improve students' conceptual understanding of number competence in class IV B elementary school NO. 64/1 Muara Bulian.

Novelty/Originality of this study: The update in this research is contained in the results of this research, where the studies in this article are the latest results in the field of science, especially mathematics education. With this research, readers and other researchers can determine the impact of using the Team Assisted Individualization (TAI) learning model on students' understanding of mathematical concepts in elementary schools, especially in number competency material.

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1. INTRODUCTION

Mathematics is an important subject in the field of education [1]. Mathematics is part of science that must be learned by students since entering school. The purpose of learning mathematics in education is so that students can understand mathematical concepts and communicate ideas with symbols, tables, diagrams, or other media [2]. In general, the goals of mathematics education at the primary, secondary, and higher education levels place more emphasis on reasoning, forming attitudes, mastery of teaching materials, and skills in applying mathematics in solving problems in other disciplines and those encountered in everyday life [3]. Based on Permendiknas No. 22 of 2006, "the purpose of learning mathematics in schools is so that students have the

ability to understand mathematical concepts, explain the interrelationships between concepts and apply concepts in a flexible, accurate, efficient, and precise way in solving problems".

Conceptual understanding is a very important process of thinking and understanding students and is included in the educational curriculum [4]-[8]. Understanding of students' scientific concepts and reasoning is influenced by the broad experience of students and the scientific knowledge that students have before learning at school. To form the ability to understand concepts, a teacher must prepare lessons that can help improve the ability to understand concepts, especially in learning mathematics. Concepts in mathematics have a relationship between one concept and another [9]. The interrelationships between one material concept and another are evidence of the importance of understanding mathematical concepts in understanding an object or event [10], [11]. Understanding of concepts possessed by students can be influenced by various factors, such as learning strategies which can be in the form of learning models, learning media, and others.

Based on the results of the preliminary study that the researchers had done in class IV B in the form of observations, the researchers found several problems, including the ability to restate an arithmetic concept. When learning occurs, the teacher only gives examples on the blackboard, and then students are told to pay attention and do the textbook exercises. Students quickly forget about learning because learning is not meaningful; namely, students only memorize concepts and do not understand, and students cannot re-express what has been stated by the teacher.

With the ability to classify objects based on mathematical concepts, students cannot group or explain part or all of the lesson material using their own language or way. Because students do not focus on participating in learning activities and are engrossed in talking to themselves behind, some students do not listen to the teacher explain in front. When the teacher explains and asks the result "45.7" to be rounded to the nearest tens to one of the students, the student looks confused and doesn't answer the teacher's question. Students do not ask the teacher if a lesson is not understood, so when the teacher gives practice questions, many students have difficulty working on it. When the students worked on the problem, the teacher asked one of the students again about the result "45.7" rounded to the nearest tens, but the students could not answer.

With the ability to present concepts in various forms of mathematical representation, students cannot explain the whole concept mathematically or answer questions at all. The ability to give examples or contra examples of the concepts being studied means that students cannot distinguish which examples are true and which are wrong. Based on the problems described by the 20 students in the class, it was found that almost 74% of students did not understand the mathematical concept of number competence, and 26% understood the mathematical concept of number competence in a classical manner, categorized as lacking.

Furthermore, the researcher interviewed the homeroom teacher of class IV B SDN. From the description of the class IV B teacher, in the process of learning mathematics, the students in that class still struggled to understand the mathematical concepts being taught, and there were still many students who could not answer the questions given correctly. Then the researcher conducted interviews with students in class IV B. The researcher obtained data that the students in the class were bored with the learning process, and the teacher only used the lecture method. Students' understanding of the concepts being studied lacks depth because the teacher only focuses on the lecture method without asking students to express their ideas about the concepts being studied. So that it does not provide opportunities for students to find their own concepts to develop thinking skills in solving a mathematical problem.

Based on the problems above, the action that can be used to deal with the problem of students' lack of understanding of mathematical concepts is the cooperative learning model of the Team Assisted Individualization (TAI) type. This type of TAI cooperative learning model combines cooperative learning with individual learning [12]. This Team Assisted Individualization model provides opportunities for students to learn independently in solving problems [13]. Team Assisted Individualization learning aims to overcome difficulties in understanding and solving learning material problems, and the group leader (assistant) has more knowledge. Students with higher abilities can help friends with learning difficulties [14]. The learning process begins with an individual study of the learning material prepared by the previous teacher, then students are given practice questions and work on them independently/individually. Furthermore, individual learning outcomes are brought to groups that have been formed to be discussed and mutually discussed by group members, and all group members are responsible for the overall answer as a shared responsibility.

