#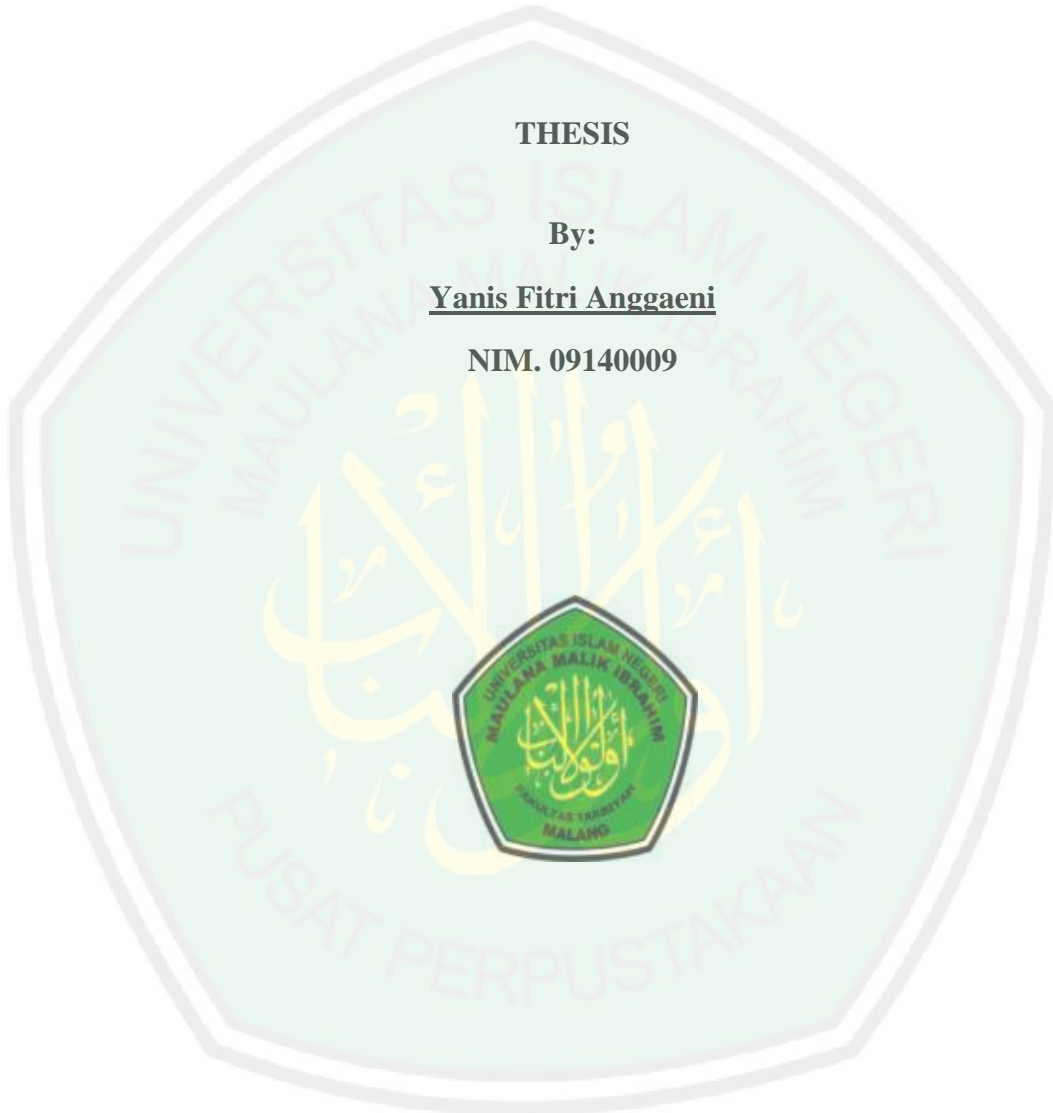 THE APPLICATION OF TAI (TEAM-ASSISTED INDIVIDUALIZATION) METHOD TO IMPROVE 5th GRADE STUDENTS' ACHIEVEMENT ON SCIENCE AT MI MIFTAHUL ULUM SINGOSARI MALANG

THESIS

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TARBIYAH FACULTY
STATE ISLAMIC UNIVERSITY OF MAULANA MALIK
IBRAHIM OF MALANG**

April, 2013

THE APPLICATION OF TAI (TEAM-ASSISTED INDIVIDUALIZATION) METHOD TO IMPROVE 5th GRADE STUDENTS' ACHIEVEMENT ON SCIENCE AT MI MIFTAHUL ULUM SINGOSARI MALANG

Presented to Tarbiyah Faculty the State Islamic University of Maulana Malik Ibrahim Malang in partial fulfillment of the requirements for the degree of Sarjana Pendidikan Islam (S. Pd.I)

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APPROVAL SHEET

THE APPLICATION OF TAI (TEAM-ASSISTED INDIVIDUALIZATION) METHOD TO IMPROVE 5ᵗʰ GRADE STUDENT' ACHIEVEMENT ON SCIENCE AT MI MIFTAHUL ULUM SINGOSARI MALANG

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LEGITIMATION SHEET

THE APPLICATION OF TAI (TEAM-ASSISTED INDIVIDUALIZATION)
METHOD TO IMPROVE 5th GRADE STUDENTS' ACHIEVEMENT ON
SCIENCE AT MI MIFTAHUL ULUM SINGOSARI MALANG

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DEDICATION

Thanks to my beloved parents

Thanks to all of my family

Thanks all of my teacher and my lectures

Thanks to all of my students

Thanks to MI Miftahul Ulum Singosari Malang

MOTTO

فَإِذَا عَزَمْتَ فَتَوَكَّلْ عَلَى اللّهِ إِنَّ اللّهَ يُحِبُّ الْمُتَوَكِّلِينَ

(Fa idza 'azamta fatawakkal 'alallahi innallaha yuhibbul mutawakkilin)

Meaning: "When you have taken a decision, put your trust in Allah. Surely Allah loves those who put their trust in Him". (QS. Ali 'Imran/3 ayat 159).

بِسْمِ اللهِ تَوَكَّلْتُ عَلَى اللهِ لَا حَوْلَ وَلَاقُوَّةَ إِلاَّ بِاللهِ

(*bismillahi tawakkaltu 'alallahi laa haula wa laa quwwata illaa billah*)

Meaning: "In the name of Allah, I put it all to God, because there is no power except by Him".[1]

---

[1] http://hardivizon.com/2011/11/03/ikhtiar-tawakal-ikhlas/ (accessed at April, 10th 2013)

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H. A. Nurul Kawakib, M.A, M.Pd
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ADVISOR OFFICIAL NOTE

Matter   : Thesis of Yanis Fitri Anggaeni   Malang, April, 01st, 2013
Appendices : 4 (four) exsemplars

The Excellency,
Dean of Tarbiyah Faculty
State Islamic University of Maulana Malik Ibrahim Malang
at
    Malang

Assalamu'alaiakum Wr. Wb.

    After carrying out several times for guidance, both in terms of content, language and writing technique, and after reading the following thesis:

        Name   : Yanis Fitri Anggaeni
        NIM   : 09140009
        Department   : PGMI
        Thesis Title   : The Application of TAI (Team Assisted
                  Individualization) Method to Improve 5th Grade
                  Students' Achievement on Science at MI Miftahul
                  Ulum Singosari Malang

    As the advisor, we argue that this thesis has been proposed and tested decent. Thus, please tolerate presence.

Wassalamu'alaikum Wr. Wb.

                                      Advisor,

                                  H. A. Nurul kawakib, M.A, M. Pd
                                  NIP. 197507312001121001

STATEMENT

I hereby declare that this thesis is no work that has presented to acquire a degree at a university and there is also never written, opinions of other, except that in writing referred in this manuscript and mentioned bibliography.

Malang, April, 01st 2013

Yanis Fitri Anggaeni

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Alhamdulillah, thanks to Allah who has given me guidance and blessing in fishing this thesis, entitled "*The Application of TAI (Team Assisted Individualization) Method to Improve 5th Grade Students' Achievement on Science at MI Miftahul Ulum Singosari Malang*". Shalawat and Salam are always for Prophet Muhammad SAW, who guided us the straight ways.

This thesis will never been completed without some contribution and supports from many people. The author realizes that this writing cannot be separated from the guidance and direction of various parties. Therefore the author wants to the greatest thanks and the highest award to:

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2. Dr. H. M. Zainuddin, MA is as the Dean of Tarbiyah Faculty

3. Dr. Hj. Sulalah, M. Ag is as the Head of Primary School Teacher Education Department.

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8. My beloved friends in ICP PGMI 2009 give me spirit.

9. All of parties who give support to finish this thesis

The author knows that this thesis is far from the perfect, therefore the author hopefully suggest from readers for improving in the future.

Malang, April, 01st 2013

Author

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ABSTRACT

Anggaeni, Yanis Fitri. 2013. *The Application of TAI (Team Assisted Individualization) Method to Improve 5th Grade Students' Achievement on Science at MI Miftahul Ulum Malang*. Thesis, Islamic Elementary Education Department, Tarbiyah Faculty, State Islamic University of Maulana Malik Ibrahim Malang. H. A. Nurul Kawakib, M.A, M.Pd

The goal achievement of education depends on the learning process which happens to the students. Learning process is the changing of behavior. The changing of behavior is achievement of interaction with the environment. Good learning activity happens when the students conduct instructional activity effectively and efficiently. The traditional teaching method effects low score on the academic students. Therefore the researcher applies Team-Assisted Individualization method to improve students' achievement on science.

Team-Assisted Individualization method is combining of cooperative learning and individualization program. Every member in the group has responsibility because the success of individual determines the success of group. Team-Assisted Individualization will build students' motivation and increase students' achievement. In individual program students have chance to start these materials based on their selves. The appreciation group hopefully can motivate the students in their activity.

This research is conducted in the fifth grade at MI Miftahul Ulum Singosari Malang. The objectives of the research are describing the instruction planning, the learning process, and instruction assessment of TAI (Team-Assisted Individualization) method is implemented to improve 5th grade students' achievement on science at MI Miftahul Ulum Singosari Malang.

This research uses classroom action research. Classroom Action Research is a research which is done by teachers in collaboration with researcher. The research is intended to reveal symptoms through holistic-contextual data collection. The data collection is gotten by the natural background. A researcher uses the self-instrument key. Teaching and learning process is conducted two cycles which each cycle consisted of two meetings involved four stages such as planning, acting, observing, and reflecting. The researcher gained the data in the form of the students' observation during class activities, the result of the students' individual score, and the students' response (opinion) toward the implementation of Team Assisted Individualization.

The application of team assisted individualization method affects to improve student achievement. There is increasing of student achievement from pre test to post test. This method can strengthen the social environment of students. There is increasing of student achievement from pre test to post test. Increasing of pre test is 20% from cycle I. Increasing between pre-test and cycle II is 29 %.

Keyword: Team Assisted Individualization, To Improve Students' Achievement.

ABSTRACT

Anggaeni, Yanis Fitri. 2013. *The Application of TAI (Team Assisted Individualization) Method to Improve 5th Grade Students' Achievement on Science at MI Miftahul Ulum Malang*. Skripsi, Jurusan Pendidikan Guru Madrasah Ibtidaiyah, Fakultas Tarbiyah, Universitas Islam Negeri Maulana Malik Ibrahim Malang. H. A. Nurul Kawakib, M.A, M.Pd

Hasil tujuan pendidikan tergantung pada proses pembelajaran yang terjadi pada peserta didik. Proses pembelajaran adalah perubahan tingkah laku. Perubahan tingkah laku merupakan hasil dari interaksi dengan lingkungan. Aktivitas pembelajaran yang baik terjadi ketika peserta didik melakukan aktivitas pembelajaran dengan efektif dan efisien. Metode pembelajaran tradisional mengakibatkan nilai akademik peserta didik menjadi rendah. Oleh karena itu peneliti menerapkan metode Team-Assisted Individualization method untuk mengembangkan prestasi belajar ilm pengetahuan alam peserta didik.

Metode Team-Assisted Individualization merupakan perpaduan antara pembelajaran kooperatif dan program individual. Setiap anggota kelompok mempunyai tanggung jawab karena kesusksesan individu menentukan kesuksesan kelompok. Team-Assisted Individualization akan membangun motivasi dan meningkatkan prestasi belajar peserta didik. Dalam program individual, peserta didik mempunyai kesempatan untuk memulai materi pelajaran seesuai denagn kemampuan mereka. Penghargaan kelompok diharapkan dapat memotivasi peserta didik dalam akivitas belajar.

Penelitian ini dilaksanakan di kelas lima MI Miftahul Ulum Singosari Malang. Tujuan penelitian adalah menggambarkan rencana pembelajaran, proses pembelajaran, dan evalasi pembelajaran. Metode TAI (Team-Assisted Individualization) diimplementasikan untuk meningkatkan prestasi belajaral kelas 5 MI Miftahul Ulum Singosari Malang.

Penelitian ini menggunkan penelitian tindakan kelas. Penelitian Tindakan Kelas adalah penelitian yang dilaksanakan oleh guru kolaborasi dengan peneliti. Penelitian ini bermaksud mengungkap gejala-gejala melalui pengumpulam data secara kontektual dan menyeluruh. Pengumpulan data diperoleh dari latar belakang yang alami.peneliti sebagai kunci utama pengumpulan data. Proses pembelajaran dilaksanakan dua siklus yang masing-masing siklus dua kali pertemuan yang melibatkan rencana, pelaksanaan, observasi, dan refleksi. Peneliti memperoleh data dari aktivitas peserta didik selama di kelas, nilai peserta didik, dan pendapat peserta didk dalam melaksanakan Team Assisted Individualization.

Penerapan metode team assisted individualization meningkatkan prestasi belajar. Metode ini dapat memperkuat kondisi social peserta didik. Adanya peningkatan nilai pre-test to post-test. Peningkatan 20% dari nilai pre-test ke siklus 1. Peningkatan antara pre-test dan siklus ke-2 sekitar 29 %.

Kata Kunci: Team Assisted Individualization, To Improve Students' Achievement.

CHAPTER I

INTRODUCTION

A. Background of the Study

A qualified education is important aspect in such country, therefore the future nation depends on the quality of education. Education is not only enough for being studied but also education contains of future phenomena about human and society. The aim of education creates a smart people and explores capability of people in order to be religious, creative, and independence. The country will develop well, if every citizen has an educational access.

Based on policy of law No. 20 year 2003 about National Educational System[1], it explains that the national education which can develop potential of student in order to educate life of the learner to be religious, creative, independent, being democratic and responsible citizen. Teacher has important role in education because the teacher conveys the education system. Based on Indonesian policy of Law No. 14 year 2005 article 10 on Teacher and Lecturer, it explains about teacher's competences. Teacher's competences are pedagogic, personality, social, and professionalism competence.[2]

Pedagogic competence is teacher's capability to manage the teaching and learning process. Personality competence is kind of good personal such as wise,

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[1] Wina Sanjaya, *Strategi Pembelajaran Berorientasi Standar Pendidikan* (Jakarta: Kencana, 2006,), p. 273

[2] Martinis Yamin, *Profesionalisasi Guru & Implementasi KTSP* (Jakarta: Tim Gaung Persada Press, 2009), p. 199

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authority, and as an educational role model. Social competence is teacher's capability to communicate and interact with students, colleague, parents, and society. Professionalism competence is teacher's capability for being expert the subject matter in learning.

The school prepares the student as member of society in the future, therefore educational institution must have orientation in future society life. The aim of teaching and learning process is on changing of student's mind. The changing of student is about the student's knowledge, comprehension, skill, and behavior.

The goal achievement of education depends on the learning process which happens to the students. Learning process is the changing of behavior. The changing of behavior is achievement of interaction with the environment. Good learning activity happens when the students do instructional activity effectively and efficiently. The effective learning happens if the student achievement is better than before. The efficient learning happens if the teacher uses the time efficiently in learning process.

