IMPROVING LEARNING OUTCOMES THROUGH TEAM ASSISTED INDIVIDUALIZATION (TAI) COOPERATIVE LEARNING MODELS

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ABSTRACT
The use of the Team Assisted Individualization (TAI) cooperative learning model can improve learning outcomes in students at SMA Muhammadiyah 5 Makassar. Classroom action research consisting of two cycles, where each cycle consists of two meetings, with activity stages including planning, implementing, observing, and reflecting. The subjects of this study were all fourth grade students at SMA Muhammadiyah 5 Makassar, Makassar, a total of 41 students consisting of 21 male students and 20 female students. The increase in learning outcomes through the Team Assisted Individualization (TAI) type cooperative learning model in students of SMA Muhammadiyah 5 Makassar is seen by the increasing average value of student learning outcomes in cycle I which is in the low category and is in the high category in cycle II. The results showed that the application of the Team Assisted Individualization (TAI) cooperative learning model could improve the learning outcomes of students at SMA Muhammadiyah 5 Makassar.

Keywords: Student learning outcomes, Team Assisted Individualization, .

INTRODUCTION
Education is something that is very influential in every human activity. Starting from education in the family environment, schools to education in the community environment. Education is essentially a conscious and planned effort to form a complete human being, or it can also be said to be a process in humanizing human activities.

In education, learning resources are a very important component and have a broad scope. It is said so because learning resources have several benefits, both for teachers and for students who are learning, therefore by making the best use of learning resources will be able to support student success in learning, talking about learning resources actually cannot be separated from learning resources alone. The printed material books are only a narrow understanding of the learning resources themselves. It is even more wrong to assume that the teacher is the only source of learning.
Learning resources are not only in the form of books or teachers, but have a broad scope. Success in teaching is not only determined by learning resources, but also determined by other components such as teaching models and so on. In teaching subjects, English, of course the teacher will provide stimulation in the form of assignments that can spur students’ activeness in learning. One role of the learning resources will be seen when the child is working on assignments or in understanding the concepts, in the teaching of subjects, the learning methods used vary widely. Therefore, the selection of a good and appropriate teaching model greatly determines success in learning.

The problem that is generally faced by teachers is how to package the learning process so that it can provide meaningful experiences for students. Quality learning certainly provides a very deep impression for each student in the long term. According to constructivism learning theory students must build their own knowledge within themselves, therefore each student must be given the opportunity to find or apply their own ideas, and teach students to be aware and consciously use their own strategies for learning. The teacher gives stairs to students to a higher understanding but the students themselves have to climb the stairs.

Based on the results of initial observations at SMA Muhammadiyah 5 Makassar, especially for English, a problem was found, namely the behavior of students who were less enthusiastic or less active in receiving lessons and learning was more teacher-centered (teacher oriented), not to students (student oriented), and there are some students who play around in class. Attitude is less active, sometimes there are those who play alone in class are some of the problems faced by SMA Muhammadiyah 5 Makassar, especially for English subjects.

The low learning outcomes obtained by students cannot be separated from the teacher's teaching methods which are considered unable to increase student activity and learning outcomes. The use of the monotonous lecture method sometimes makes students bored with what is conveyed by the teacher, students tend to be playful and not enthusiastic in class when the teaching and learning process takes place. As a result, not the slightest material is stored in students' memories. If this continues for a long time then the interest, motivation, activity, and student learning outcomes will also decrease.

Basically every teacher wants the learning process that he carries out to be fun and student-centered. Enthusiastic students raised their hands to answer questions or give opinions, cheered to celebrate their success, exchanged information and gave each other encouragement and the ultimate goal of all these processes was mastery of concepts and satisfying learning achievements.

The cooperative learning model can motivate all students, utilize all students' social energy, take responsibility for each other. The cooperative learning model helps students learn every subject, from basic skills to complex problem solving.

*Team Assisted Individualization (TAI)* is included in cooperative learning. In the *Team Assisted Individualization* learning model (TAI), students are placed
in heterogeneous small groups (4-5 students) and are then followed by providing individual assistance to students who need it. With group learning, it is hoped that students can improve their critical thinking, be creative and foster a high social sense.