Using learning models in the process of teaching and learning activities effectively increases students' understanding of concepts. This aligns with research conducted by Fitrah [15] that using problem-based learning models can improve students' understanding of mathematical concepts in quadrilateral material in junior high school. This is in line with the research conducted by Rubianti [16], which stated that the application of the problem-based learning model was effective in increasing elementary school student's understanding of mathematical concepts in grade V. Furthermore, research by Komarudin [17] stated that the project-based learning model had a positive impact on improving elementary students' understanding of mathematical concepts. In addition, Isa [18] research states that the Team Assisted Individualization type cooperative learning model can improve students' conceptual understanding and critical thinking on hydrocarbon material. Based on

some of the research above, it can be concluded that the right learning model can improve students' understanding of concepts. However, no relevant research examines the impact of using the Team Assisted Individualization model on students' conceptual understanding in elementary schools.

Based on the description above, this study aims to complement previous research and improve students' understanding of mathematical concepts in number competence at SDN 64/I Muara Bulian by using the Team Assisted Individualization (TAI) learning model.

2. RESEARCH METHOD

This research is mixed research with quantitative and qualitative data types. mixed methods combine qualitative and quantitative research [19]–[21]. The data is data on applying the Team Assisted Individualization (TAI) learning model in the form of qualitative data. Reports on student learning outcomes, specifically on the cognitive aspects of students' concept understanding abilities are processed with quantitative data, and test results are carried out at the end of each learning cycle.

The data sources of this research are the subject and primary data sources. In this study, students were the main subject (grade IV SD), and primary data were obtained directly from teachers and students in the learning process in class IV B SD Negeri 64/1 Muara Bulian. The data collection technique used in this study was observation [22]–[24]. Observation is a data collection technique by directly observing research objects to observe the activities. The observations were observing the implementation of the learning process and students' understanding of mathematical concepts. An interview is a dialogue between 2 people to get some information. Interview techniques in this study were conducted between researchers and students to tell problems during learning activities and obtain data regarding student problems in learning using the Team Assisted Individualization (TAI) learning model. Interviews are used to strengthen and validate the observational data.

Data analysis was performed during and after data collection. Data was collected and analyzed by giving a score on student observation sheets in understanding concepts in learning mathematics, as well as analyzing teacher activities by describing the steps for implementing the Team Assisted Individualization (TAI) learning model to increase understanding of concepts in mathematics learning for students in grade IV schools Base. The teacher's activity sheet uses choices in the form of a scale processed by describing whether or not the implementation of Team Assisted Individualization (TAI) learning model is implemented. According to the method of collection, the data taken by the researcher is primary data because the learning outcomes are collected and tested by the researcher himself.

Data is divided into two, namely qualitative data and quantitative data. Because the data being analyzed are several numbers obtained through tests, the method of data analysis that researchers use is scoring. The score is the number given to the student's answer, which gives instructions regarding acquiring the student's learning outcomes. Because the test is an essay test, the qualitative nature becomes quantitative.

Percentage of student activity observation sheets and student learning outcomes individually with the percentage formula.

$$\text{Score} = \frac{Total\ Score}{Maximum\ total\ score} \times 100\%$$

Calculating the criteria for class completeness and the percentage of success in understanding students' concepts with the percentage formula.

$$\text{Percentage} = \frac{\Sigma students\ succeed}{\Sigma students\ in\ class} \times 100\%$$

Comparing students' test results with the minimum completeness criteria. Has it been achieved or not achieved or not exceeded for children whose scores are far above the minimum completeness criteria.

Table 1. Students' Concept Understanding Predicate

Mastery Level	Categpry
86 – 100	Very good
76 – 85	Good
60 – 75	Enough
55 – 59	Less
≤ 54	Very Less

3. RESULTS AND DISCUSSION

3.1. Results

Pre-action Description

Based on observations, preliminary findings in class IVB elementary school No. 64/I Muara Bulian show that students' understanding of mathematical concepts is still low, especially in number competence. 64/I Muara Bulian 26.5% at less than once.