The learning process runs well in the conducive classroom. The conductive situation happens when the students feel comfort and understand about the learning process. Learning experiences consist of knowledge, skill, and attitude. The aim of teaching and learning is for improving three aspects such as cognitive, affective, and psychomotor. Science focuses on direct experience that develops students' competence[3]. Cognitive is the whole activities of brain.

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[3] Trianto, *Model Pembelajaran Terpadu* (Jakarta Bumi Aksara, 2010), p.136

Cognitive relates to capability of memorizing, understanding, implying, analyzing, creating, and evaluating. The affective aspect includes character and behavior of the students. The achievement of psychomotor involves skill and attitude of students.

The researcher will conduct the classroom action research in MI Miftahul Ulum Singosari Malang. The researcher chooses this school because this school is important to be investigated. This school has many problems in the teaching and learning process. There is lack of qualified science teachers, lack motivation on the part of the students and teachers, lack supporting facilitate to improve in the learning process. There are laboratory is being constructed, nothing LCD, blackboard and chalk. Some teachers use traditional teaching method and base on the text book that encourages rote memorization of learning. The home and cultural background of the students may not encourage them to learn science. The researcher ever observed in this school so some teachers recognize with the researcher. That creates natural condition in the research because the researcher can be closer with some teachers. The researcher has to appropriately apply the method based on subject matter, characteristic of the students, and social condition in the school.

The researcher interviewed some teachers and took scoring document about science learning of 5th graders of MI Miftahul Ulum Singosari Malang. The interview results –especially on the material about digestive system related to food and health- show that the student who received grades above the minimum score criteria (KKM) or the passing grade is 48% of 27 students. The minimum

score criteria or the passing grade are 65 score. The students who have high achievement are less than the students who have low achievement. The high score of academic students are upper than 65 score. The low score of the students are lower than 65 score. The students are lack of motivation and inactive in the learning process. In this case, the teacher uses conventional instructional of chalk and talk. The teacher dominates the learning process. The students are boring because they are as passive students. The teacher centered method effects low score on the academic students. Some students are boring when the teacher explains the material repeatedly, but the others students complain when the teacher explains the material too fast.

Sometimes the teacher uses discussion method but the teacher explains a lot of material in the class. When the teacher asks the students to discuss the material with the others, they tend to be not focus in the class. The students who sit in the corner are playful and noisy.

The teacher has an important role for implement's appropriate learning method. Currently, there are many learning methods but the teacher has to choose a suitable learning method related to the material, characteristic of students, and supporting tools.

Students are as social being. Characteristic of social being is mutually assisting each other. This situation can be applied in learning process. The students live in environmental social condition. The students can study and solve the problem about lesson material with the other.

Students are heterogeneous. Every student has different academic capability. The students' achievement can be high, intermediate, and low. The students who have high achievement get confidence when the teacher asks him to assist the students who have low achievement. The student who have high achievement encourage the others students for getting good achievement. For shy students, they will ask the clever student for helping them if they are afraid to their teacher. The teaching and learning process do not only create a competitive but also cooperative atmosphere among the students.

In this case, education emphasizes on active students. This situation is suitable with constructivism approach. Team assisted individualization can be applied appropriately in the teaching and learning activity because the class consists of heterogenic students.

Effective learning can involve active student. One of effective learning is cooperative and student centered. The teachers can use many methods of cooperative learning. One of cooperative learning methods is TAI (Team-Assisted Individualization).

Team-Assisted Individualization method is combining of cooperative learning and individualized program. The student competes with the other in individual program but it doesn't put aside cooperative aspects. This method is implied in difficult material on natural science. The difficult material can be solved together. The students realize that success of individual will effects on the group success.

Team-Assisted Individualization will build students' motivation. Team-Assisted Individualization can make teachers' time efficiently for presentation, so the learning process is more efficient than lecturing method. In this case, the role of educator is as a facilitator and mediator in the learning process. Teacher is as facilitator for helping the students' understanding and facilitating media on learning process. The teacher is as the guider in studying clearly and actively in learning process. The educator creates conducive conditions in learning environment for the learners.

The group of Team Assisted Individualization is divided into 4-6 members. The students do the pre-test before the teacher makes heterogeneous group. The heterogeneous group consists of students which have high, intermediate, and low achievement. Furthermore, the teacher divides into homogeny group which consists of 4-6 members which have same level in their achievement. When students are in the homogeny group, the teacher can control them easily. This is individual program. That has a guided book. The students who have high achievement can study well by continuing their lesson with their capability while the teacher can focus on the students who have low achievement. Students are in the end of the individual program, the teacher explains about general material in order to avoid some misunderstanding. The students gather into heterogeneous group then they combine the individual score of their group. The excellent group will get a certificate.

Related to previous studies researchers have found some of the research thesis about cooperative learning classroom action research Team-Assisted

Individualization. Researcher found some previous research which related to classroom action research. There are some researches that support Team Assisted Individualization method to improve students' achievement. Based on previous research that had been done by M.Ali Ridlo S., with the title "Penerapan Model kooperatif TAI (Team-Assisted Individualization) untuk Meningkatkan Aktivitas dan Hasil Belajar Siswa pada Mata Pelajaran IPS Kelas IV SDN Purwantoro 2 Kota Malang".[4] Applying the research is on social science. The research applies TAI (Team assisted Individualization) method to improve the activity and students' achievement.

Other previous research had been done by Wahyuningtyas Triadi Pamungkas with the title "Penerapan Model Pembelajaran Kooperatif TAI (Team-Assisted Individualization untuk Meningkatkan Aktivitas dan Hasil Belajar IPS Siswa Kelas III A SDN Tamanharjo 01 Singosari Malang ".[5] The research conducts TAI to improve the activity and students' achievement on social science. This method implement in the third grade at Elementary School.

Based on previous studies above, the differences classroom action research TAI method on science with subject matter of human digestive system related to food and health. Therefore, the researcher does a classroom action research to implement TAI method to improve 5th grade students' achievement on science at MI Miftahul Ulum Malang.

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[4] M.Ali Ridlo S, *Penerapan model kooperatif TAI (Team-Assisted Individualization) untuk Meningkatkan Aktivitas dan Hasil Belajar Siswa pada Mata Pelajaran IPS Kelas IV SDN Purwantoro 2 Kota Malang*, (Malang: Perpus UM).

[5] Wahyuningtyas Triadi Pamungkas, *Penerapan Model Pembelajaran Kooperatif TAI (Team-Assisted Individualization untuk Meningkatkan Aktivitas dan Hasil Belajar IPS Siswa Kelas III A SDN Tamanharjo 01 Singosari Malang,* (Malang: Perpus UM).

The researcher will improve the student achievement in the learning process by using Team assisted Individualization method on science. The students who have high or low achievement should help each other in getting their best achievement. The important learning process is by guiding the individual program for the homogeneous groups. There will be an appreciation for group who gets high score in the end of the learning process. The appreciation group hopefully can motivate the students in their activity.

Based on the background above, the researcher is interested in research "Teams-Assisted Individualization" on science. The researcher will apply at MI Miftahul Ulum Singosari Malang. So the research title is "The Application of Team assisted Individualization Method to Improve 5th Grade Students' Achievement on science at MI Miftahul Ulum Singosari Malang".

B. Focus of the Study

Based on the background of the problems above, the focuses of the study can be formulated as follows:

1. How the instruction planning of TAI (Team-Assisted Individualization) method is implemented to improve 5th grade students' achievement on science at MI Miftahul Ulum Singosari Malang?

2. How the learning process of TAI (Team-Assisted Individualization) method is implemented to improve 5th grade students' achievement on science at MI Miftahul Ulum Singosari Malang?

3. How the instruction assessment of TAI (Team-Assisted Individualization) method is implemented to improve 5th grade students' achievement on science at MI Miftahul Ulum Singosari Malang?

C. **Objectives of the Study**

Based on the focus of the study, the objectives of the study that should be achieved are:

1. Describing the instruction planning of TAI (Team-Assisted Individualization) method is implemented to improve 5th grade students' achievement on science at MI Miftahul Ulum Singosari Malang.

2. Describing the learning process of TAI (Team-Assisted Individualization) method is implemented to improve 5th grade students' achievement on science at MI Miftahul Ulum Singosari Malang

3. Describing the instruction assessment of TAI (Team-Assisted Individualization) method is implemented to improve 5th grade students' achievement on science at MI Miftahul Ulum Singosari Malang.

D. **Significance of the Study**

Learning improvement is expected to be advantages for all parties concerned with education, particularly students, teachers, schools and next researchers. The advantages of this research are:

1. For Students

a. This classroom action research hopefully will improve the student's comprehension in order to learning achievement about digestive system related to food and healthy well.

b. Students will be more active and creative in their learning process.

c. It will motivate the students in learning process through Team-Assisted Individualization

d. Students will be more interested and encouraged in learning process, so students can involve actively in their class. Thus the achievement of their study will be improved too.

2. For Teachers

a. This classroom action research hopefully will give the teacher understanding about this method.

b. The teacher may choose what the appropriate method for their learning process is.

c. The research hopefully will develop the teachers' professionalism.

3. For Schools

a. The implementation of this classroom action research hopefully will improve the quality of education in creating the school quality.

b. As the recommendation for the school that may be considering about implementation of method above, so the teaching and learning process can be more effective and efficiently.

c. The school will do the implementation of curriculum and learning process.

4. For next Research

a. The implementation of this classroom action research hopefully will acquire some new knowledge's and research input material in future.

b. This research encourages the next researcher in learning more about the science.

c. This can be as the references teaching science and effective method selection.

E. **Limitation of the Study**

This classroom action research has limitation:

1. The Classroom action research is conducted on science 5th grade in learning process at MI Miftahul Ulum Singosari Malang in the first semester of 2012/2013.

2. The research is implicated of TAI method on science basic competence of digestive system related to food and health.

3. This research improves the student achievement on natural science.

4. These results of research can only apply in certain research place.

It cannot conclude in other subject, student, grade, and the other school which have different characteristic.

F. **Key Term of the Study**

The term of study avoids confusion, misinterpretation and ambiguity of terms in the research. It needs confirmation on understanding the following terms:

1. Team Assisted Individualization combines of cooperative learning and individualized program instruction. This method uses small group which consists of four to six member group and heterogeneous academic capability.

2. Student achievement is the achievement of learning outcomes which is expressed in terms of score after the learning process.

G. Systematic of the Research

The discussion based on design clearly and regularly. The problem is conveyed well organized. The systematic research of the study was as follows:

Chapter 1 : Introduction, this part describes general about the research. In general that explains about background of the study, focus of the study, objectives of the study, significance of the study, limitation of the study, key term of the study, and systematic of the research.

Chapter II : Review of Related Literature describes about theory and conceptual of team-assisted individualization method, students' achievement and science and teaching learning.

Chapter III : Research Method explains about the approach and design of classroom research, the site of research, the attendance of researchers, the instrument of research, the source of data, the technique of collection data, the cycles of classroom research, data analysis, and checking the validity of data.

Chapter IV : Research Findings that describes about the data and findings which achieved from research object related to background of MI Miftahul Ulum Singosari Malang and the application of Team-Assisted Individualization (TAI) method to improve 5th grade students' achievement on science.

Chapter V : Discussion that describes the findings of research which content are about the plan, implementation, and assessment the application of Team-Assisted Individualization (TAI) method to improve 5th grade students' achievement on science.

Chapter VI : Conclusion and Suggestions the content are about the conclusion and suggestion toward the discussion of data which have analyzed.
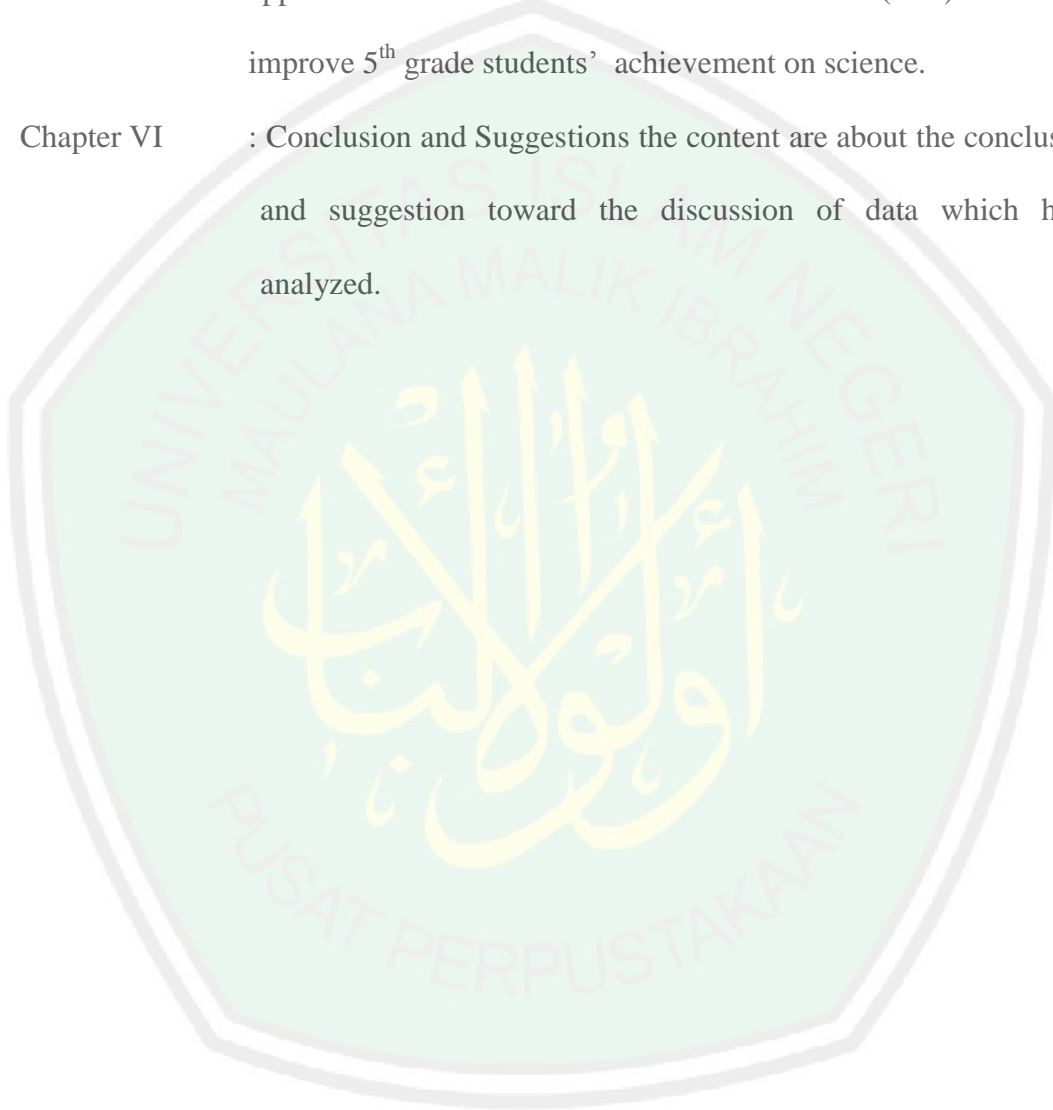
CHAPTER II

REVIEW OF RELATED LITERATURE

A. TAI (Team Assisted Individualization) Method

Learning TAI (Team Assisted Individualization) method includes in cooperative learning. TAI combines cooperative learning and individual program. This method is used in the class because the class consists of different student. Students are in small groups (4 to 5 students) heterogeneous. The students complete tasks from the teacher. Heterogeneity group includes gender, race, religion, the level of ability (high, medium/intermediate, low), and so forth.