Before forming groups, students are taught how to work together in a group. Students are taught to be good listeners, to be able to provide explanations to group mates, discuss, encourage other friends to cooperate, respect the opinions of other friends, and so on.

The benefits that can be obtained from this method are that students actively help and encourage enthusiasm for mutual success, actively act as peer tutors to further increase group success, interaction between students along with increasing their ability to argue, good communication is established between fellow students, making it easier for teachers to guide in groups.

METHODS

The approach used in this research is a qualitative approach. The type of research chosen is class action research, because it is relevant to learning problem solving efforts. According to Umar (2005: 10) that "CAR aims to improve and enhance teacher professional services in handling teaching and learning activities". The action plan in this classroom action research was designed to be carried out in two cycles. The data collection techniques that will be carried out in this study are observation, tests, and documentation. The indicator of the success of the action in this study is if the learning outcomes have met the minimum completeness criteria (KKM) of 70 with a percentage of ≥ 70% of all students. Another indicator that can be used is if the results of observing student learning activities and teacher teaching activities qualitatively are in the good category.

FINDINGS AND DISCUSSION

Findings

Implementation of Cycle I

The implementation of learning uses a class action research flow which consists of four stages, where each cycle goes through the planning stage, the action implementation stage, the observation stage and the reflection stage.

This classroom action research has been carried out in class at SMA Muhammadiyah 5 Makassar, where the face-to-face learning time in cycle I.

Activities in this classroom action research (CAR) collect research data in the form of quantitative data obtained from student learning outcomes by conducting written tests at the end of each cycle. Qualitative data based on data obtained from observations or observations of teacher teaching activities and student learning activities during the learning process in improving student learning outcomes in SMA Muhammadiyah 5 Makassar, are described as follows:

a. Planning

Planning begins with the activities carried out are:

1) Examine the curriculum of the field of study.
2) Researchers and teachers together make a lesson plan.
3) Researchers and teachers determine and arrange research instruments.

In addition to the questions contained in the lesson plan as a test instrument, a non-test instrument was also prepared in the form of an observation guide.

b. Action Implementation

The steps for implementing the actions taken by the teacher in cycle I are the steps of the Team Assisted Individualization (TAI) learning model. The implementation of actions in English subjects with material starts from the initial activities, core activities and final activities.

At the initial activity stage, the teacher starts learning by first saying greetings then the teacher checks student attendance, then the teacher does apperception, namely asking and answering questions about what students know about natural resources. After doing the apperception, the teacher then conveys the indicators and competencies that are expected to be achieved in the learning process that will take place.

At the core activity stage, the teacher begins to form groups. The groups formed were 8 groups with the number of members in each group, namely 4-5 students. Each group is given the name of group 1 up to group 8. After finishing dividing into groups, the teacher gives a pre-test to students to see the average level of students' understanding of the material to be studied. It is hoped that in carrying out this pre-test each member in the group can discuss. However, this is still not implemented, this is because it is still awkward for students to be placed in a group situation like this. So that the implementation of work in groups is not carried out properly. Students who can work on these questions do not become peer tutors from their group mates or do not explain to their friends, and vice versa students who are unable to work on these questions do not ask their capable friends or the teacher, so the discussion process is still not very visible in each group. It was seen that only a few members seemed to be discussing with their friends both in their group and with other groups.

When finished, the teacher gives a score to the results of the group's work. However, in the process of group work that has taken place, there is no situation where individual success is influenced by group success. This happens because there is still a lack of discussion processes or processes of exchanging opinions from each group member.

The teacher gives short material. Students listen to a short explanation from the teacher. After the teacher finishes giving short material, the teacher gives a test based on the material that has been delivered. To answer the test given, students must work together in groups, but this process is not very visible.