Research has been carried out on learning mathematics on rounding material in basic competence 3.7 explaining and rounding and measuring length to the nearest unit and 4.7 solving the problem of rounding the results of measuring length and weight to the nearest unit. Researchers carry out the stages of planning, implementation of action, observation, and reflection. The results of the research were taken from the results of observations of teacher activities which were analyzed qualitatively, as well as the results of observations of teacher activities which were analyzed qualitatively, as well as the results of observations of student activities and the results of testing understanding of mathematical concepts were analyzed quantitatively and qualitatively.

Description of Action Results for Each Cycle

The results of the first cycle of meetings I

Cycle I meeting 1 with basic competence 3.7 explaining, rounding, and measuring length to the nearest unit. Learning indicators are explaining and rounding the results of measuring length and weight to the nearest unit, tens, or hundreds. The learning process for meeting 1 was carried out for 2 hours of learning (2 x 35 minutes). Cycle I of meeting 1 uses four stages: planning, action implementation, observation, and reflection. The results of this reflection are used as a basis for determining corrective actions in the next cycle.

Observation of cycle I meeting I

a. Teacher activity

Based on the results of observations, of the 18 aspects observed, 16 aspects were carried out. The researcher saw that the teacher had carried out the learning process according to the steps, and the activities that were not carried out, namely the teacher did not provide apperception to students' preparation in participating in learning, did not explain learning objectives, did not motivate students to be actively involved in learning group, the activity of giving responses from other groups to the presenter's group was not carried out, the teacher did not ask students to give appreciation to the group that got the highest score. and does not ask students to construct activities during the learning process.

b. Student Activity

Based on the observations from the 18 students in cycle I meeting 1, the results were what percentage of the ability to understand mathematical concepts in participating in the learning process. Based on the data above, the researcher can conclude that there are 11 students who are classified as very poor (KS) and have not been able to carry out any indicators of understanding the concept. Then 3 students are in the poor predicate (K), 3 students are in the sufficient predicate (C), 1 student is in the good predicate (B), and none are in the very good predicate (SB). For each indicator observed, the student rating scale has different levels and is not the same. The results of observations on the ability indicator restate a concept on the descriptor of students being able to write down the rounding concept correctly. There are still 3 students who have not been able to write down the concept of rounding. This problem is due to the lack of understanding of students in writing and mentioning what is known from the questions. This is because students immediately answer without writing down the concept and write it down correctly. So the teacher does not know where the rounding results come from.

Observations on the indicators classify objects based on the concepts on the descriptors. Students can classify rounding concepts using their own language quickly and precisely. There are still 7 students who have not been able to classify the rounding concept using their own language. Students have not been able to group or explain part or all of the lesson material using their own language or method.

The results of observations on indicators provide examples or contra examples of the concepts studied on student descriptors that can answer correctly regarding the statement of the rounding concept. There are still 10 students who have not been able to answer correctly regarding the statement of the rounding concept. This is because some students do not understand the concept of rounding. The results of observations on indicators present concepts in various representations on descriptors, namely, descriptors of students can make questions/conclusions about understanding the concept of rounding. In cycle I meeting 1, no students could make conclusions. Many students were silent and did not dare to raise their hands to make conclusions. In the first cycle of meeting 1, students have not been able to make questions/conclusions regarding correctly understanding the concept of rounding.

The results of the first cycle of meeting 2

Cycle I meeting 2 with basic competence (KD) 3.7 explaining, rounding, and measuring length to the nearest unit. Learning indicators are explaining and rounding the results of measuring length and weight to the nearest unit, tens, or hundreds. The learning process is carried out for 2 hours (2x35 minutes). Cycle I Meeting 2 uses four stages: planning, action, observation, and reflection. The results of this reflection are used as a basis for determining corrective actions in the next cycle.

Observation of cycle I meeting 2

a. Teacher activity

Based on the results of observations, of the 18 aspects observed, 17 aspects were carried out. The researcher saw that the teacher had carried out the learning process according to the steps of the Team Assisted Individualization (TAI) learning model, and activities that were not carried out; namely, the teacher still did not provide apperceptions to prepare students to participate in learning, and the teacher did not encourage participants students to collect information from ongoing group activities. The results of this observation indicate that the teacher has carried out according to the Team Assisted Individualization (TAI) learning model.

b. Student Activity

Based on the observations from the 18 students in cycle I meeting 2, the results were what percentage of the ability to understand mathematical concepts in participating in the learning process. Based on the data above, the researcher can conclude that there is 1 student who belongs to the predicate at very good predicate (SB), namely ASF. Then, 4 students are in the good predicate (B), 10 students are in enough predicate (C), 3 students are in the Poor predicate (K), and there are no students who are classified as a very poor predicate (KS). For each indicator observed, the student rating scale has different levels and is not the same.