TAI increases motivation and supports classmates in cooperative group. In individual program students chance to start these materials based on their selves.[6] Teacher teaches individuals and small groups that are homogeneous. Students encourage each other to understand the material quickly.[7]

The problem of teaching is spending time on management class. When the teacher uses cooperative learning and individual program, the teacher involves the function of management (assessing the answers, exploring the materials, keep records, do the new job) to the students themselves.

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[6] Shlomo Sharan, *Handbook of Cooperative Learning* (Yogyakarta: Imerium , 1999), p. 29
[7] Ibid p. 29

TAI is designed to solve problems of individual teaching[8]:

1. Minimizing the involvement of teachers in the examination and routine management.

2. The teacher will at least spend the time to teach small groups.

3. Operational program would be so simple that is done by the students

4. The students will be motivated to learn the material that was provided quickly and accurately, and not be able to cheat or find shortcuts.

5. The students will be able to check each other, even when students are checking the students' abilities in a series on the checks. The checks will be quite simple procedure.

6. Students are inexpensive, flexible, and not require an additional teacher or team.

7. Making students work in cooperative groups.

8. The program will establish the conditions for the formation of positive attitudes

The main element of the TAI[9]:

1. Group

Students put into groups who consist of four to five students. Each group consists of students who are high, medium, and low student achievement, men and women, and students from ethnic groups that exist in the class.

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[8]Robert E. Slavin dan Nancy A. Madden, *Cooperative Learning (Teori, riset, danpraktik)*, (Bandung: Nusa Media, 2005), p.195
[9]Shlomo Sharan, op.cit, p 31

2. Placement test

Students were given a placement test at the beginning of program. They were placed in the individual programs based on their achievement on the placement test.

3. Curriculum materials

The students in their group work curriculum materials. Problem emphasized in all material is given. Unit-lesson is available in guided book. Each unit consists of:

The first page reviews the lessons from the teacher. Two series of ten items, formative tests A and B, parallel with a test unit which has fifteen items. Answer sheets for the page exercises formative tests in the behind student's book and the answers the test unit is in a separate "control book").

4. Teaching groups

Every day teacher gives lessons to small groups from heterogeneous groups with the same abilities. Teacher uses the concept of specific lessons that are provided as part of that program. The purpose of this session introduces the main concepts to students. Teacher utilizes experimental and images. The lesson was designed help student' understanding. They do with real life issues that often they meet. While teacher teaches one group, other students continue working on their self-teaching units in their groups. Teaching them independent is in their groups. Direct instruction is in group

teaching because students are required to walk responsible for all checks of material[10].

After the placement test, students are given a starting place to begin a series of units of natural science. They work in groups by following these steps:

1. Students put their units in their books and read the book, ask a friend or teacher for helping if it is needed. Then, the students begin to practice their capability first in their unit.

2. Each student first work on four problems in sheet exercises their capability. Then students ask a friend in group to answer on the answer sheet that is placed behind each student's book. If all four correct answers, students should try four other problems. The student can answer correctly the fourth problem. If they have difficulty in this stage, students are encouraged to ask a group before asking the teacher for helping.

3. If students are working on all four on the last sheet, they continue formative test, a quiz with ten items that resemble pieces last skill. Students take the test itself. A friend gives a score for the group's formative tests. If students successfully complete eight or more problems correctly, the friend sign the student worksheet to indicate that the student finish to work on the test unit. If the correct answer is less than eight students, teachers were asked to provide feedback on any problems of student. Students will work on

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[10] Ibid p 32

Formative Test B, a second test with ten items that the content and difficulty can be compared with the test Formative A.[11]

4. When students have completed Formative Test A or B, they hand sheet of test to a student supervisor of the different groups to get the proper unit tests. Then, students complete the test unit, advisor gives value. Two different students act as a supervisor each day. If students successfully work on at least two items correctly (out of fifteen), the advisor gives a score on sheet summary of the student group. Otherwise, the test is given to the teachers who approach students to correct the problem students. When the students expert of the skills of sheet and formative tests, so they seldom fail the test[12].

5. Score Group and Group Awards

At the end of each week, teacher keeps score group. This score bases on the average unit by each member of the group. High criteria are "super group", the medium is the "great group" and the criteria for the lowest are "the good". The super group gets exciting certified.

6. Test Subject

Twice in a week, students are given a specific test for three minutes. Students are given a sheet of subjects to be studied at home to prepare for the test.

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[11] Ibid p 33
[12] Ibid p 34

7. Whole-Class Unit

Once every three meetings, teachers' individual programs stop and take a week to teach the whole class and master the skills of everyday problems. Students work together as a large group to work on the unit.

The steps of Team Assisted Individualization:

1. The teacher divides groups which consist of four to five students. The group is heterogeneous. Each group consists of students who are high, medium, and low student achievement, men and women. The group is called heterogeneous group.

2. The teacher gives a placement test at the beginning of program. The students were placed in the individualized programs based on their achievement on the placement test.

3. The teacher divides homogeneous group. Every group consists of students who have same academic capability.

4. The teacher prepares the guided book. Every student gets the guided book. The guided book consists of reviewing material from teacher. There are two items with four problems, ten item formative A, two items with four problems which is different with the first four problems, and ten item formative B.

5. The teacher chooses one student who is as supervisor of each group.

6. The students do the first from four problems. If all member of group finished, the teacher will give key answer to supervisor for checking the answer of members' group.

7. The teacher controls of the homogeneous group which is consist of students who have low students' achievement.

8. The teacher will help to solve the problems of individual when the student faces difficult material.

9. Teacher gives lessons to small groups from heterogeneous groups with the same abilities.

10. Teacher utilizes experimental and images. The lesson was designed help student' understanding.

11. The students do with real life issues that often they meet. While teacher teaches one group, other students continue working on their self-teaching units in their groups. Teaching them independent is in their groups.

12. Direct instruction is in group teaching because students are required to conduct responsible for all checks of material

13. At the end of each week, teacher keeps score group. This score bases on the average unit by each member of the group. High criteria are "super group", the medium is the "great group" and the criteria for the lowest are "the good". The super group gets exciting certified.

14. Teachers' individual programs stop and take a week to teach the whole class and master the skills of everyday problems.

B. Students' Achievement

Some experts agree that the 'achievement' is the result of an activity. The result is a result that has the size or value. The understanding of learning according to the experts is[13]:

a. Hitzman cited at Muhibbin's book suggested that learning is a change in organism due to experience which can affect the organism's behavior.

b. Chaplin cited at Muhibbin's book suggested that learning is the acquisition of any relatively permanent change in behavior as a result of practice and experience.

c. Barlow cited at Muhibbin's book suggested that the change had occurred in the field of cognitive, affective, and psychomotor. While the nature of the changes that occur in these fields depends on the learning experienced.

d. Skinner cited at Barlow's book suggested that learning is a process of progressive behavior adaptation.

e. Wittig cited at his book "Psychology of learning" said that learning is any relatively permanent change in an organism's behavioral repertoire that occurs as a result of experience.

Learning refers to change in behavior, changes which are attributable to a set of antecedent conditions categorized as experience and training rather than to processes such a maturation, growth, physiology, perception,

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[13]Muhibbin Syah, *Psikologi Pendidikan dengan Pendekatan Baru* (Bandung: PT Remaja Rosda Karya, 2008), pp. 90

or motivation. In addition, the changes in performance than transitory, they persist for some time, if only for a few minutes.[14]

Thus it can be concluded that the word achievement in essentially the result obtained from the activity. While learning is the result in the form of impressions that result of changing is in changing of behavior. So achievement is the result of impressions that is changing of the individual as a result of learning activities.

Various kinds of achievement can be interpreted as the level of student success in learning. The level of student success is as indicated by the level of achievement. According Muhibbin Shah in his psychology study noted: "In principle, the development of learning outcomes includes the psychological domain that has changed as a result of experience and learning process".[15]

Thus, the learning achievement is three kinds of achievements including:

a. Cognitive achievement (created domain)

Cognitive achievement is observation, memory, comprehension, application or implementation, analysis (thorough examination and assessment), synthesis (making new alloys and intact).

[14] Suharsimi Arikunto, *Manajemen Pengajaran secara Manusiawi* (Jakarta: PT. Rineka Cipta), p.22

[15] Muhibbin Syah, *Psikologi Pendidikan dengan Pendekata Baru* (Bandung: PT Remaja Rosda Karya, 2008), pp. 151-152

b. Affective achievement (feeling domain)

Affective achievement includes reception, welcome, appreciation (respect), internalization (deepening), characterization (appreciation). For example, a student may indicate acceptance or decline of a statement of the problem. Students may indicate an attitude to participate in learning that is considered good and others.

c. Psychomotor achievement (Karsa domain)

Achievement psychomotor are moving and acting skills, verbal skills and non-verbal expression. For example, students receive a lesson in manners courtesy to parents. Then the child is applying lessons in daily life.

2. Affect Factors Learning Achievement

Student achievement is influenced by many different factors. The factors are from within themselves (internal) or from outside (external). Learning achievement of students is the result of the interaction between the various factors. Therefore it can affect student achievement. The factors that affect academic achievement are:

a. Internal factors are factors that come from the student, these factors include:

   1) Physiological factors

      a) Physical condition which usually affects the physical condition of a person's life.

b) Feeling

Psychological factors will greatly affect student achievement. While the influences of these factors are:

a) Intelligence is the ability to adapt new needs, using the tools of thinking in accordance purpose.

b) Interest affects the achievement of learning outcomes in a particular subject.

c) Talent is kind of feeling and worldly equipped with the talent one method of thinking.

d) Motivation is something or someone that is characterized by personal encouragement and effective reactions to accomplish goals.

e) Attitude is the internal aspect of affective symptoms such as a tendency to react and respond in a way that is relatively fixed to the object of people, goods, and so on, either positive or negative.[16]

b. External factors are factors that come from outside the student, including:

1) Social environmental factors

Social factors related to the relationship between humans and social situations. Social environments are school teachers, administrative staff, and classmates which can affect a student's enthusiasm for learning.[17]

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[16]Muhibbin Syah, *op.cit* p. 133-136
[17] Ibid, p.137

2) Non-social environmental factors

Environmental factors are not as social as non-social environment. It is such as buildings, schools and its location, the family residence and located the student, learning tools, and learning time.[18]

3) Factors learning approach

Learning approach can be understood as any method or strategy used by students to support their effectiveness and learning efficient. Some things for increasing achievement include:

a. Constitution

Achievement good learning outcomes require physical sense, because learning requires effort, when in of physical pain, lack of nutrition, lack of rest cannot learn effectively.

b. Social Emotional

Students have a strong emotional shock, or the pressure of the soul. When the student is bad mute, she cannot learn effectively. The condition is effect concentration of the mind, desire and emotions.

c. The environment

The environment should be a quiet place to study. The environment is not influence by the stimulus from the outside, because it is necessary to study the concentration. Prior learning must be provided enough material and tools and everything necessary.

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[18] Ibid, p. 138

d. Starting lessons

Starting the lesson should be right on times, when feeling reluctance overcomes with a commitment to start lessons on time.

e. Dividing the work

While learning all of the attention and effort devotes a task that is typical the task too heavy finished. It starts the first lesson determined that can be completed in a certain time.

f. Fertilizer optimistic attitude

Positive thinking and spirit will increase performance. Students must do perfect, because a good job encourages enthusiasm atmosphere.

C. Science Teaching and Learning

The word of science is from Latin 'scientia'. It means that I know. According to H.W Fowler cited at Triantos' book suggested that science is systematic knowledge which related to physical phenomenon, and based on observation and deduction.[19]

Science mentions Permendiknas, it explains that the "knowledge related to find out about the systematic nature". Science is a theory of knowledge acquired/organized in a way that is unique, special observation, experimentation, inference, theory development and so between the way the other way.

Science is studies the events that occur in nature are formulated in ways specifically related to the symptoms of related material between the way the other

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[19] Trianto, *Model Pembelajaran Terpadu Konsep,* (Jakarta: PT Bumi Aksara, 2010), p. 136

way. The science product examples include facts, concepts, principles and laws and theories about natural phenomena.

Science essentially covers four main elements are: the first, the attitude is curiosity about objects, natural phenomena, living beings and causality that creates new problems that can be solved through the correct procedure and the second is process. The procedure of solving problems through methods scientific includes the preparation of the hypothesis, design of experiments or trials, evaluation, and inference. The third is the product. The products are form of facts, principles, theories and laws; fourth, the application. The application is the application of scientific methods and concepts of science in everyday life. The fourth element is characteristic science that fact cannot be separated from one another.[20]

Science is needed in daily life to meet human needs through solving the problems that can be identified. The application of science needs to be done judiciously, so it affects the environment. At the level of Elementary school is expected that the emphasis of learning (Science, environment, technology, and society) are directed at the experience of learning to design and create a work through the application of science concepts and scientific competence.[21]

Learning science should be taken of scientific inquiry to develop the ability, to think, to work and to communicate scientific as well as being an important aspect of life skills. Therefore, learning science in Elementary school

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[20]Trianto, *Model Pembelajaran Terpadu dalam Teori dan Praktek* (Jakarta: Prestasi Pustaka, 2007), p. 100

[21]E.Mulyasa, *Implementasi Kurikulum Tingkat Satuan Pendidikan*, Bandung: PT. Remaja Rosdakarya, 2006, p.110

emphasizes providing direct learning experience through the use and development of process skills and scientific attitudes.

Science lessons in Elementary school makes learners have the following capabilities[22].

a. Gaining confidence in the greatness of God Almighty based on the presence, beauty and order of creation's His

b. Developing knowledge and understanding of science concepts useful and can be applied in everyday life.

c. Developing a curiosity, a positive attitude and awareness about the relationship interplay between science environment, technology and society.

d. Developing the skills to investigate the nature around, solve problems and make decisions.

e. Raising awareness to play a role in maintaining protecting and preserving the natural environment.

f. Raising awareness to appreciate nature and all regularity as one of God's creation.

g. Acquiring sufficient knowledge, concepts, and skills of science as the basis for continuing education to Junior High School.

Science teaching and learning activities implement for science learning goals. Studying nature avoid teachers in teaching science for using oriented

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[22]Depdiknas.2006, *Standar Kompetensi dan Kompetensi Dasar Tingkat SD/MI (KTSP)* (Jakarta: Depdiknas KKPS Kabupaten Malang), p. 203

books. Science learning should encourage students to do a variety of activities observing, classifying, formulating hypotheses, predicting, using tools, experiment, communicate, and concluded the various materials science learning. The selection and implementation strategies are very important in learning science efforts to achieve the goals of learning science.

The subject of Science in Elementary School includes the following standards[23]:

1. Human being and process of life, such as human, animal, plant, and the interaction with the environment and also about health.

2. Non-living thing, property and the useful of liquid, solid, and gas.

3. Energy and its changing involve force, sound, light, and so forth.

4. Earth and nature involve soil, earth, galaxy, and so forth.

Table 2.1. Competence Standard and Basic Competence of digestive system

Competence Standard	Basic Competence
1. Identifying function of body of human and animal	1.3 Identify function of digestive system and its body with food and health

This research will conduct team assisted individualization method in science. The basic competence in science fifth grade is about digestive system and food.

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[23]E.Mulyasa, *Implementasi Kurikulum Tingkat Satuan Pendidikan* (Bandung: PT. Remaja Rosdakarya, 2006), p.112

CHAPTER III

RESEARCH METHOD

A. The Research Design

This research conducts the classroom action research. Action research is systematic observation or test of methods which is conducted by teacher or school to improve teaching and learning for their students.[24]

This Classroom Action Research is a research which is done by teachers in collaboration with researcher or the other teacher. The other teacher acts as a researcher in the classroom. The teacher teaches the improvement of learning processes.[25]

Research uses the descriptive approach by qualitative method through direct observation of a single case. The researcher must get quite close to the subjects.[26]Descriptive research is research which employs systematic observation and recorder of data without manipulation of the observed phenomenon.[27] A descriptive qualitative method uses words or sentences in explaining the concept. While descriptive quantitative method uses number in explaining interrelationship of a concept.