After all groups have finished working on the tests given, the teacher asks each group to present their work results, and choose the most suitable answer to the existing questions.
At the final activity stage, the teacher and students together conclude the lessons that have been implemented. And then the teacher gave moral messages to all students and after that the teacher closed the learning process by greeting and being answered simultaneously by all students.

c. Observation

1) Observation Results of Teacher Teaching Activities

Results of the teacher's teaching activity observation sheet contain aspects of the application of the Team Assisted Individualization (TAI) type of cooperative learning model, including forming heterogeneous groups of students, conducting Pre-Tests on students to see the average daily value of students, guiding students to create situations of individual success determined by the group, guiding students to be able to work together in groups, giving scores to each group and giving awards to successful and unsuccessful groups, giving material briefly before giving group assignments, carrying out small tests based on facts obtained by students and provide material back at the end of learning with problem solving strategies.

The implementation of cycle I activities on the results of observations made on the teaching activities of class IV teachers at SMA Muhammadiyah 5 Makassar showed that all activities contained in the lesson plans were not well implemented in the learning process of English using the cooperative learning model of the Team Assisted Individualization (TAI) type, namely the indicator of the teacher forming heterogeneous groups of students with the sufficient category, the indicator of the teacher conducting a Pre-Test on students to see the average daily value of students in the sufficient category, teacher indicators guide students to create individual success situations determined by groups with less categories, teacher indicators guide students to be able to work together in groups with sufficient categories, teacher indicators give scores to each group and give awards to groups that are successful or those that have not been successful with good categories, the indicator of the teacher giving material briefly before giving group assignments in the sufficient category, the indicator of the teacher carrying out a small test based on the facts obtained by students enough category, teacher indicator provide material back at the end of learning with problem solving strategies enough category. This is because teachers are still in the process of adapting to implementing Team Assisted Individualization (TAI), while students are still seen doing their own activities that are not related to the lesson, and some are still engrossed in chatting with their classmates, so they don't focus on the ongoing lesson.

2) Observation Results of Student Learning Activities

Qualitative analysis was used to analyze data about the learning activities of fourth grade students at SMA Muhammadiyah 5 Makassar.
Results of the observation sheet of student learning activities contain aspects of the application of the Team Assisted Individualization (TAI) cooperative learning model, including students grouped heterogeneously, students taking the Pre-Test given by the teacher, students carrying out tasks in groups to create a group success situation, students doing cooperation in groups, students get scores for each group and receive awards from the teacher according to the criteria, students listen to the material provided by the teacher, students do a small test given by the teacher, and students record the material provided by the teacher.

The implementation of cycle I activities on the results of observations made on the learning activities of students at SMA Muhammadiyah 5 Makassar shows that student indicators are grouped heterogeneously, there are 9 students who do with a percentage of 23.1% and are in the less category, student indicators follow Pre-Test given by the teacher there were 25 students who did with a percentage of 64.1% and were in the good category, indicators of students carrying out tasks in groups to create situations of group success there were 11 students who did with a percentage of 28.2% and were in the less category, the indicator of collaborating in groups was 8 students who did it with a percentage of 20.5% and were in the less category, the indicators got a score for each group and received an award from the teacher according to the criteria there were 39 students who did it with a percentage of 100% and were in the category very good, indicators of students listening to material provided by the teacher there were 14 students who did it with a percentage of 35.9% and were in the less category, indicator students did a small test given by the teacher there were 34 students who did it with a percentage of 87.1% and were in the very good category and student indicators noted that the material provided by the teacher was 21 students who did it with a percentage of 33.8% and were in the sufficient category.

d. Cycle I Reflection

Cycle I was carried out with 1 face-to-face meeting and each learning implementation Students are divided into 8 groups, where each group is named group 1 to group 8. Heterogeneous group division, namely the distribution of members taking into account academic results, gender, religion, and social background. So that in one group there is a diversity, both in terms of academic results and gender. Some of the students were not happy with the distribution of groups with such rules, they thought they were not able to work together with students who were not close friends, because each previous group distribution process was only carried out by the students themselves, so they chose group members based on individual closeness between one member and another.

At the cycle I meeting most of the students were not able to follow this lesson properly, this was because the students were not familiar with the application of the techniques implemented. From the results of observations, it was found that cooperation in groups had not been carried out properly, each member of the group was still awkward in being and working together in a group and in groups there was often commotion between members in the group and even
between members of one group and another. This happens that some students often disturb other students and students who often disturb it are generally carried out by male students. In general, students in each group have not been able to carry out the expected discussions, only students with high academic abilities or group leaders who play an active role in the discussion process, while others only expect or wait for the group leaders to complete the tasks given without participating in it.