The results of observations on the ability indicator restate a concept on the descriptor of students being able to write down the rounding concept correctly. In cycle I meeting 2, students experienced an increase in writing the concept of calculating rounding correctly.

Observations on the indicators classify objects based on the concepts on the descriptors. Students can classify rounding concepts using their own language quickly and precisely. Students have experienced increased grouping rounding concepts using their own language quickly, even though they are still not right. The results of observations on indicators provide examples or contra examples of the concepts studied on student descriptors that can answer correctly regarding the statement of the rounding concept. There is still 1 student who has not been able to answer correctly about the concept statement. The results of observations on indicators present concepts in various representations on descriptors, namely, descriptors of students can make questions/conclusions about understanding the concept of rounding. In cycle I meeting 2, 8 students could not make questions/conclusions regarding understanding the concept of rounding. In cycle I meeting 2, students answered questions that were still unclear and shy, and many of their voices were unclear.

The explanation above can be seen in the attachment, which contains observation data for meeting 2, where the average percentage of observations is 4 indicators that explain each observed point. From this point, the descriptor has the highest percentage, namely the descriptor: Students can restate a concept on the descriptor students can write the rounding concept correctly. On the descriptor, there are 9 students who can write the rounding concept correctly. While the descriptors have the lowest percentage, namely on 3 descriptors: on descriptors, students can group rounding concepts using their own language quickly and precisely, students can answer correctly about the statement of the rounding concept, and students can make questions/conclusions regarding understanding rounding concepts.

Results of Testing Understanding of Mathematical Concepts Cycle I

The results of testing the understanding of mathematical concepts of 18 students who were present in cycle I, then what percentage of the results of testing students' understanding of mathematical concepts was obtained. Information on the data, the researcher can conclude that there are 2 students who belong to the poor predicate (K), 10 students are in the adequate predicate (C), and 1 student is in the good predicate (B). Then, 5 students are in the very good predicate (SB), and none are in the very poor predicate (KS).

Based on the results of testing students' conceptual understanding in cycle I, the percentage of results testing classical mathematical concept understanding in cycle I was 73% with an adequate predicate (C) and still needs to be improved again in the next cycle. The results of testing students' understanding of mathematical concepts in cycle I proved they had not reached the expected completeness criteria because the classical percentage was 73% with enough predicate (C).

Results of Cycle II Actions

Results of Action Cycle II Meeting 1

Cycle II meeting 1 with basic competence (KD) 4.7 solves the problem of rounding the results of length and weight measurements to the nearest unit. The learning indicator solves the problem of rounding the results of measuring the length and weight of the nearest unit. The learning process for each meeting is carried out for 2 hours of learning (2 x 35 minutes). This cycle uses four stages: planning, action implementation, observation, and reflection. The results of this reflection are used as a basis for determining corrective actions in the next cycle.

Observation of Cycle II Meeting 1

a. Teacher activity

Based on the results of observations, the 18 aspects observed have been carried out well. The researcher saw that the teacher had carried out the learning process accordingly. The results of this observation indicate that the teacher has carried out according to the steps of the Team Assisted Individualization (TAI) learning model.

b. Student Activity

Based on the observations from the 18 students who attended cycle II meeting 1, the results were the percentage of the ability to understand mathematical concepts in participating in the learning process. Data description, the researcher can conclude that no students are at very poor (KS) and less (K) predicates. Then, 4 students belonged to the very good predicate (KS), 8 students belonged to the good predicate (B), and 6 students belonged to the sufficient predicate (C). For each indicator observed, the student rating scale has different levels.

The results of observations on the ability indicator restate a concept on the descriptor of students being able to write down the rounding concept correctly. In cycle II meeting 1, students experienced an increase in writing the concept of calculating rounding correctly. Observations on the indicators classify objects based on the concepts on the descriptors. Students can classify rounding concepts using their own language quickly and precisely. In cycle II meeting 1, students experienced increased descriptors grouping rounding concepts using their own language.