According to Bogdan and Taylon Moleong cited Lexys' book suggested that qualitative research is a research procedure that produces

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[24] Anita Woolfolk., Educational Psychology, (Pearson: Allyn & Bacon, 2005), p. 14

[25]Suharsini Arikunto, dkk, *Penelitian Tindakan Kelas* (Jakarta; PT Bumi Aksara 2007), p.57

[26] Richard I.arends. Learning To Teach, New York: Mc Graw Hill, 2007, p. 511

[27] Richard, et all, Educational Psychology(Wadswoth:Thomson Learning, 2001), p. 16

descriptive data in the form of written or spoken words of the people and behaviors that can be observed.[28]

B. The Site of Research

The research was conducted at MI Miftahul Ulum Singosari. This school locates at Masjid Baturetno street number 03, Singosari, Malang. The headmaster is Abdul Rokhim, SPDI. This research is in fifth class. The teacher in fifth grade is Siti Khofifah, SPDI. The amount of students is 27 students. The researcher chooses this class based on considering as follow:

1. The fifth class is heterogeneous students of academic capability and gender.

2. The school never conducts team assisted individualization method in the teaching and learning.

C. The Attendance of Research

The attendance of researcher is as the main instrument of data collection. Data collection is conducted by the researcher herself. Researcher is going to interview subjects who have been determined and observe the teaching and learning activities. Other instrument beside the researcher is also can be used such as picture, document, and result of interview.

Status of the researcher is complete participant who observes and conducts the research. "In participant observation, the researcher observes what people do, listen to what they say and participate in their activity"[29].

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[28]Lexy J. Moleong, *Metodologi Penelitian Kualitatif* (Bandung: PT. Remaja Rosdakarya, 2005), p.46

[29]Sugiyono, *Metode Penelitian Kuantitatif Kualitatif dan R&D* (Bandung: Alfabeta, 2011), p. 227

The researcher starts the research in May, 22nd 2012. The researcher observes the school before conducting the research in MI Miftahul Ulum Singosari Malang. The researcher gives permission to the headmaster. Then, the researcher interviews the teacher on science.

Based on this explanation, the researcher is a natural participant. In collecting data, the researcher involves in what the informant do. Thus the situation is natural. The researcher doesn't look like doing research.

D. The Instrument of Research

This research collects data about Team-Assisted Individualization method using instrument:

1. Teaching and planning set which is supported in appendix as follows:

    a. Lesson plan, the lesson plan is direction the teacher in the learning process which consists of standard competence, basic competence, indicator, steps of learning process, and the assessment. After that the researcher consuls to the teacher to make it clearly.

    b. Guided book includes point of students' achievement and learning material.

2. Paper of observation is used to collect data about implementation Team-Assisted Individualization method on science.

    a. This instrument activities of teacher who is used team assisted individualization in the learning process by the teacher.

Table 3.1 Paper of teacher observation of the learning process uses Team

Assisted Individualization.

No.	The aspects is observed	Score			
		1	2	3	4
1.	Introduction 1.The teacher conveys the learning purpose. 2.The teacher encourages the students to conduct the science learning with some questions related to their primary experience.				
2.	Learning activities a. The teacher divides heterogeneous group which consist of five to six students. b. The teacher gives a placement test at the beginning of program. c. The teacher divides homogeneous group which consist of students who have same academic capability. d. The teacher prepares the guided book. e. The teacher chooses one student who is as supervisor of each group. f. The teacher controls of the homogeneous group. g. The teacher helps of individual when the student faces difficult material. h. Teacher keeps score group. This score bases on the average unit by each member of the group. i. Teacher teaches the whole class and masters the skills of everyday problems. j. The teacher gives conclusion of the material.				
3.	The teacher manages time efficiently learning process.				
4.	Good performance from the teacher				
5.	Enthusiasm the teacher is in the learning process.				

Note:

1 = less   3 = good enough
2 = enough   4 = very good

b. This instrument consist activities of students use team assisted

individualization in the learning process.

Table 3.2 Paper observation activities of students

Variables	Indicator	Score											
		Pre test				Cycle I				Cycle II			
		4	3	2	1	4	3	2	1	4	3	2	1
Enthusiasm	1. Showing the desire in the lesson 2. Enthusiasm doing the task 3. Doing the task in time 4.Pay attention to the teacher												
Cooperation	1.Helping the other friends 2.Active participation												
Creativities	1.Answering the question from the teacher 2.Asking difficult question.												

Note:

1. = less
2. = enough

3 = good enough
4 = very good

c. Questioner of the students after conducting learning process is

supported in appendix

3. Paper of interviewed consists of the question will be asked to science

teacher and students which supported in appendix.

4. Appendix consists of everything which happens in the research.

D. The Source of Data

Sources of data in this research are the subject where it can be obtained.

Some data resources include interview headmaster, teacher, students, scoring

document of fifth grade students' achievement, data of the school, and some photo. Sources data from this research as follows:

1. The interviewed data is obtained from the informant.

No.	Informant	Position
1.	Mr. Rokhim	headmaster
2.	Mrs.Ifa	science teacher
3.	Students in the fifth grades	students

2. Condition and situation in the fifth grade class which is expressed by researcher into words or text narrative.

3. Activities of the science teacher and students are in the learning process.

4. Scoring of students on science and photo in the learning activities from the science teacher.

5. Data of infrastructure the school in MI Miftahul Ulum Singosari Malang is supported in appendix.

E. Technique of Data Collection

This research uses technique of data collection such as interviewed, observation, and documentation method.

1. Interviewed method

Interview is conducted to obtain the data from science teacher and the fifth grade students. Interviewed is useful in the following situations[30]:

a. Establishing rapport and closeness while collecting data

b. Probing into student's subjective states about the class

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[30] Richard A. Schmuck, Practical Action Research for Change (America: Sky Light Training and Publishing, 1997), p. 53

c. Obtaining information from students who cannot easily write about their thoughts and feelings

d. Using students' remarks to stimulate oral contributions from other students.

The best uses interviews during informal times (before class, in passing, at lunch, or after school) or during relaxed times with everyone in the class.

2. Observation method

This method involves attentively watching and systematically recording what is seen and heard in the MI Miftahul Ulum Singosari Malang especially in the fifth grade class. The researcher active participates directly in activities of informant. There is class observation directly so the researcher obtains the data from situation and condition in the learning activity. Observations are useful such as:[31]

a. Checking for nonverbal expressions of students' feelings,

b. Checking for how much time particular students spend on particular tasks, and

c. Understanding how a teacher communicates with students with different characteristics at different times.

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[31] Ibid, p. 54

2. Document method

Documentation method is to analyze the documents for recurring themes and for multiple meanings. Data are unaffected by the data collector's presence. Historical events can be studied objectively.[32]

In this research, the researcher will take the documentation as much as possible. It can be in form of photos, teaching planning, record of students' achievement, profile of school, and so forth.

3. Assessment of students' achievement

The data which is obtained in the field will be organized by researcher such as paper observation of students' activities, the result of students' achievement, and questioners.

F. Data Analysis

Data analysis is used to analyze the data depends on the research problems. Qualitative research about understands the problems of social life based on the reality of a holistic or natural setting, complex and detailed. These are generally presented data analysis techniques in research.[33]

The first tangible data is appeared the words and not a series of numbers in the learning process. The data may have been collected in a variety of ways such as observations, interviews, and documents. A qualitative analysis continues to arrange the words into a text. Three of activities are reduction of the data, the presentation of data, and conclusion.

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[32] Ibid, p.56

[33]Rahardjo Mudjia, *Paradigma dan Langkah Penelitian* (Makalah disajikan dalam Kuliah Metodelogi Penelitian, 2008)

1. Analysis of data pre research

The analysis data before research is can be obtained by interviewed the teacher and the headmaster. The researcher analyzes the words of interviewed. The researcher looks at the situation and condition of the school at MI Miftahul Ulum Singosari Malang. Everything the researcher sees, all of data which is heard and seen by the researcher can be data of observation. In this research, the researcher analyzes the data of scoring document from the teacher.

2. Analysis of data the research

Three activities of analysis of data are data reduction, data display, and conclusion drawing/verification.

> Data collection => data reduction => data display => conclusion

a. Data reduction is the process of selection, simplification, and transformation of data from written records on the field. During the data collection, the reduction occurs, after that making a summary. Data reduction or transformation process continued after field research for completing a final report is made. [34]

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[34]Wahimurni,*Beberapa Catatan tentang Pendekatan Penelitian Kualitatif dan Kuantitatif,* (Makalah disajikan dalam acara Sosialisasi Tehknik Penulisan Proposal Skripsi Bagi Mahasiswa Program Studi PGMI Fakultas Tarbiyah UIN Maliki Malang), pada tanggal 12 Mei 2012

b. Data display

The presentation of the data is a collection of information. It can make conclusion. Researcher can analyze next action. Data display of this research is the narrative text and table.

c. Conclusion

The conclusion is done when the data has been collected. Researcher makes data reduction, the presentation of the data, and conclusion based on the data.

G. Checking Validity of Data

The researcher uses technique the validity of data. The checking validity of data means triangulation and friend peers through discussion.

1. Triangulation is a technique to checks the validity of data tap something else outside data by contrast of data.[35] Denzin cited Lexys' book suggested that four triangulations as an inspection technique that utilizes the using of sources, methods, investigators, and theories[36].

   a. Triangulation with sources can be done such as interviews, other people's words, and the document.

      1) Comparing data of observation with data of interviewed

      2) Comparing everything people said the words generally with especially

      3) Comparing data of interviewed with the document

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[35] Lexy J Moleong, *Metodologi Penelitian Kualitatif* (Bandung: PT. Remaja Rosda karya, 2005), p. 330
[36] Ibid, p.330

b. Triangulation with the methods can be done such as data and data resources.

c. Triangulation with theories can be done such as theory other related subject matter.

2. Examination peers through discussion is checking validity of data for reviewing perception researcher. The researcher consuls with the advisor. The advisor is the lecturer in the university and the science teacher. The function of this discussion are:

a. Making the researcher to be honest and fair in this research.

b. Preparing next steps of the research.

c. Improving the knowledge in the research to obtain the best data and encouraging the researcher in conducting the research.

H. The Cycles of Classroom Action Research

This classroom action research will conduct in two cycles. Each cycle consists of two meeting. There are four main activities of this research such as: (1) planning (2) acting (3) observing (4) reflecting.

There are the cycles of classroom action research which is used to develop by Kemmis dan Mc Taggart suggested with the picture below[37]:

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[37] Robin Mc. Taggart, *Action Research A Short Modern History* (Australia: Deakin University, 1991), p. 32

Picture 3.1 The cycle of classroom action research
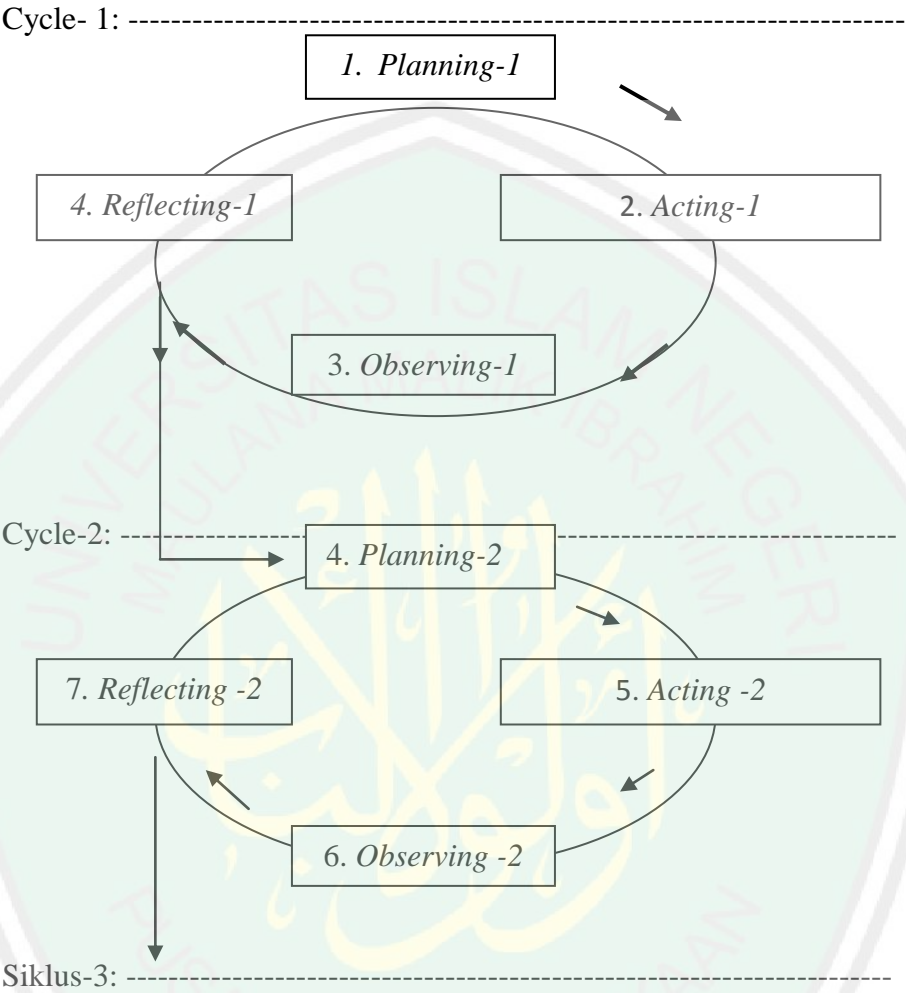
Cycle- 1: ---

The cycle model above shows cycle of classroom action research. It consists of planning, acting observing, and reflecting. In this study the activity of classroom action research can be described as follows:

1. **The first cycle**

    a. Observing

        1) The researcher looks for the problem of science learning in interviewing with the science teacher and collects the scoring

document from the science teacher in fifth grade at MI Miftahul Ulum Singosari Malang.

2) The researcher observes the situation and condition in the learning process.

b. Implementing

1) Planning of the first cycle

This planning hopefully can improve students' achievement in implementing team assisted individualization. Planning stage, researcher does previous study with reflection on science 5th grade MI Miftahul Ulum Singosari Malang. Researcher interviews the teacher, student, and environment to understand the problems. In this case planning stage is:

a) Making the Lesson Plan,

b) Preparing tools which is needed, paper student worksheet, and guided book of team assisted individualization method.

c) Preparing competence test,

d) Preparing instrument collect data.

e) Preparing paper of observation

2) Acting of the first cycle

This stage researcher does learning based on lesson plan which is arranged before. The researcher records the learning process, activities and creativities of student, student achievement and some events which become focus of the study.

3) Observing of the first cycle

The observing is conduct during teaching and learning process. The researcher collects the data all of phenomenon which happen in that situation. The researcher has to note everything which is heard and seen by the researcher.

4) Reflecting of the first cycle

Based on observation, researcher does reflecting to evaluate and determine next activity to improve the problem which does not solves yet which will do second cycles. Reflecting is:

a) Analysis learning process which is done,

b) Criticize the differences of planning and doing,

c) Describing the problem which is happened.

The result of cycle 1 becomes the basic planning to improve the cycle 2. This step reflects all of phenomenon which happens, so the researcher avoids the weakness of cycle 2. The researcher consults with the science teacher, because however, the teacher is as main informant.