From the teacher's perspective, this is also because the teacher does not understand the Team type cooperative learning model well Assisted Individualization (TAI) which is applied in reading comprehension learning, so that in the ongoing learning process, the implementation of the steps of the Team Assisted Individualization (TAI) cooperative learning model has not been implemented optimally.

Findings in Cycle I

Based on the findings obtained in the implementation of cycle I are as follows:

a. Lack of student interest in reading, so they are less enthusiastic about completing assignments.

b. Students who are not familiar with the application of the Team Assisted Individualization (TAI) cooperative learning model still feel confused in the learning process.

c. Students still play more than pay attention to the teacher's instructions. They occasionally talk with friends from other groups that are not related to the material or activities that are currently taking place in class.

d. Students are less active in completing group assignments. This is shown by their lack of cooperation in groups because they still feel awkward working together and exchanging ideas with one another.

e. Teachers do not understand well the steps of the Team type cooperative learning model Assisted Individualization (TAI) implemented in the learning process.

At the end of each cycle an evaluation test is carried out, from the results of the evaluation test it can be seen to what extent the level of students' understanding of the material provided using the Team Assisted Individualization (TAI) cooperative learning model. The results of the evaluation test can be seen in table 1 as follows:
Table 1: Evaluation test results for third grade students at SMA Muhammadiyah 5 Makassar on the English subject

<table>
<thead>
<tr>
<th>Score</th>
<th>Category</th>
<th>Frequency</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>0 – 34</td>
<td>Very low</td>
<td>8</td>
<td>20.51%</td>
</tr>
<tr>
<td>35 – 54</td>
<td>Low</td>
<td>8</td>
<td>20.51%</td>
</tr>
<tr>
<td>55 – 64</td>
<td>Currently</td>
<td>6</td>
<td>12.82%</td>
</tr>
<tr>
<td>65 – 84</td>
<td>Tall</td>
<td>17</td>
<td>45.59%</td>
</tr>
<tr>
<td>85 – 100</td>
<td>Very high</td>
<td>2</td>
<td>2.56%</td>
</tr>
<tr>
<td>Total</td>
<td></td>
<td>41</td>
<td>100%</td>
</tr>
</tbody>
</table>

Source: student evaluation test results cycle I.

Based on the data in table 1, it shows the value of the evaluation test results of 41 students, where there were 2 students in the very high category, 17 students in the high category, 6 students in the medium category, 8 students in the low category, and 8 students in the very low category. The results of the student evaluation test in cycle I obtained the highest score of 85 and the lowest score of 20.

If the results of the student evaluation tests in cycle I are analyzed, then the percentage of student learning completeness after the implementation of the Team Assisted Individualization (TAI) type cooperative learning model in cycle I can be seen in table 4.2 below:

Table 2: Description of the learning completeness of students at SMA Muhammadiyah 5 Makassar cycle I in English subjects

<table>
<thead>
<tr>
<th>Score</th>
<th>Category</th>
<th>Frequency</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>0 – 69</td>
<td>Not Completed</td>
<td>33</td>
<td>82.05%</td>
</tr>
<tr>
<td>70 – 100</td>
<td>complete</td>
<td>8</td>
<td>17.95%</td>
</tr>
</tbody>
</table>

Source: Student evaluation test results.

Based on the data in table 2 above, it can be seen that out of 39 students there were 33 students or 82.05% who had not finished studying, and 8 students or 17.95% who had finished studying. This means that it is necessary to continue cycle II because the average results of student evaluation tests in SMA Muhammadiyah 5 Makassar in English subjects with the application of the Team Assisted Individualization (TAI) cooperative learning model are 54.28 which is at low category with a learning completeness percentage of 17.95% and cannot be said to be successful because it is below the standard value of the minimum completeness criteria (KKM) that has been set, which is 70 with a completeness percentage ≥ of 75% of all students.

**Implementation of Cycle II**

a. Planning

Implementation of face-to-face learning in cycle II and the end of the cycle evaluation test was carried out.
Cycle II planning begins with activities things to do are:
1) Examine the curriculum.
2) Researchers and teachers make a lesson plan.