The results of observations on indicators provide examples or contra examples of the concepts studied on student descriptors that can answer correctly regarding the statement of the rounding concept. In cycle II meeting 1, students were able to answer questions correctly. The results of observations on indicators present concepts in various representations on descriptors, namely, descriptors of students can make questions/conclusions about understanding the concept of rounding. In cycle II meeting 1, students were able to make questions/conclusions regarding understanding the rounding concept from what was found.

The explanation above can be seen in the appendix, which contains observation data for cycle II meeting 1 where the average percentage of observations is 4 indicators that explain each observed point. From this point, the descriptor has the highest percentage, namely the descriptor: Students can restate a concept on the descriptor students can write the rounding concept correctly. On the descriptor, there are 13 students who can write the rounding concept correctly. While the descriptors have the lowest percentage, namely on 3 descriptors: on descriptors, students can group rounding concepts using their own language quickly and precisely, students can answer correctly about the statement of the rounding concept, and students can make questions/conclusions regarding understanding math concepts.

Results of Action Cycle II Meeting 2

Cycle II meeting 2 with basic competence (KD) 4.7 resolved the problem of rounding the results of length and weight measurements to the nearest unit. The learning indicator solves the problem of rounding the results of measuring the length and weight of the nearest unit. The learning process for each meeting is carried out for 2 hours of learning (2 x 35 minutes). This cycle uses four stages: planning, action implementation, observation, and reflection. The results of this reflection are used as a basis for determining corrective actions in the next cycle.

Observation of Cycle II Meeting 2

a. Teacher activity

Based on the results of observations, the 18 aspects observed have been carried out well. The researcher saw that the teacher had carried out the learning process optimally. The results of this observation indicate that the teacher has carried out according to the steps of the Team Assisted Individualization (TAI) learning model.

b. Student Activity

Based on the observations from the 18 students who attended cycle II meeting 2, the results were the percentage of the ability to understand mathematical concepts in participating in the learning process. Based on the data above, the researcher can conclude that there are no students who are classified as very poor (KS), less (K), and enough (C). Then, 6 students are in good predicate (B), and 12 are in very good predicate (SB).

The results of observations on the ability indicator restate a concept on the descriptor of students being able to write down the rounding concept correctly. In cycle II meeting 2, students experienced an increase in writing the concept of calculating rounding correctly. Observations on the indicators classify objects based on the concepts on the descriptors. Students can classify rounding concepts using their own language quickly and precisely. In cycle II meeting 2, students experienced increased descriptors grouping rounding concepts using their own language quickly and precisely.

The results of observations on indicators provide examples or contra examples of the concepts studied on student descriptors that can answer correctly regarding the statement of the rounding concept. In cycle II meeting 2, students experienced an increase in answering correctly regarding the statement of the rounding concept. The results of observations on indicators present concepts in various representations on descriptors, namely, descriptors of students can make questions/conclusions about understanding the concept of rounding. In cycle II meeting 2, students could make questions/conclusions regarding understanding the rounding concept from what was found to be clear, not shy, and precise.

The explanation above can be seen in the appendix containing observation data for meeting 2, where the average percentage of observations is 4 indicators that explain each observed point. From that point, the descriptors of each descriptor have increased.

Results of Testing Understanding of Mathematical Concepts Cycle II

Based on the results of testing the understanding of the concept of 18 students who were present in cycle II, what percentage of the results of testing students' understanding of mathematical concepts was obtained? Based on the data above, the researcher can conclude that there are no students who are classified as very poor (KS), less (K), and enough (C). Then, 5 students are in the good predicate (B), and 13 are in the very good predicate (SB).

Comparison of Results Between Cycles

Based on the observations of student activity (understanding of mathematical concepts) in cycles I and II, it was found that students who achieved the completeness criteria in cycle I totaled 18 students, and cycle II totaled 18 students. The percentage in classical cycles I and II are 60.35% and 87.08%, respectively. A comparison of the results of observations of student activity (understanding of mathematical concepts) between cycles can be seen in the following figure:

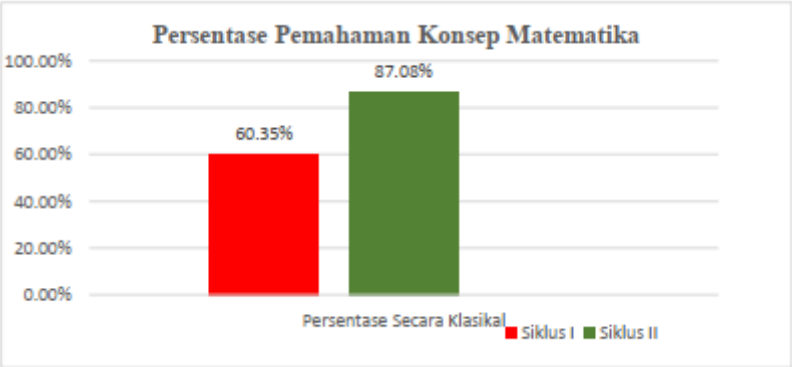

Figure 1. Comparison of the percentage of conceptual understanding between cycles