2. **The second cycle**

a. Planning of the second cycle

This planning is same with the planning of the first cycle, but this stage the researcher makes some planning to improve the research. Based on the reflecting the first cycle, the researcher makes revision of the planning. In this stage plans the indicator which is achieved in the

first cycle. The planning should be consulted by the teacher because the teacher who conduct the classroom action research.

b. Acting of the second cycle

The teacher does what is achieved yet. This cycle solves the problem of the first cycle. This cycle makes perfect to improve first cycle. This action is done in accordance with the new planning which formulated before so that get optimal result in accordance with the goal.

c. Observing of the second cycle

The researcher records the condition carefully. Based on the planning in second cycle, the researcher fills the paper observation to observe easily. The researcher should be observed well because this is the last observation and data collection of the research.

d. Reflecting of the second cycle

The researcher discusses with the teacher to reflect which happen in the learning process. The researcher determines the indicator of success research. The research will be stopped if the average score all of students are 70% success. The passing grade of individual is 70 from 100 score. If the indicator has not achieved, the researcher has to next research in the third cycle until the research can achieve the indicator which is determined before.

I. Achievement Criteria

The criteria of students' achievement can be observed from these following indicators:

1. The research will be stopped if the average score all of students are 70% success.

2. The passing grade of individual is 70 from 100 score.

3. If the indicator has not achieved, the researcher has to next research in the third cycle until the research can achieve the indicator which is determined before.

The number of students who have the above criteria is compared to the total of student in the class.

$$A = \frac{\sum HS}{\sum N} \times 100\%$$

A   = Students' achievement Percentage

$\sum$HS   = the number of students who achieved the criteria

$\sum$N   = the total of students in a class

The results can lead to be improvement, and changing from the previous situation, the researchers used the formula.[38]

$$\textbf{P} = \underline{\textit{post test} - \textit{pre test}} \text{ x 100\%}$$

$$\textit{Pre test}$$

Note:

P = Raising percentage

Post test = Average value after research

Pre test = Average value before research

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[38] Hamzah B.Uno, *Model Pembelajaran Menciptakan Proses Belajar Mengajar yang Kreatif dan Efektif* (Jakarta: PT. Bumi Aksara, 2007), p. 73

CHAPTER IV

RESEARCH FINDINGS

A. Description of the Research Area

1. Profile of The Object

The research was conducted classroom action research at MI Miftahul Ulum Malang. The school located at Masjid Baturetno street number 03. Pos code is 65153, district Singosari, Malang, East Java. The headmaster is Abdul Rokhim, SPd.I. Statistic number is 11123070212. This school allocated in village. The status of school is private school. The school exists at 1946. The school gets A accreditation in 2011. Teaching and learning activities has done in the morning. Status of school building is owned.

2. The Vision and Mission of MI Miftahul Ulum Singosari

   a. The Vision:

   The vision of school is "The formation of the next generation of qualified, knowledgeable, faithful and devoted and *akhlaqul karimah*".

   b. The Mission:

   The mission of school is for achieving the vision of the school, the mission of education in Islamic elementary schools are as follows:

1) Implying education leaning based on Ahlussunnah Wal Jama'ah

2) Implying learning activities and guiding effectively, meaningful, so student can develop optimally according to their potential.

3) Growing intensive nature seriously to the whole school community.

3. The Objective of MI Miftahul Ulum Singosari are:

1) Increasing faith and devotion to God Almighty.

2) Increasing religious activities and pursue the implementation in everyday life.

3) Developing skills in Arabic & English

4) Developing a positive behavior in everyday life.

5) Developing education-oriented life skills-based education approach outside of school.

6) Increasing activities that cultivate cultural of reading & writing

7) Implying active learning, creative, innovative, effective, and fun, so that students can achieve academic and non-academic achievements optimally.

8) Improving the completeness of facilities and infrastructure to support the learning process so that students feel at home in the school.

9) Implying quality control management schools so the school improves the interest of transparency and accountability of new students.

4. Facilities and Infrastructure

MI Miftahul Ulum Singosari has a land area of 414 meters, which consists of 11 rooms, such as 6 classrooms, 1 office room, 1 principal room, 1 library, 2 bathrooms, and 1 laboratory and UKS (unit of student's health) are being constructed.

5. The state Teacher

    Currently MI Miftahul Ulum Singosari has 11 teachers of teachers Permanent Foundation (GTY). There are two teacher's civil servants, and one teacher administrative staff.

6. State students

    MI Miftahul Ulum Singosari currently has 151 students. The first grade is 24 students. The second grade is 28 students. The third grade is 19 students. The fourth grade is 28 students. The fifth grade is 27 students. The sixth is 25 students. The boys are 83 students. The girls are 68 students.

A. Data Explanation

1. Data explanation pre-research

 a. The first observation

 1) Planning

    The researcher prepares some paper before conducting the observation as follows:

  a) Paper permission from the university to conduct the research.

  b) Making arrangement the planning of the research.

 2) Acting

    Science is studied three times a week. Every Monday, the lesson starts at 07.00-08.10 am. Wednesday starts at 08.10-09.20 am and Thursday starts at 10.50-11.25 am.

    The research starts on Monday, May 22nd, 2012. The researcher asks permission to the headmaster to conduct the research. Before the

researcher conducts the research, the researcher observes the school to recognize the situation and condition at MI Miftahul Ulum Singosari Malang. Actually, the researcher has recognized some teacher of the school, because the researcher ever observes last year. The headmaster allows the researcher to meet with the teacher. Some teachers recognize the researcher, so it makes easily to be closer with them.

The headmaster is Mr. Rokhim. He advises the researcher to conduct in the fifth class. The fifth class has many problems in the teaching and learning process. The researcher chooses science subject because the major in university. The science teacher is Mrs. Ifa. The researcher introduces herself and the aim of her arrival. The researcher interviewed the science teacher to find the information about science learning process in the classroom.

Peneliti	:	Bagaimana bu, jika saya meneliti kelas IPA yang ibu ajar?
Guru	:	Silahkan saja, mau penilitian kelas berapa?
Peneliti	:	Kelas berapa saja boleh bu, asalkan tidak menganggu pelajaran.
Guru	:	Kalau kelas 1-3 itu anaknya masih kecil-kecil, jadi akan lebih lama mengerti metode-metode baru. Kalau kelas 4, mereka masa transisi kebanyakan susah diaturnya. Bagaimana kalau meneliti kelas 5 saja? Untuk kelas 6 tidak boleh diganggu karena persiapan UASBN.
Peneliti	:	Iya bu, semester ini anak-anak materinya sampai apa ya bu?
Guru	:	Sekarang masih tentang pernapasan, berarti nanti penelitiannya bab berikutnya saja. Tapi, sebentar lagi puasa, jam pelajaran pasti dikurangi, apa kondusif jika dilakukan penelitian karena biasanya lebih banyak kegiatan ibadahnya daripada pelajaran.
Peneliti	:	Begitu ya bu! Kalau begitu, bolehkah saya mulai melakukan penelitian setelah lebaran, tapi beberapa waktu ini saya ingin observasi di kelas terlebih dahulu bu untuk mengetahui keadaan siswa ibu.

Guru	:Hari Senin kelas V pelajaran IPA-nya jam 1-2 jadi Rabu saja mereka mulai pelajaran IPA jam 08.10 pagi.
Peneliti	:Terima kasih bu atas waktunya dan kesediaannya untuk memberikan kesempatan saya melakukan penelitian tindakan kelas.
Guru	:Iya sama-sama, saya juga senang bisa saling bertukar informasi.[39]

Based on interviewed with the researcher didn't obtain the problems in science learning process. The teacher said that the learning process is good. When the researcher asked the teacher about scoring document of science fifth grade, the teacher didn't open scoring data of her students yet. The researcher continued the interviewed next time.

The other teacher is happy when the researcher will conduct the classroom action research. It related to duty of teacher makes classroom action research. The researcher looks at around situation and condition of school. All of the class use chalk and blackboard. Most of students live in village. The research observes in the fifth grade class with the science teacher.

3) Observing

At the first meeting held on Monday, researcher had the opportunity to teach fifth grade in science subjects with the material of the respiratory system in humans. Learning activity was conducted at the first lesson and the lesson of the 2nd hour is at 07.00 - 08.10 am.

Data of the first observation relates to the habits or routines of students. Based on observation in the fifth grade, the first activity of

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[39] Interview with Mrs. Siti Khofifah, S.Pd.I as the science teacher of fifth grade in MI Miftahul Ulum Singosari Malang at 06.30 am, May 22th, 2012

students before lesson prayed together which is led by chief of class. After that the students recite holy Qur'an. The fifth grade uses black board and chalk.

Some students are noisy when there is the researcher. At the first time, they look at enthusiastic although they still shy. This occurs because researcher and fifth grade students have not been too familiar. In addition, researcher has not been able to memorize all of students' names of the fifth grade. This is obstacle of communication between researcher and students. Table 4.1 the activities of students pre-research

Variables	Indicator	Score			
		Pre test			
		4	3	2	1
Enthusiasm	1. Showing the desire in the lesson			√	
	2. Enthusiasm doing the task				√
	3. Doing the task in time			√	
	4.Pay attention to the teacher				√
Cooperation	1.Helping the other friends			√	
	2.Active participation			√	
Creativities	1.Answering the question from the teacher			√	
	2.Asking difficult question.				√

Note:

1 = less 3 = good enough
2 = enough 4 = very good

Based on the above data, the atmosphere of learning activities, it can be said not conducive. Especially in the middle of the learning process, the students look at boring. The teacher uses students' book, but the teacher has made a worksheet that shows the image of the human body respiratory. Some students are boring when the teacher explains the material repeatly. The others students complain when the teacher too fast. The effect of this condition the students disturb the others. Teaching and learning process doesn't motivate the students. After learning process, the teacher asks the researcher some media in the teaching learning. The teacher advises the researcher to observe next Wednesday in science class.

4) Reflecting

The researcher evaluates the learning process based on the observation. The teacher centered is inappropriate implemented in science teaching and learning activity, because this approach can't improve student's activeness and creativity. The student is inactive in the learning process. This problems influence students' achievement. The teacher seldom gives the task to the students, so the students don't motivate to achieve good score. In the ending meeting, the teacher asks the planning of new method from the researcher. The planning of team assisted individualization will be consulted by the researcher to the teacher when the second observation.

b. The second observation

1) Planning

Based on the advising of the teacher before conducting the second observation, the researcher prepares some planning as follows:

a) Making design of teaching planning

b) Making design of guided book in the team assisted individualization method

c) Making paper of observation

d) Making reflection for correction to the next cycle.

e) Making the result of interviewed.

2) Acting and observing

Wednesday, May 24th, 2012 is at 11.30 am. The researcher waits science teacher in the teachers' room. The researcher discusses about the classroom action research. Some file of media in the teaching and learning process is given by researcher to the school. That is the effort from researcher to be closer with informant. The researcher creates natural situation. The research is conducted like does not doing the research.

This is the second meeting with the teacher but the researcher didn't enter the class. The researcher just interviews with the teacher.

The researcher shows the design pg teaching planning and the steps to conduct the method. The researcher agrees with that method. The teacher said that every method is good. Every method has

advantages and disadvantages. The teacher will not know if the method is conducted in the science teaching and learning yet. The researcher needs the scoring document for the teacher. The scoring document makes time efficiently. When the researcher knows the capability of students, the researcher can create the homogeny and heterogeneous group. The placement test can be done, but that spent time to list the student group.

The teacher said that the material at this time is about human respiration. The researcher can start the research next material about digestive system. Next material can conduct after Lebaran because in the Ramadan month, teaching and learning process decrease and change to religion. It will not conducive, if the researcher conducts the research.

The researcher didn't get scoring data. Finally, the researcher accompanies teachers' home. On the way to home, researcher talks with the teacher. Teacher begins to open about the problems in the classroom and the teacher finally she gives the book value and lesson plan to the researcher. The researcher gets the score of scoring document to be become a pre-test score in the placement test student.

Table 4.2 score of pre-research

No.	Name	Score of pre-test
1.	A.Agung Saputra	43
2.	M. Khoirul Ilmi	45
3.	Moh. Rizal Habibi	65
4.	Moh. Arifin	78
5.	Rofi'udin	45
6.	Andi Muhammad Amin	45

7.	Ayu Putri Winda Sari	58
8.	Amirul Nurazizul Q.	68
9.	Bima Saputra Jaya	55
10.	Dina Sofiyana	53
11.	M. Heru Prayogo	25
12.	Himma Zakiyah	50
13.	Khoirun Nisak	70
14.	Laili Faridatul H.	63
15.	Maratus Sholiqah	85
16.	M. Fais Setia Budi	48
17.	M. Farisqi	70
18.	Maghfiro Risqi A	58
19.	M. Fathul Rohman	23
20.	M. Shokhibul Kahfi	65
21.	M. Nur Ilyas	43
22.	M. Teguh Hermawan	60
23.	M. Rizal Ramadhon	83
24.	Nofa Dwi Ratna	70
25.	Sindi Diyah N.	85
26.	Zainur Rozikin	78
27.	Yogi Ananda	55
average		58,74
Graduate presentage		48%

The number of students who have the above criteria is compared to the total of student in the class.

$$A = \frac{\sum HS}{\sum N} \times 100\%$$

$$= \frac{13}{27} \times 100\%$$

$$= 48\%$$

A   = Percentage students which achieved passing grade

$\sum HS$ = the number of students who achieved the criteria

$\sum N$ = the total of students in a class

Based on data above –especially on the material about digestive system related to food and health- shows that the student who received

grades above the minimum criteria (KKM) is 48% of 27 students. The students reach passing grade is 65. This score became pre-test. The percentage of student achievement from pre-research was taken as pre-test.

Table 4.3 average pre-test

Score	Percentage	Statement
91-100	0%	No one gets score 90-100
81-90	11 %	There is 3 students from 27 students
71-80	18%	There is 2 students from 27 students
61-70	25%	There is 7 students from 27 students
Under 60	55%	There is 15 students from 27 students

Based on data above, no one student achieves score 90-100. There is 11% from 27 students who get 81-90 score. Only 2 students get 71-80 score. There are 55% of students who get score under 60.

The researcher often visits to the houses' teacher for getting some data of the fifth class. The researcher wants to closer with the teacher before conducting the research. If the relationship and communication can be created, the research will conduct well.

3) Reflecting

The teacher doesn't avoid the teacher centered, however lecturing method is needed in the teaching process. The new method is good enough but the teacher must explain to the students about the material every last meeting. That is avoiding misunderstanding the material. This is the teachers' said. The students have common features independent with

teacher. The individualization program is new method, so the teacher must recognize the method slowly and carefully.

2. Data explanation the first cycle at the first meeting

The first cycle conducts in two meetings. In every meeting 2 x 35 minutes. In this meeting the researcher implement team assisted individualization method to improve students' achievement.

a. The Planning of the first cycle

Based on the interviewed with the teacher, the researcher plans some steps following actions for the next meeting (cycle 1). In the first cycle of the planning is conducted by:

1) The researcher makes the lesson plans includes opening, core activity, closing

2) The researcher makes media about material which will be taught.

3) Designing to apply the method TAI (Team Assisted Individualization) where process of implementation should include material guidebook along with a question and an answer key.

4) Designing to make learning media in the form of images that describes the concept of digestive system.

5) Arranging a list of the students from the highest to the lowest students' achievement.

6) Every group does their work cooperatively

7) Forming a heterogeneous group consist of 5-6 students who have different capability. The member name of group is supported in appendix

8) Forming homogeneous groups consist of 5-6 students who have same capability. The member name of group is supported in appendix

9) Preparing paper of observation of activities of the teacher

10) Preparing paper of observation of activities of the teacher.

11) Preparing paper of absence

12) Making reflecting for correction to the next cycle.