   In cycle II it is planned that there will be one meeting.
3) Researchers and teachers determine and arrange research instruments. In addition to the questions contained in the lesson plan as a test instrument, a non-test instrument was also prepared in the form of an observation guide.

b. Action Implementation

   The steps for implementing the actions taken by the teacher in cycle I are the steps of the Team Assisted Individualization (TAI) learning model. The implementation of actions in English subjects with material starts from the initial activities, core activities and final activities.

   At the initial activity stage, the teacher starts learning by first saying greetings then the teacher checks student attendance, then the teacher does apperception, namely asking and answering questions about what students know about natural resources. After doing the apperception, the teacher then conveys the indicators and competencies that are expected to be achieved in the learning process that will take place.

   At the core activity stage, the teacher begins to form groups. The groups formed were 8 groups with the number of members in each group, namely 4-5 students. Each group is given the name of group 1 to group 8. After finishing dividing into groups, the teacher gives a pre-test to students to see the average level of students' understanding of the material to be studied. It is hoped that in carrying out this pre-test each member in the group can discuss. In general, the discussion process in the group has been carried out well, but there are still some group members who are still busy with their own activities regardless of their group mates who are busy discussing. Students who can work on these problems can already become peer tutors from their group mates or, and if there are group members who don't understand, they will ask their friends or even the teacher, so that the discussion process is visible in each group.

   When finished, the teacher gives a score to the results of the group's work. Because they have conducted group discussions when carrying out their duties, individual success has been influenced by group success. This happened because of the discussion process or the process of exchanging opinions from each member of the group.

   The teacher gives short material about natural resources. Students listen to a short explanation from the teacher. After the teacher finishes giving short material, the teacher gives a test based on the material that has been delivered. To answer the test given, students must work together in groups. After all groups have finished working on the tests given, the teacher asks each group to present their work results, and choose the most suitable answer to the existing questions.
At the final activity stage, the teacher and students together conclude the lessons that have been implemented. And then the teacher gave moral messages to all students and after that the teacher closed the learning process by greeting and being answered simultaneously by all students.

c. Observation

1) Observation of Teacher Teaching Activities

Data from observations or observations made during the learning process of English material through the aspect of applying the Team Assisted Individualization (TAI) cooperative learning model to students and teachers of SMA Muhammadiyah 5 Makassar. Observation of teaching activities includes aspects of the application of the Team Assisted Individualization (TAI) cooperative learning model.

Results of the teacher's teaching activity observation sheet contain aspects of the application of the Team Assisted Individualization (TAI) type of cooperative learning model, including forming heterogeneous groups of students, conducting Pre-Tests on students to see the average daily value of students, guiding students to create situations of individual success determined by the group, guiding students to be able to work together in groups, giving scores to each group and giving awards to successful and unsuccessful groups, giving material briefly before giving group assignments, carrying out small tests based on facts obtained by students and provide material back at the end of learning with problem solving strategies.

Implementation of cycle I I activities on the results of observations made on the teaching activities of teachers at SMA Muhammadiyah 5 Makassar shows that all activities contained in the RPP have been well implemented in the learning process of English on the subject matter of natural resources by using the cooperative learning model of the Team Assisted Individualization (TAI) type, namely the indicator of the teacher forming heterogeneous groups of students with the good category, the indicator of the teacher conducting a Pre-Test on students to see the average daily value of students in the sufficient category, teacher indicators guide students to create situations of individual success determined by the group with good category, teacher indicators guide students to be able to work together in groups with good categories, teacher indicators give scores to each group and give awards to groups that are successful or those that have not succeeded in good categories, teacher indicators provide material briefly ahead of giving group assignments in good categories, teacher indicators carry out small tests based on facts obtained by students enough category, teacher indicator provide material back at the end of learning with problem solving strategies enough category.

Based on the description above, the teaching activities of teachers in the learning process of English on natural resources material through the application of the Team Assisted Individualization (TAI) learning model so that the learning
objectives are to increase teacher teaching activities, student learning activities so that student learning outcomes can increase optimally.