The results of testing students' understanding of concepts in cycle I can be seen that there is an increase compared to before the Team Assisted Individualization (TAI) learning model was applied. The percentage classically increased from 46.11% in pre-cycle to 73% in cycle I. However, cycle I did not meet the established success indicator criteria, namely ≥75%. The results of testing students' understanding of mathematical concepts in cycle II increased to 88%. Data on student learning outcomes can be presented in Figure 2 below:

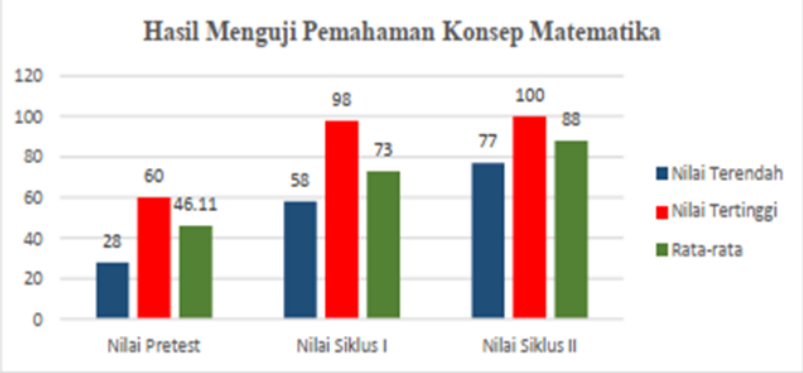

Figure 2. Comparison of the results of testing students' understanding of mathematical concepts in pre-cycle, cycle I and cycle II

From the data above, it can be concluded that between the scores of students during the Pretest, cycle I and cycle II. The class average value when testing understanding of mathematical concepts before applying the model was 46.11, while in cycle I, it was 73, and during cycle II, it had increased to 88. The research results in cycle II fulfilled the research success criteria: the average value-class average of at least 65. In addition, the actions taken in the learning process have seen improvements. The classical completeness obtained in the second cycle was 88%. This indicated that the second cycle had met the target to be achieved with a classical completeness target of 75%. So it does not proceed to the next cycle.

3.2 Discussion

The research results obtained that using the Team Assisted Individualization (TAI) learning model in increasing understanding of mathematical concepts went well, and the obstacles or problems found during the learning process could be corrected in the next cycle and finally achieved the expected success criteria. This is according to Afritesya & Santoso (2016: 121), who states, "Team Assisted Individualization (TAI) learning models can increase conceptual understanding". Efforts to increase students' understanding of mathematical concepts are carried out in 4 stages: planning, implementing, observing, and reflecting.

At the planning stage of each cycle from cycle I to cycle II, the first thing researchers and teachers do is collaborate in determining the research implementation schedule, then prepare teaching materials such as materials, preparing Handouts, Learning Implementation Plans, Student Worksheets (LKPD) and preparing appropriate learning media. After that, the researcher also prepared an observation sheet for students' conceptual understanding and an observation sheet to implement lesson plans. At the observation stage, it was carried out to find out whether there was an increase in students' understanding of mathematical concepts each time a cycle was carried out. To find out the increase in students' understanding of concepts seen from the learning outcomes of students' understanding of concepts in accordance with existing indicators. In addition, observations were made to see the implementation of the lesson plan by filling out the observation sheet provided before carrying out the action.

In using the Team Assisted Individualization (TAI) learning model, the teacher must be even better at implementing the steps to achieve the observed indicators. Students are divided into small groups of 4-5 people. Then the distribution of handouts and LKPD for each student. Then students pay attention to the teacher's explanation briefly on the subject matter that the teacher will discuss at the meeting. The teacher asks students to study the material in the handout individually and work on the questions in the LKPD. Afterward, the students discussed the material and corrected the LKPD answers with their group mates.