Every planning is known by the teacher. The researcher always consults with the teacher to conduct the research. In this cycle the teacher conduct her professionalism is as teacher. The researcher is as active participant.

b. Acting

Research on the first cycle of the first meeting held on Monday, September 3rd 2012. Research in the first cycle, the researchers divided into two meetings. Habit of students on Monday is the ceremony in the school yard. Ceremony begins at 06.35 am. The ceremony does with solemn. After the ceremony the students run to class. They are happy because there is researcher.

Picture 4.1 Ceremony in the school yard

This meeting consist of 3 steps, they are opening activity, core activity, and closing activity which include reflection and evaluation.

1) Opening activity

At 7.06 am, students pray and recite holy Qur'an. Then, the students memorize the letters AT-TIN. In the opening activity, started by greeting to all of students, continued by checking attendance list, asking students' condition, continued by delivering the purpose of teaching and learning, and explains the steps of teaching and learning activity globally. In the apperception step, the teacher gives stimulus by recalling the previous material about digestive system.

2) Core activity

The first meeting, the teacher divides the group that had been planned by the researchers. Researcher distributes work sheets TAI (Team Assisted Individualization). Teacher explains how to implement it slowly. Teacher explains that they are a homogeneous group that is working on individual assignments, while heterogeneous groups are groups of real students.

Picture 4.2 Learning process in the first cycle

That picture shows that the individualization program is in the homogeny group. Students must compete to get good score so that their heterogeneous group gets the highest score. Individual success determines the success of the group. Students encourage for working on individual tasks that have been provided by the researcher.

3) The closing

At the ending of the learning activity, the teacher explains a little about the misunderstanding material. The teacher evaluates the students by asking the point of guided book. The teacher also gives opportunity to the students to conclude the materials that have studied. Then the students collected the result of group worksheet. The students are closer than before. It can be looked from their activeness in expressing idea, dialog with the team, and togetherness in teamwork.

c. Observing

Observation was conducted during the teaching and learning activity in each meeting. The first meeting was conducted on Monday, September 3rd 2012 at 07.00-08.10 am. The students conduct the ceremony

in the school yard. At 7.06 am, students pray and recite holy Qur'an. Then, the students memorize the letters AT-TIN. After finishing reciting the Holy Qur'an, the teacher opened the lesson. The students confuse when they has been divided in the heterogeneous group, the must be divided again in the homogeneous group.

This condition happens because the method is the first time for them. When the students divide into homogeneous group, they feel jealous. They think that there are smart and low group. Here the teacher role explains the rules of this method once again.

This is the interviewed after the student does the learning process using team assisted individualization method in the fifth grade at MI Miftahul Ulum Malang.

Picture 4.3 interviewed with the student

Siswa	: Sampai kapan bu di sini?
Peneliti	: Sampai waktunya tiba. Kamu senang pelajaran IPA?
Siswa	: Senang kalau waktu materinya mudah.
Peneliti	: Pencernaan makanan itu termasuk mudah atau sulit?
Siswa	: Lumayan sulit bu, banyak materinya.
Peneliti	: Kalau pelajaran tadi paham tidak nak?
Siswa	: Sedikit agak tidak paham bu!
Peneliti	: Bagian apa yang tidak paham?

Siswa	: Kalau ngoreksi itu bu agak ribet, trus habis gitu ngapain, masih belum jelas aku bu, Biasanya tidak pernah soalnya bu.
Peneliti	: Tidak apa-apa, namanya juga baru pertama kali, nanti lama-lama juga mengerti
Siswa	: Gambar-gambarnya lucu-lucu bu. Tapi koq yang pinter campur pinter semua bu?
Peneliti	: Iya, biar bu guru mudah mengajarnya nak! Nanti nilainya akan digabungkan dengan kelompok awal tadi koq. Jadi di kelompok baru ini harus bersaing dapat nilai bagus agar nanti kelompoknya jadi yang terbaik.
Siswa	: OK bu![40]

Based on the result that interviewed, the students confuse about the checking score. They don't know well about answer key. The classroom is noisy. The researcher helps the teacher to manage the class. All children are smart working on quickly. But they haven't understand how an assessment group. For the child who is capable of low they look confused because of unfinished work.

Table 4.4 Paper observation of teacher in the first cycle the learning process uses Team Assisted Individualization.

No.	The aspects is observed	Score			
		1	2	3	4
1.	Introduction 1. The teacher conveys the learning purpose. 2. The teacher encourages the students to conduct the science learning with some questions related to their primary experience.	√		√	
2.	Learning activities a. The teacher divides heterogeneous group which consist of five to six students. b. The teacher gives a placement test at the beginning of program. c. The teacher divides homogeneous group which		√	√	

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[40] Interview with Mar'atus as the fifth grade students of MI Miftahul Ulum Singosari Malang at 08.10 am, on Monday, September 3rd 2012

			√	
	consists of students who have same academic capability.		√	
	d. The teacher prepares the guided book.		√	
	e. The teacher chooses one student who is as supervisor of each group.	√		
	f. The teacher controls of the homogeneous group.		√	
	g. The teacher helps of individual when the student faces difficult material.		√	
	h. Teacher keeps score group. This score bases on the average unit by each member of the group.	√		
	i. Teacher teaches the whole class and masters the skills of everyday problems.		√	
	j. The teacher gives conclusion of the material.	√		
3.	The teacher manages time efficiently learning process.		√	
4.	Good performance from the teacher		√	
5.	Enthusiasm the teacher is in the learning process.		√	

Note:

1= less   3 = good enough
2= enough   4 = very good

Based on paper observation above, the teacher has conducted tam assisted individualization method. In the first cycle, the teacher done well enough all of activities, but some common feature doesn't do such as conveying the learning purpose. The teacher is doubt when she explaining this method. That is no problem because the first time for teacher using the method.

Table 4.5 Paper observation activities of students in the first meeting

Variables	Indicator	Score Cycle I			
		4	3	2	1
Enthusiasm	1. Showing the desire in the lesson		√		
	2. Enthusiasm doing the task		√		
	3. Doing the task in time		√		
	4.Pay attention to the teacher			√	
Cooperation	1.Helping the other friends		√		
	2.Active participation		√		
Creativities	1.Answering the question from the teacher			√	
	2.Asking difficult question.			√	

Note:

1 = less   3 = good enough
2 = enough   4 = very good

Based on above the paper of observation the students activities encourage than pre-test. The students have motivation to do the task in time. They have communicated with others to solve the problem. The student is lack to answer question. They look like shy.

The observation sheets learning outcomes can be seen that the learning outcomes students when the following teaching and learning activities with using TAI (Team Assisted Individualization) slightly increases it look at the students' worksheet. It shows that the students are enthusiastic when they are in teaching and learning activities. So it could conclude that the method is suitable for student learning outcomes in teaching and learning activities. However, sometimes some students don't apply this method. Teachers can control homogeneous group which

consists of low capability. This group became more motivated to get better value. Homogeneous group of high capability, they become comfortable and fast in learning process because they are not tired to wait for an explanation from the teacher repeatedly. The increasing from students' achievement is still standard.

d. Reflecting

The implementation of the first cycle can be deduced that TAI (Team Assisted Individualization) suitable to be applied in science subjects. The teacher just assigns tasks in the guide book and working according to their abilities when teaching the students will try to do level according to their ability so that it would affect the students' achievement.

Based on the above data is necessary to improve that students are more motivated when they study. The teacher asks the researcher to explain the rule clearly of method to the students for the second meeting. The researcher explains the method in the planning with the teacher. The teacher agrees to continue the second meeting.

3. **Data explanation the first cycle at the second meeting**

Research on the first cycle of the first meeting held on Wednesday, September 5th 2012. Research in the first cycle, the researchers conducts in the second meetings.

a. The Planning of the first cycle

Based on the consultation with the teacher, the researcher improves the method. Researcher still uses Team-Assisted Individualization method,

but the researcher uses variations that are used in cooperative learning. Variations in cooperative learning are expected to increase student achievement and create an atmosphere of learning more effective and enjoyable. Before implying the actions, the researcher prepares some necessity.

1) Making learning plan that consists of the introduction, core activities, and cover.

2) Preparing research instruments, namely the observation sheets were used to assess students in groups and the activeness of activity of students in learning process.

3) Preparing the media of instruction

4) Arranging the steps of the method.

   a. The teacher divides groups which consist of four to five students. The group is heterogeneous. Each group consists of students who are high, medium, and low student achievement, men and women. The group is called heterogeneous group.

   b. The teacher gives a placement test at the beginning of program. The students were placed in the individualized programs based on their achievement on the placement test.

   c. The teacher divides homogeneous group. Every group consists of students who have same academic capability.

   d. The teacher prepares the guided book. Every student gets the guided book. The guided book consists of reviewing material from teacher.

There are two items with four problems, ten item formative A, two items with four problems which is different with the first four problems, and ten item formative B.

e. The teacher chooses one student who is as supervisor of each group.

f. The students do the first from four problems. If all member of group finished, the teacher will give key answer to supervisor for checking the answer of members' group.

g. The teacher controls of the homogeneous group which is consist of students who have low students' achievement.

h. The teacher will help to solve the problems of individual when the student faces difficult material.

i. Teacher gives lessons to small groups from heterogeneous groups with the same abilities.

j. Teacher utilizes experimental and images. The lesson was designed help student' understanding.

k. The students do with real life issues that often they meet. While teacher teaches one group, other students continue working on their self-teaching units in their groups. Teaching them independent is in their groups.

l. Direct instruction is in group teaching because students are required to walk responsible for all checks of material

m. At the ending of each week, teacher keeps score group. This score bases on the average unit by each member of the group. High

criteria are "super group", the medium is the "great group" and the criteria for the lowest are "the good". The super group gets exciting certified.

n. Teachers' individual programs stop and take a week to teach the whole class and master the skills of everyday problems.

b. Acting

This is the second meeting. Basic competence is digestive system with material which continue last meeting. The students hear explanation from researcher about the rule of method. All of students look at seriously. The situation happens because the researcher is new person for them.

Peneliti	:"Dengarkan ibu baik-baik ya nak! Sekarang anak-anak berkumpul dengan kelompok yang kemarin sudah dibagi oleh ibu guru.
Yogi	:"Yang mana bu? Kelompok awal apa yang kelompok enzim group itu?"
Peneliti	:" Di kelompok awal yang ibu beri nama zat-zat makanan! Mana lemak group?
Lemak group	: ye, ye, ye, lemak group paling OK!
The peneliti	:Jadi aturannya begini: kertas penilain yang ibu berikan ini diisi point yang kemarin kalian peroleh. Hasilnya disimpan ya! Jika nilai setiap anggota kelompok kalian bagus maka akan menjadi the best group. Nanti semua point akan dijumlah di akhir materi. Nah, sekarang untuk pengecekan dan penilaian dari lembar kerja akan dinilai oleh enzim group. Kalian tidak perlu khawatir jawabannya ada di belakang lembar kerja. Ketika semua anggota dari satu kelompok enzim selesai, jawaban ditukar dan leedernya bergantian. Paham semua anak-anak!
Siswa-siswa	: Paham bu![41]

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[41] Presentation of the researcher in the fifth grade students of MI Miftahul Ulum Singosari Malang at 08.10 am, on Wednesday, September 5th 2012

Before the researcher explains the rule, the student starts to joint with individual program. The teacher walks around of class to help the group which has low capability of student. The teacher explains with media or picture. The researcher gives concrete examples, because some the students who are difficult to understand.

Picture 4.4 Team Assisted Individualization

This situation of the picture is in the individual program, so the teacher can control the students who are difficult to understand. The smart student can study suitable their capability. The supervisor of the group to check the answer of others changes every day. The ending of learning process, teacher explains material about digestive student to avoid misunderstanding.

c. Observation

Research on the first cycle of the first meeting held on September 5th 2012. Wednesday starts at 08.10-09.20 am.

Results from observation at this cycle, students have reached indicators to be achieved. It can be shown that the learning outcomes learner in the process of learning science increases. This can be shown that

lessons learners in the learning process science increase. Learners are more enthusiasm about a task assigned by the teacher. The students glad and not feel saturated when learning and teaching lasting. Student achievement of fifth grade on digestive system material is:

Table 4.6 Students' achievement the first cycle

No.	Name	Score
1.	A.Agung Saputra	50
2.	M. Khoirul Ilmi	75
3.	Moh. Rizal Habibi	Sick
4.	Moh. Arifin	75
5.	Rofi'udin	50
6.	Andi Muhammad Amin	100
7.	Ayu Putri Winda Sari	100
8.	Amirul Nurazizul Q.	50
9.	Bima Saputra Jaya	25
10.	Dina Sofiyana	50
11.	M. Heru Prayogo	75
12.	Himma Zakiyah	Sick
13.	Khoirun Nisak	100
14.	Laili Faridatul H.	100
15.	Maratus Sholiqah	75
16.	M. Fais Setia Budi	Sick
17.	M. Farisqi	100
18.	Maghfiro Risqi A	75
19.	M. Fathul Rohman	50
20.	M. Shokhibul Kahfi	100
21.	M. Nur Ilyas	50
22.	M. Teguh Hermawan	75
23.	M. Rizal Ramadhon	50
24.	Nofa Dwi Ratna	100
25.	Sindi Diyah N.	75
26.	Zainur Rozikin	Sick
27.	Yogi Ananda	75
Average		70,65
Graduated precentage		

The number of students who have the above criteria is compared to the total of student in the class.

$$A = \frac{\sum HS}{\sum N} \times 100\%$$

$$= \frac{15}{23} \times 100\%$$

$$= 65\%$$

A = Percentage students which achieved passing grade

$\sum HS$ = the number of students who achieved the criteria

$\sum N$ = the total of students in a class

Based on result of analysis data above, there are 4 students who are absent in the first cycle. The students who are upper the minimum criteria achievement is 65% of 23 students. The 35% of the students are low students' achievement. The passing grade is 70. The pre-test with the first cycle increased.

Table 4.7 the percentage of the first cycle at the second meeting

Score	Percentage	Statement
91-100	30%	There is 7 students from 23 students
81-90	0 %	No one
71-80	35%	There is 8 students from 23 students
61-70	0%	No one
Under 60	35%	There is 8 students from 23 students

According to above data, the students who obtain maximum score 100 is seven students (30%). There is 8 students who getting under 60. 35% of students get score 71-80. The students' achievement is increased in this cycle.

Table 4.8 the observation of students' activities in the first cycle

Variables	Indicator	Score Pre test			
		4	3	2	1
Enthusiasm	1. Showing the desire in the lesson		√		
	2. Enthusiasm doing the task			√	
	3. Doing the task in time		√		
	4.Pay attention to the teacher		√		
Cooperation	1.Helping the other friends		√		
	2.Active participation		√		
Creativities	1.Answering the question from the teacher			√	
	2.Asking difficult question.			√	

Based on above paper observation about activities in the first cycle at the second meeting the students have enthusiasm in the learning process. They are active participation in the learning process. The students can do the task in time. The students who have low students' achievement encourage for getting the good score.

Picture 4.5 interviewed with the student in the second meeting

Peneliti	: Kalau kalian ada tugas kelompok semuanya ikut mengerjakan?
Siswa	: Iya bu, tapi kadang aku sendiri yang ngerjakan.
Peneliti	: Tugas kelompok kemarin Cuma kamu saja yang mengerjakan?
Siswa	: Mboten bu, soalnya kan nilainya sendiri-sendiri, anak laki-laki itu bu biasanya males ngerjakan.
Peneliti	: Itu tugasmu buat ngubrak-ngubrak biar ikut kerja semua, nanti kalau dibiarkan enak anaknya donk.
Siswa	: Nanti point yang menang banyak dapat hadiah bu?
Peneliti	: Iya nanti dikumpulkan masing-masing kelompok nak.
Siswa	: Lha bu, kelompokku kemarin ada yang gak dapat point bu, ya nanti rata-rata nya bisa kalah
Peneliti	: Teman yang belum paham dibantu dan didukung nak, jangan malah dimarahi. Ditanyai mana yang belum bisa biar nanti semua nilainya bagus jadi kelompok terbaik.
Siswa	: Anaknya tu memang susah sih bu . . . . . [42]

Based on the interviewed with the student, the researcher finds the

lazy students when they do task group. In the individualization program,

they must do their task by themselves. That case forces them to do their

responsibility in order to their group gets the best score.