2) Observation of Student Learning Activities

Observation sheets for student learning activities are used to determine the learning activity of students at SMA Muhammadiyah 5 Makassar in the learning process in cycle II after applying the Team Assisted Individualization (TAI) learning model in cycle II.

The implementation of cycle II activities on the results of observations made on the learning activities of students at SMA Muhammadiyah 5 Makassar shows that student indicators are grouped heterogeneously, there are 41 students who do with a percentage of 100% and are in the very good category, student indicators follow Pre- The test given by the teacher consisted of 28 students who did it with a percentage of 71.8% and were in the good category, indicators of students carrying out tasks in groups to create a group success situation were 20 students who did with a percentage of 51.3% and were in the sufficient category, the indicators of working together in groups were 20 students who did it with a percentage of 51.3% and were in the sufficient category, the indicators got a score for each group and received an award from the teacher according to the criteria there were 39 students who did it with a percentage of 100% and were in the very good category well., student indicators meng imak the material provided by the teacher there were 19 students who did it with a percentage of 48.7% and were in the sufficient category, indicator students did a small test given by the teacher there were 34 students who did it with a percentage of 87.1% and were in the very good category and student indicators noted that the material provided by the teacher was 25 students who did it with a percentage of 64.1% and were in the good category.

Based on the description above, the implementation of cycle II with attention to student learning activities through the application of the Team Assisted Individualization (TAI) learning model has increased significantly, so that the learning objectives are to improve learning outcomes so that students’ reading comprehension skills can be achieved optimally.

a. Cycle II reflex

Cycle II was carried out with one face-to-face meeting and one evaluation test at the end of the cycle, where at the face-to-face meeting students were divided into 8 groups, where each group was named group 1 to group 8. The learning process with the application of the Team Assisted Individualization (TAI) type cooperative learning model, events that can be recorded during the teaching and learning process taking place in cycle II are as follows: teacher indicators form heterogeneous groups of students with good categories, teacher indicators conduct Pre-Tests to students to see the average daily value of students in the sufficient category, teacher indicators guide students to create individual success situations determined by groups with good categories, teacher indicators guide
students to be able to work together in groups with good categories, teacher indicators give scores to each group and give awards to groups that are successful or those that have not succeeded in good categories, teacher indicators provide material briefly ahead of giving group assignments in good categories, teacher indicators carry out small tests based on facts obtained by students enough category, teacher indicator provide material back at the end of learning with problem solving strategies enough category. Thus, the teacher's teaching activities in the learning process through the application of the Team Assisted Individualization (TAI) cooperative learning model can increase significantly so that learning objectives can be achieved optimally.

Furthermore, the results of observations of student learning activities in cycle II showed that student indicators were grouped heterogeneously, students took the Pre-Test given by the teacher, students carried out tasks in groups to create situations of group success, students collaborated in groups, students got their respective scores groups and received awards from the teacher according to the criteria, students listened to the material provided by the teacher, students carried out a small test given by the teacher, and students recorded the material provided by the teacher, there were no more students who were in the less category. Thus the implementation of cycle II activities by paying attention to student learning activities in learning reading comprehension after applying the Team Assisted Individualization (TAI) cooperative learning model, so that the learning objectives to improve student learning outcomes can be achieved optimally.

Based on the learning outcomes in appendix 14 in cycle II, the average value of student learning outcomes in cycle II was 76.8 and the average value was in the high category with a learning completeness percentage of 79.5%. This indicates an increase in the class average from cycle I of 54.28 to 76.8 in cycle II. The results of the second cycle evaluation test can be seen in table 4.3 as follows:

<table>
<thead>
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</tr>
</thead>
<tbody>
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<td>Very low</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>35 – 54</td>
<td>Low</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>55 – 64</td>
<td>Currently</td>
<td>2</td>
<td>5.1%</td>
</tr>
<tr>
<td>65–84</td>
<td>Tall</td>
<td>26</td>
<td>66.7%</td>
</tr>
<tr>
<td>85 – 100</td>
<td>Very high</td>
<td>13</td>
<td>28.2%</td>
</tr>
<tr>
<td>Total</td>
<td></td>
<td>41</td>
<td>100%</td>
</tr>
</tbody>
</table>

Source: evaluation test results cycle II students

Based on table 3 above, the results of the student evaluation tests are classified into 5 categories, out of a total of 41 students, where student learning outcomes show that there are no students in the very low and low categories, there
are 2 students in the medium category, 26 students are in high category, and there are 13 students who are in the very high category.