According to Piaget [25] and Mulyati [26], "knowledge or understanding of students is discovered, formed, and developed by the students themselves". After that, the students presented the results of their discussion in front of the class, and the teacher allowed the students to provide feedback. The final step is to conclude the results of the discussion. Evaluation of the course of the discussion and refinement of student answers by the teacher. After that, the implementation of the results tested the understanding of the final mathematical concept. Students worked on it individually and announced the scores for each group during the cycle and the application and awarding of supergroups, great groups, and good groups. The steps of the Team Assisted Individualization (TAI) learning model are appropriate [27], namely:

1. Form small groups of 4-5 people.
2. Distribution of handouts and worksheets for each student.
3. Brief study of the day's meeting material.
4. Students learn individually about learning materials using distributed teaching materials.
5. Students discuss the material and correct LKS answers with group mates.

6. Group representatives present the results of group work.
7. The other groups respond with questions.
8. Evaluation of the course of the discussion.
9. Implementation of the final test individually.
10. Announcement of scores for each group and awarding of super, great, and good groups.

Based on research from cycle I and cycle II conducted by researchers, there was an increased understanding of mathematical concepts, which was improved using the Team Assisted Individualization (TAI) learning model in class IV B elementary school No. 64/I Muara Bulian. In the first cycle, the results of observations regarding the understanding of mathematical concepts were 60.35%, meeting 1 was 50.27% and experienced an increase in meeting 2, which was 70%. In this first cycle, there were still deficiencies in observing teacher and student activities using the Team Assisted Individualization (TAI) learning model. Namely, the teacher did not provide apperception to student preparation, did not convey learning objectives, or motivated students. Obstacles found by students are a little difficult to manage, and often struggle in learning.

At meeting 2, several aspects were not carried out by the teacher, namely that they did not give an apperception of the previous material as preparation for students in learning. The cause is that the teacher does not master the class, and there is still material that is not mastered. At meeting 2, some students still paid little attention to the teacher's explanation and played alone with the handouts used to work on the LKPD.

In cycle II, the results of observations regarding the understanding of mathematical concepts were equal to 87.08%, meeting 1 was 81.94% and experienced an increase at meeting 2, which was equal to 92.22%. In this second cycle, the results of observations and learning outcomes of students have exceeded the success criteria, so the cycle can be stopped. In cycle II, the results of observations of teacher activities using the Team Assisted Individualization (TAI) learning model have been carried out.

The percentage of action achievements from the results of observations from cycle I to cycle II has increased in students' understanding of mathematical concepts. Students learning outcomes are categorized as complete individually, reaching a value of ≥ 65 for 18 people, and the learning outcomes of students are said to be complete in a classical manner if they reach ≥ 75% of the number of students. Based on the results of observations and the results of testing understanding of mathematical concepts, it can be concluded that understanding of mathematical concepts can be increased by using the Team Assisted Individualization (TAI) learning model in class IV B elementary school No. 64/I Muara Bulian.

Cooperative learning of the Team Assisted Individualization (TAI) type is also suitable for solving mathematics learning problems [28]–[30]. Apart from working in groups, the Team Assisted Individualization learning model also incorporates individual learning [31], [32]. Moreover, the cooperative learning model can build an atmosphere of seriousness between students and the teacher so that student's understanding of mathematical concepts is expected to increase [33]–[35]. So it can be said that this learning model can contribute and have a positive impact on learning [36]. The advantages of using the Team Assisted Individualization learning model are that it can combine the advantages of cooperative learning and individual learning and can overcome student learning difficulties individually [37]. Then according to Ningrum [38], the advantages possessed by this model in influencing students' attitudes and learning skills include increasing attitudes of responsibility and cooperation and developing students' skills in discussions and solving problems in the learning process.

4. CONCLUSION

The teaching and learning process uses the Team Assisted Individualization (TAI) learning model, which is carried out to increase students' understanding of mathematical concepts. This can be seen based on the results of research that increased students' understanding of mathematical concepts from cycle I to cycle II. This is because, in the learning process with the Team Assisted Individualization (TAI) learning model, the teacher prepares handouts as a source for understanding mathematical concepts while providing guidance and motivation for each group. Group representatives will present the results of their work by preparing students to optimize time. The teacher arouses students' curiosity using media images during the learning process and provides worksheets for students in groups, which can make students focus on carrying out group assignments so that an attitude of cooperation and mutual assistance grows in groups. The guidance given by the teacher is proven to make the spirit of student cooperation better.

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