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[42] Interview with Sindi as the fifth grade students of MI Miftahul Ulum Singosari Malang at 08.10 am, on Monday, September 5th 2012.

d. Reflecting

The implementation and results of observational learning process on the first cycle Team Assisted Individualization can be drawn the conclusion that the application of the cooperative learning through Team Assisted Individualization on learning science is still not enough.

Fifth grade still unfamiliar individual program, the next application should be maximized with more motivate student learning. Thus, it is in the implementation of this method, researcher should motivate students so that they are always the enthusiasm and not quickly bored in learning, especially learning the science class.

Picture 4.6 interviewed with the science teacher in the second meeting

Peneliti	:Bagaimana menurut ibu tentang metode Team Assisted Individualization?
Guru	:Ya, sudah cukup berhasil. Anak-anak semangat untuk mencari nilai yang bagus. Mereka harus berlatih mandiri mulai sekarang. Kalau begini, bisa mengajar siswa-siswa yang biasanya lambat dalam pelajaran.
Peneliti	: Untuk Kamis besok ganti materi ya bu tentang makan bergizi seimbang. Saya sudah menyiapakan media-media yang dibutuhkan.
Guru	: Kamis ya, sepertinya pelajaran IPA jam terakhir. Bagaimana jika ditambah dengan praktikum tentang zat-zat makanan.

Praktikumnya cukup satu saja. Nanti gurunya yang memperagakan, karena kalau setiap kelompok harus praktikum memang benar sih bagus untuk anak-anak, tapi biasanya mereka malah tidak focus. Jadi lebih baik jika satu praktikum saja yang penting bisa menarik minat anak untuk belajar di jam terakhir agar tidak mengantuk dan merengek cepat-cepat pulang.

Peneliti   : Baik bu, terima kasih atas sarannya.

Guru   : Iya sama-sama.[43]

From the results of the discussion with the teacher advises the researcher to apply practice about healthy first, after that return in individual program. The practice will be conducted next meeting. The suggestions are:

1) There is practicum in the food material

2) Giving the trust to students who have low students' achievement

3) Understanding to individual to get good score because the score individual determines group score.

4. Data explanation the second cycle at the third meeting

Research on the first cycle of the first meeting held on Thursday, September, 6th 2012. Based on the suggestion of the teacher, the researchers divided into two meetings the research in the second cycle.

a. The Planning of the second cycle at the third meeting

Based on the suggestion of the teacher, in the second cycle of the planning is done by:

1) Making the lesson plans,

2) Making paper observation of the second cycle,

3) Making the questioner for the students

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[43] Interview with the science teacher is Mrs. Ifa in the fifth grade of MI Miftahul Ulum Singosari Malang at 10.00 am, on Monday, September 5th 2012

4) Making the paper of practicum

5) Making media that differ according to the material being taught and prepared the media and different sources of learning.

Learning activities in the second cycle of the third meeting is designed to apply the practicum where in the process of implementation should include practice of science.

The second cycle is designed to make learning media. The media is picture that describes the concept of healthy food.

1) Five sheet of color paper

2) Picture about various food

3) Glue

4) Yodium liquid

5) Rice, bread, cassava, apple, banana, and tofu

6) Worksheet of list of food

b. Acting of the second cycle at the third meeting

This opportunity, the researcher is as a teacher. The teacher is a researcher. The researcher does practicum in the third meeting. The researcher shows some picture and food, the students are interest in learning. They focus on learning process. The researcher practices about food which contain carbohydrate. Some students help the researcher to do practicum and the others write the conclusion of the practicum.

The students get the worksheet to write the result of practicum. They discuss in heterogeneous group about the material. After that, a

student explains in front of class about food which contains carbohydrate.

The researcher gives picture about various food, glue, and color paper for each group. The homework is arrangement picture of food. The students can explore their creation in the paper.

The students return in individual program. They can do their worksheet faster than before. The teacher controls every group to ensure that they do independence. The students have homework to make product of with the heterogeneous group. In the ending of teaching and learning process, the researcher explains the material generally to avoid misunderstanding of students.

c. Observation of the second cycle at the third meeting

Science is on Thursday afternoon. The students are so tired. The teacher conducts practicum of science to deepen the understanding of students. Students are very enthusiastic for joint instruction in the classroom. One of students says that they will be sleepy at the last hour, but, this time students are able to follow the material properly. When they return in the individual programs, they enjoy it. This is because they already know how to implement this method.

Table 4.9 Students' achievement of the second cycle at the third meeting

No.	Name	Score
1.	A.Agung Saputra	70
2.	M. Khoirul Ilmi	65
3.	Moh. Rizal Habibi	82
4.	Moh. Arifin	70

5.	Rofi'udin	50
6.	Andi Muhammad Amin	75
7.	Ayu Putri Winda Sari	100
8.	Amirul Nurazizul Q.	75
9.	Bima Saputra Jaya	62
10.	Dina Sofiyana	87
11.	M. Heru Prayogo	50
12.	Himma Zakiyah	62
13.	Khoirun Nisak	100
14.	Laili Faridatul H.	50
15.	Maratus Sholiqah	87
16.	M. Fais Setia Budi	75
17.	M. Farisqi	87
18.	Maghfiro Risqi A	75
19.	M. Fathul Rohman	70
20.	M. Shokhibul Kahfi	100
21.	M. Nur Ilyas	50
22.	M. Teguh Hermawan	82
23.	M. Rizal Ramadhon	87
24.	Nofa Dwi Ratna	100
25.	Sindi Diyah N.	87
26.	Zainur Rozikin	70
27.	Yogi Ananda	82

According the above data, there are no one students who are absent in the second cycle. The student who are upper the minimum criteria achievement is 74% of 27 students. The minimum criterion which is determined is 70. This cycle fulfill the criteria of successes the research.

Table 4.10 the percentage of the second cycle at the third meeting

Score	Percentage	Statement
91-100	15%	There is 4 students from 27 students
81-90	29%	There is 8 students from 27 students
71-80	15%	There is 4 students from 27 students
61-70	26%	There is 7 students from 27 students
Under 60	15%	There is 4 students from 27 students

Based on result of analysis data above, the students who obtain maximum score 100 is four students (15%). The students who obtain 81-90 score is eight students. There is four students who have under 60 score. There are 4 students from 27 students, so the percentage is 15% getting 71-80 score.

The results can lead to be improvement, and changing from the previous situation, the researchers used the formula.

P = *post test – pre test* x 100%

Pre test

Note:

P   = Raising percentage

Post test   = average value after research

Pre test   = average value before research

4.11 comparing the score of pre-test and post test.

No.	Name	Score	
		Pre	Post
1.	A.Agung Saputra	43	70
2.	M. Khoirul Ilmi	45	65
3.	Moh. Rizal Habibi	65	82
4.	Moh. Arifin	78	70
5.	Rofi'udin	45	50
6.	Andi Muhammad Amin	45	75
7.	Ayu Putri Winda Sari	58	100
8.	Amirul Nurazizul Q.	68	75
9.	Bima Saputra Jaya	55	62
10.	Dina Sofiyana	53	87
11.	M. Heru Prayogo	25	50
12.	Himma Zakiyah	50	62
13.	Khoirun Nisak	70	100
14.	Laili Faridatul H.	63	50
15.	Maratus Sholiqah	85	87

16.	M. Fais Setia Budi	48	75
17.	M. Farisqi	70	87
18.	Maghfiro Risqi A	58	75
19.	M. Fathul Rohman	23	70
20.	M. Shokhibul Kahfi	65	100
21.	M. Nur Ilyas	43	50
22.	M. Teguh Hermawan	60	82
23.	M. Rizal Ramadhon	83	87
24.	Nofa Dwi Ratna	70	100
25.	Sindi Diyah N.	85	87
26.	Zainur Rozikin	78	70
27.	Yogi Ananda	55	82
Average		58,74	75,92
Graduated precentage		48%	74%

So, P $= \dfrac{75, 92-58,74}{58,74} \times 100\%$

$= 29\%$

Based on the above data, the score pre-test and post-test increased. The increasing is 29%. The application of this method is good enough. This cycle achieves the criteria of the research. The criteria of students' achievement can be observed from these following indicators:

1) The research will be stopped if the average score all of students are 70% success.

2) The passing grade of individual is 70 from 100 score.

3) If the indicator has not achieved, the researcher has to next research in the third cycle until the research can achieve the indicator which is determined before.

d. Reflecting

The results of the observation the second cycle proves that an increase in student achievement in science lessons. These improvements can be known through observations that have been made by researcher. The observation shows that the application of cooperative learning strategy in learning through Team Assisted Individualization can improve student achievement of fifth grade at MI Miftahul Ulum Malang. The results of field observation show that the score pre-test and post-test increased. The increasing is 29%. The ending of this method is reward for the high group score which is conducted in the fourth meeting.

5. **Data explanation the second cycle at the fourth meeting**

a. The Planning of the second cycle at the fourth meeting

This research is the last meeting in the learning process. The researcher prepares:

1. Certificate for all of group

2. Questioner of the students

3. Reward for the best score

4. Lesson plan for task of group

5. Some reward for all of group

b. Acting

Research on the second cycle of the last meeting held on Monday, September 10th 2012. Research in the second cycle, the researchers joint the ceremony. Habit of students on Monday is the

ceremony in the school yard. Ceremony begins at 06.40 am. The ceremony does with solemn.

Picture 4.7 Ceremony in the school yard September 10th 2012

This meeting consist of 3 steps, they are opening activity, core activity, and closing activity which include reflection and evaluation.

1) Opening activity

At 7.10 am, students pray and recite holy Qur'an. Then, the students memorize the letters Al-Lahab until An-Nas. In the opening activity, started by greeting to all of students, continued by checking attendance list, asking students' condition, continued by delivering the purpose of teaching and learning, and explains the steps of teaching and learning activity globally. In the apperception step, the teacher gives stimulus by recalling the previous material about food, and health.

2) Core activity

The last meeting of team assisted individualization method, the teacher gives a piece of paper. The paper has to be fulfilled by the students about the menu in daily life. The science teaching and learning related to the daily life of the students. Students fill any kinds of food which is eaten everyday by them. After that the students submit in the teachers' table.

The teacher gives opportunity to all of group to present the homework in front of class. The other group gives question. Member of group get one question to get the point. The student who is active answers the question which is given by the other. For shame student effort to answer the question and expressed her idea. This learning process encourages the students to give their opinion.

Picture 4.8 presentation of the heterogeneous group

That picture shows that the individualization program is in the heterogeneous group. Students must compete to get good score

so that their heterogeneous group gets the highest score. Individual success determines the success of the group. Students encourage for working on individual tasks that have been provided by the researcher. The teacher corrects the misunderstanding in the presentation of group.

3) The closing activity

At the ending of the learning activity, the teacher explains a little about the misunderstanding material. The teacher evaluates the students by asking the point of guided book. The teacher also gives opportunity to the students to conclude the materials that have studied. Then the students collected the result of group worksheet. The students are closer than before. It can be looked from their activeness in expressing idea, dialog with the team, and togetherness in teamwork.

Then, every group accounts the point which is gotten by individual. The highest score of group becomes SUPER group. The best score of individual gets reward from teacher.

c. Observing

The last meeting is conducted on Monday, September, 10th 2012. The lesson starts at 07.00-08.10 am. The climate is clearly enough. The face of students is cheerful.

Table 4.12 the observation of students' activities in the last meeting

Variables	Indicator	Score Pre test			
		4	3	2	1
Enthusiasm	1. Showing the desire in the lesson		√		
	2. Enthusiasm doing the task		√		
	3. Doing the task in time		√		
	4.Pay attention to the teacher		√		
Cooperation	1.Helping the other friends		√		
	2.Active participation		√		
Creativities	1.Answering the question from the teacher		√		
	2.Asking difficult question.		√		

Based on above paper observation about students' activities in the last meeting the students have enthusiasm in the learning process. They are active participation in the learning process. The students do the task in time. The student who have low students' achievement encourages obtaining the good score.

Picture 4.9 Super Team

They know that this is the last time to account the point which gotten. The member of group accounts the point of each member. The point individual determines the success of group. This is the picture of the highest score that become SUPER TEAM. The other picture and amount of group point is supported in appendix.

Picture 4.10 interviewed with the Yogi is as the student in the last meeting

Peneliti	: Bagaimana nak rasanya jika bu guru menggunakan kelompok Team assisted,Individualization?
Siswa	: Enak bu, bisa belajar bareng sama teman.
Peneliti	: Kalau kelompokan ngerjakan apa tidak? Jangan-jangan sering contoh temannya?

Siswa	: Iya gak lah bu, nanti kan point nya dikumpulkan, kalau nyontek dimarahi teman bu, soalnya kan saingan sama kelompok lain.
Peneliti	: Pertanyaannya mudah-mudah apa banyak yang sulit?
Siswa	: Mudah koq bu, tapi kalau baca harus teliti, ada gambar-gambar di soal-soalnya, lucu-lucu bu, biasanya kan cuma diterangkan sama bu Ifa.
Peneliti	: Ya, harus belajar sungguh-sungguh nak!
Siswa	: Saya senang kalau praktikum bu!
Peneliti	: Lebih paham ya nak!
Siswa	: Apalagi nanti akhirnya kelompok yang nilainya paling bagus dapat penghargaan sama hadiah. Wah . . . .
Peneliti	: Ya sudah, istirahat dulu . . . .
Siswa	: Iya bu, aku gak jajan koq bu.
Peneliti	: Lho, kenapa? Gak bawa uang ta nak?
Siswa	: Sangu bu, tadi kan menang jadi kelompok super dapat jajan dari ibu, ya sekarang gak usa beli (sambil tersenyum).
Peneliti	: Kamu ini . . . .[44]

Based on the interviewed with Yogi is as the fifth grade student. The team assisted individualization can encourage the motivation of the students. They are in competition environment but they don't put aside the cooperative environment with the others. The appreciation in the last method can motivate the students. The student can strengthen the social environment.

d. Reflecting

Team assisted Individualization improves 5th grade student achievement on science at MI Miftahul Ulum Malang.

1) The students are comfortable in the teaching and learning activity and they are confident to ask and answer the question.

2) The student who is shy encourage in the learning process.

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[44] Interview with Yogias the fifth grade students of MI Miftahul Ulum Singosari Malang at 07.45 am, on Monday, September 10th 2012

3) The students try to be responsible to their work, discipline, and interact with other friends in a team.

4) The students look enthusiastic, optimistic, and curious in the implementation team assisted individualization

5) A few of the students depend on the others students, teaching and learning activity is dominated by active students.

6) The students are accustomed to answer the question from the teacher

7) The students are accustomed to ask difficult material from the teacher

8) Most of them are accustomed with the application of team assisted individualization

9) The students all of class who achieved the passing grade of students' achievement achieved 74%.

10) The improvement of pre-test to post test achieved 29 %.

CHAPTER V

DISCUSSION

The researcher conducts Classroom Action Research in the fifth grade at MI Miftahul Ulum Singosari Malang on science. The researcher implemented the assisted individualization method to improve students' achievement in science.

A. The Instruction Planning of TAI (Team-Assisted Individualization) Method is Implemented to Improve 5th Grade Students' Achievement on Science at MI Miftahul Ulum Singosari Malang

This instruction planning conducted two cycles. Every cycle consist of two meetings. Science is studied three times a week.