The percentage of student learning completeness after using the Team Assisted Individualization (TAI) cooperative learning model in cycle II can be seen in Table 4 below:

<table>
<thead>
<tr>
<th>Score</th>
<th>Category</th>
<th>Frequency</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>0 – 69</td>
<td>Not Completed</td>
<td>8</td>
<td>20.5%</td>
</tr>
<tr>
<td>70 – 100</td>
<td>complete</td>
<td>33</td>
<td>79.5%</td>
</tr>
</tbody>
</table>

Source: Student evaluation test results

Based on the data in Table 4.4 above, out of 41 students there were 8 students or 20.5% who had not finished studying and 33 students or 79.5% who had finished studying.

Thus, the results of observation and evaluation tests of the implementation of the action in cycle II show that the average student learning outcomes which shows that student learning outcomes can be increased by applying the Team Assisted Individualization (TAI) cooperative learning model to achieve a predetermined success indicator of ≥ 75% of the number of students who achieve the predetermined KKM of 70, so that the implementation of cycle II can be said to be successful.

Discussion

Based on the results of observations of teacher teaching activities on the learning process of natural resources through the Team Assisted Individualization (TAI) type cooperative learning model in SMA Muhammadiyah 5 Makassar in the first and second cycles it shows that the indicators form heterogeneous student groups with the sufficient category in the first cycle but in the second cycle it has been carried out well, the indicator conducts a Pre-Test to students to see that the student's daily average value is in the sufficient category in the first and second cycles, the indicator guides students to create a determined individual success situation by group with the less category in the first cycle but in the second cycle it has been done well, the indicators guide students to be able to work together in groups with the sufficient category in the first cycle but in the second cycle it has been carried out well, the indicators give scores to each group and give awards to groups that are successful or those that have not been successful with good categories in the first cycle and the second cycle, the indicators provide material briefly before giving group assignments with the sufficient category in the first cycle but in the second cycle it is done well, the indicators carry out small tests based on facts obtained by students in the sufficient category in the first cycle and second cycle. Second and indicators provide material back at the end of learning
with problem solving strategies with sufficient category in the first and second cycles.

The teaching activities of teachers at SMA Muhammadiyah 5 Makassar in learning natural resources by applying the Team Assisted Individualization (TAI) cooperative learning model show that much progress has been made by students.

Based on this description, it can be concluded that the application of the Team Assisted Individualization (TAI) cooperative learning model by paying attention to the learning steps applied by the teacher well, the learning outcomes of fourth grade students at SMA Muhammadiyah 5 Makassar can increase.

Student learning outcomes in class X SMA Muhammadiyah 5 Makassar through the application of the Team Assisted Individualization (TAI) type cooperative learning model can be described that based on quantitative analysis of student learning outcomes the level of student understanding is obtained during learning by being given an evaluation test (multiple choice and filling in as many as 10 numbers) shows that the average value of the first cycle is 54.28 with a learning completeness percentage of 17.95 % increasing to 76.8 with a learning completeness percentage of 79.55 % in cycle II. If the learning outcomes are classified into 5 categories based on the provisions of the Ministry of National Education, the student learning outcomes show that there are no students in the very low and low categories, there are 2 students who are in the medium category, 26 students are in the high category, and there are 13 students who are in the very high category. This shows that student learning outcomes by applying the Team Assisted Individualization (TAI) type of cooperative learning model have achieved predetermined success indicators, so that the implementation of cycle II can be said to be successful.

CONCLUSION

Based on the results of the research and discussion that have been put forward, it can be concluded that by applying the Team Assisted Individualization (TAI) cooperative learning model it can improve student learning outcomes in SMA Muhammadiyah 5 Makassar, where in cycle I it is in the low category and in cycle II are in the high category.

REFERENCES