Before the researcher implements the research, the researcher determines the criteria of students' achievement can be observed from these following indicators:

1. The research will be stopped if the average score all of students are 70% success.

2. The passing grade of individual is 70 from 100 score.

3. If the indicator has not achieved, the researcher has to next research in the third cycle until the research can achieve the indicator which is determined before.

Based on the advising of the teacher before conducting the second observation, the researcher prepares some planning as follows:

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a) Making design of teaching planning, paper of observation, pre-test and post-test

b) Making learning plan that consists of the introduction, core activities, and cover.

c) Making design of guided book in the team assisted individualization method

d) Making reflection for correction to the next cycle.

e) Making the result of interviewed.

f) Arranging the steps of the method.

g) Preparing research instruments, namely the observation sheets were used to assess students in groups and the activeness of activity of students in learning process.

h) Making the paper of practicum

i) Certificate for all of group

The researcher conducts the pre-test before starting the research. Based on Mulyasa's book that pre-test is useful before the researcher conducts the learning process. The function of pre-test is preparing the students in the learning process, and knowing previous knowledge of the students.[45]

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[45] E.Mulyasa, op.cit, p. 173

B. The Learning Process of TAI (Team-Assisted Individualization) Method is Implemented to Improve 5th Grade Students' Achievement on Science at MI Miftahul Ulum Singosari Malang

Science is studied three times a week. Every Monday science learning starts at 07.00-08.10 am. Wednesday starts at 08.10-09.20 am and Thursday starts at 10.50-11.25 am. Research on the first cycle of the first meeting held on Monday, September 3rd 2012 and on Wednesday, September 6th 2012 in the fifth grade at MI Miftahul Ulum Singosari Malang.

Based on the result of pre-test from the teacher, the student who received grades above the minimum criteria is 48% of 27 students. The students reach passing grade is 65. This score became pre-test. The percentage of student achievement from pre-research was taken as pre-test.

The teacher divides groups which consist of four to five students. The group is heterogeneous. Each group consists of students who are high, medium, and low student achievement, men and women. The group is called heterogeneous group. The teacher divides homogeneous group. Every group consists of students who have same academic capability.

The teacher prepares the guided book. Every student gets the guided book. The guided book consists of reviewing material from teacher. There are two items with four problems, ten item formative A, two items with four problems which is different with the first four problems, and ten item formative B.

The teacher chooses one student who is as supervisor of each group. The students do the first from four problems. If all member of group finished, the teacher will give key answer to supervisor for checking the answer of members' group. The teacher controls of the homogeneous group which is consist of students who have low students' achievement. The teacher will help to solve the problems of individual when the student faces difficult material.

The first cycle, students study to use team assisted individualization method which is never done. The material is about digestive system. This material is difficult to understand. When the students divide into homogeneous group, they feel jealous. They think that there are smart and low group. Here the teacher role explains the rules of this method once again.

At the first time, students confuse the role of method. Some students cheat the answer which is in the last of student's worksheet. Every students want to good achievement. They hurry in doing the task. The students who have high student achievement are happy because they heard explanation from teacher rapidly. They can study base on their capability. The students who have low student achievement are guided by teacher in individual program. The students have motivation to do the task in time. They have communicated with others to solve the problem. The student is lack to answer question.

In this case, suitable with the statement TAI in the Shlomo Sharan's book increases motivation and supports classmates in cooperative group. In individual program students chance to start these materials based on their

selves.[46] Teacher teaches individuals and small groups that are homogeneous. Students encourage each other to understand the material quickly.

The second cycle, the teaching and learning process is started is the last meeting. The student looks at bored and tired, but they interest in learning process because the teacher explains with concrete media of healthy food.

The researcher does practicum in the third meeting. The researcher shows some picture and food, the students are interest in learning. They focus on learning process. The researcher practices about food which contain carbohydrate. Some students help the researcher to do practicum and the others write the conclusion of the practicum. Students are very enthusiastic for joint instruction in the classroom. This learning process related to the opinion of Chaplin cited at Muhibbin's book suggested that learning is the acquisition of any relatively permanent change in behavior as a result of practice and experience.[47]

The student's worksheet is more variety than before. The students explore their capability. When students gather with heterogeneous group for doing the task which is given by teacher, they tend to dependence to clever student. The teacher checks task of group in order to all of members of group participate for doing the task.

The last meeting of team assisted individualization method, the teacher gives a piece of paper. The paper has to be fulfilled by the students about the menu in daily life. The science teaching and learning related to the daily life

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[46]Shlomo Sharan, op.cit, p. 29
[47] Muhibbin Syah, op.cit, p. 90

of the students. Students fill any kinds of food which is eaten every day. In this case related to Science mentions Permendiknas, it explains that the "knowledge related to find out about the systematic nature

The teacher gives opportunity to all of group to present the homework in front of class. The other group gives question. Member of group get one question to get the point. The student who is active answers the question which is given by the other. For shame student effort to answer the question and expressed her idea. This learning process encourages the students to give their opinion. In this case related to the statement of Slavin's book suggests that the method will establish the conditions for the formation of positive attitudes[48]

At the ending of learning process, each group calculates individual score of their group. Score of each members of group became group score. The teacher obtains the highest score to become super group.

C. **The Instruction Assessment of TAI (Team-Assisted Individualization) Method is Implemented to Improve 5th Grade Students' Achievement on Science at MI Miftahul Ulum Singosari Malang**

The instruction assessment of this teaching and learning process is conducted in every cycle. The assessment is implemented to know the understanding of students about the subject matter. The assessment can be seen from students' achievement of the student. The students' achievement assesses the success of the teaching and learning process.

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[48] Robert E. Slavin dan Nancy A. Madden, op.cit, p.195

The learning process is finished by post test. According to in Mulyasa's book suggested that post test can assess the success of learning process, know the understanding of student's competence, and improve the learning process which has conducted.[49]

The researcher uses paper of observation in the instruction assessment of teacher's activities. The teacher has conducted tam assisted individualization method. In the first cycle, the teacher done well enough all of activities, but some common feature doesn't do such as conveying the learning purpose. The teacher is doubt when she explaining this method. That is no problem because the first time for teacher using the method.

The researcher uses paper of observation in the instruction assessment of student's activities. The paper of observation in the first cycle shows that the student's activities encourage than pre-test. The students have motivation to do the task in time. They have communicated with others to solve the problem. In this case related to the statement of Slavin's book suggests that the method will establish the conditions for the formation of positive attitudes[50]. The student is lack to answer question. They look like shy. The increasing from students' achievement is still standard.

Based on result of instruction assessment of the first cycle, there are 4 students who are absent in the first cycle. The students who are upper the minimum criteria achievement is 65% of 23 students. The 35% of the students are

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[49] E. Mulyasa, op.cit 175
[50] Robert E. Slavin dan Nancy A. Madden, op.cit, p.195

low students' achievement. The passing grade is 70. The pre-test with the first cycle increased.

The instruction assessment of the second cycle, there are no one students who are absent in the second cycle. The student who are upper the minimum criteria achievement is 74% of 27 students. The minimum criterion which is determined is 70. This cycle fulfill the criteria of successes the research.

Based on comparison from two cycles, the first cycle reaches 65% from the students who achieved the passing grade. The second cycle reaches 74% from the students who achieved the passing grade. The teacher teaches by using picture in learning process the first cycle, but the teacher uses implement practicum which relates to the subject matter in learning process the second cycle. This is the comparison the result of pre test, the first cycle, and the second cycle.

Table 5.1 Result of Research

No	Score	Session		
		Pre test	Cycle 1	Cycle 2
1	Percentage of student achievement	48%	65%	74%
2	Class average	58,74	70,65	75, 92

There is increasing of student achievement from pre test to post test. Increasing of pre test is 20% from the first cycle. Increasing between pre-test and cycle II is 29 %. The average of pre-test is 58, 74. The average of post-test is 75, 92. Based on discussion above, this research increases students' achievement on science fifth grade by using Team Assisted Individualization method.

Team assisted Individualization improves 5th grade students' achievement on science at MI Miftahul Ulum Malang.

1. The students are comfortable in the teaching and learning activity and they are confident to ask and answer the question.

2. The students try to be responsible to their work, discipline, and interact with other friends in a team.

3. The students look enthusiastic, optimistic, and curious in the implementation team assisted individualization

4. The most of them are accustomed with the application of team assisted individualization

5. The students all of class who achieved the passing grade of students' achievement achieved 74%.

6. The improvement of pre-test to post test increased 29 %.

CHAPTER VI

CONCLUSION AND SUGGESTION

A. Conclusion

Based on the discussion of research, the application of team assisted individualization on science at MI Miftahul Ulum Singosari Malang can improve students' achievement. The researcher makes conclusion as follows:

1) This instruction planning of TAI method is conducted two cycles. Every cycle consist of two meetings. Science is studied three times a week. The instruction planning of team assisted individualization is making design of teaching planning, paper of observation, making design of guided book in the team assisted individualization method, arranging the steps of the method, preparing research instruments such as the observation sheets were used to assess students in groups and the activeness of activity of students in learning process, making the paper of practicum, and making the certificate for all of group. All of instruction planning is consulted by the researcher to the teacher. The teacher adds the advising to improve the best planning before conducting the research.

2) The learning process of TAI (Team-Assisted Individualization) method is implemented on science at MI Miftahul Ulum Singosari Malang. At the first time, students confuse the role of method. Every students want to good achievement. They hurry in doing the task. The students who have

high student achievement can study base on their capability. The students who have low student achievement are guided by teacher in individual program. The students have communicated with others to solve the problem. The student is lack to answer question. The second cycle, the teaching and learning process is started using practicum. The researcher shows some picture and food, the students are interest in learning. They focus on learning process. The researcher practices about food which contain carbohydrate. Students are very enthusiastic for joint instruction in the classroom. The teacher gives opportunity to all of group to present the homework in front of class. This learning process encourages the students to give their opinion. At the ending of learning process, each group calculates individual score of their group. Score of each members of group became group score. The teacher obtains the highest score to become super group.

3) The instruction assessment of TAI (Team-Assisted Individualization) method is implemented on science at MI Miftahul Ulum Singosari Malang. The students who are upper the minimum criteria achievement is 65% of 23 students in the first cycle. The 35% of the students are low students' achievement. The passing grade is 70. The pre-test with the first cycle increased. The instruction assessment of the second cycle, there are no one students who are absent in the second cycle. The student who are upper the minimum criteria achievement is 74% of 27 students. The minimum criterion which is determined is 70. This cycle fulfill the criteria

of successes the research. There is increasing of student achievement from pre test to post test. Increasing of pre test is 20% from the first cycle. Increasing between pre-test and cycle II is 29 %. The average of pre-test is 58, 74. The average of post-test is 75, 92. Team assisted individualization can strengthen the social environment of students. Team Assisted Individualization instruction is effective method of the learning science. This method has potential of improving students' achievement in science.

B. Suggestion

The researcher suggests to students, the students must increase the concentration when they work on task from teacher. Students are also more active to ask question.

The teacher should use appropriate method in teaching and learning process which develop potential of student and become motivator for students.

The school is expected to facilitate of infrastructure of media in teaching and learning.

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Interview with Mrs. Siti Khofifah, S.Pd.I as the science teacher of fifth grade in MI Miftahul Ulum Singosari Malang at 06.30, May 22th, 2012

Interview with Mar'atus as the fifth grade students of MI Miftahul Ulum Singosari Malang at 08.10, on Monday, September 3rd 2012

Interview with Sindi as the fifth grade students of MI Miftahul Ulum Singosari Malang at 08.10, on Monday, September 5th 2012

Interview with the science teacher is Mrs. Ifa in the fifth grade of MI Miftahul Ulum Singosari Malang at 10.00 am, on Monday, September 5th 2012

Interview with Yogias the fifth grade students of MI Miftahul Ulum Singosari Malang at 07.45 am, on Monday, September 10th 2012.

Presentation of the researcher in the fifth grade students of MI Miftahul Ulum Singosari Malang at 08.10, on Wednesday, September 5th 2012

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APPENDICES

APPENDIX I

YAYASAN MIFTAHUL ULUM
MADRASAH IBTIDAIYAH MIFTAHUL ULUM
NSM : 111235070212   NPSN : 20518285
STATUS TERAKREDITASI "A"
Jl Masjid 03 Baturetno Singosari Telp.(0341)452654/7300802

SURAT KETERANGAN

Saya yang bertandatangan di bawah ini:

Nama   : ABDUL ROCHIM,S.Pd.I

NIP   : 195901101985041001

Jabatan   : Kepala Sekolah

Unit Organisasi   : MI Miftahul Ulum

Alamat   : Jl Masjid 03 Baturetno Singosari

Menerangkan dengan sebenarnya bahwa,

Nama   : Yanis Fitri Anggaeni

NIM   : 09140009

Fakultas/Jurusan   : Tarbiyah/ PGMI

Nama tersebut di atas telah melakukan penelitian tindakan kelas pada tanggal 03 September 2012 sampai dengan 13 September 2012.

Demikian surat keterangan ini dikeluarkan, untuk dipergunakan sebagaimana mestinya.

Singosari, 13 September 2012

Kepala Madrasah

ABDUL ROCHIM,S.Pd.I
195901101985041001

APPENDIX 2

CONSULTATION PROOF

Name   : Yanis Fitri Anggaeni
ID Number   : 09140009
Department : Teacher Education Islamic Primary School
Advisor   : A. Nurul Kawakib, M.A
Thesis   : The Application of TAI (Team Assisted Individualization)
Method to Improve 5th Grade Students' Achievement on Science at MI Miftahul Ulum Malang

No.	Date	Consultation	Signature
1.	October 07th, 2012	Background of Study	1.
2.	November, 23rd 2012	Focus of Study	2.
3.	March, 16th 2013	Revision Chapter 1	3.
4.	March, 18th 2013	Give Chapter 1-3	4.
5.	March, 19th 2013	Revision Chapter 1	5.
6.	March, 20th 2013	Revision chapter 1-3	6.
7.	March, 27th 2013	Chapter 1 and 4	7.
8.	April, 01st 2013	Chapter 1- 6	8.

Malang, April, 01st, 2013
Approved by,
Dean of Tarbiyah Faculty

Dr. H. M. Zainuddin. MA
NIP. 19620507 199503 1001

APPENDIX III

YAYASAN MIFTAHUL ULUM

MADRASAH IBTIDAIYAH MIFTAHUL ULUM

NSM : 111235070212   NPSN : 20518285

STATUS TERAKREDITASI " A "

Jl Masjid 03 Baturetno Singosari

Telp(0341)452654/7300802

PROFIL MADRASAH

1.	**Nama Madrasah**	: MI MIFTAHUL ULUM
2.	**Alamat**	
	a). Jalan/Desa	: .Jl. Masjid 03 baturetno
	b). Kecamatan	: Singosari
	c). Kabuapten	: Malang
3.	**Nama Kepala Madrasah**	: ABDUL ROKHIM,S.Pd.I
4.	**SK Pendirian**	: **W.m 06.02/5512/A/Kep./1985**
5.	**Jenjang Akreditasi**	: **A**
6.	**Status Tanah**	: **Milik Yayasan**
	a. Surat Kepemilikan Tanah	: **Wakaf**
	b. Luas Tanah	: 414 m^2
7.	**Data Siswa**	: 151 **siswa**

Kelas	Perempuan	Laki-laki	Jumlah
1	**13**	**11**	**24**
2	**14**	**14**	**28**
3	**7**	**12**	**19**
4	**9**	**19**	**28**
5	**9**	**18**	**27**
6	**16**	**9**	**25**
Jumlah Total			**151**

8. **Data Ruang Kelas** **:** 6 **ruang kelas (status milik sendiri)**

9. **Jumlah Rombongan Belajar** **:** 6 **rombongan belajar**

10. **Guru** **:** 13 **orang**

11. **Pegawai Tata Usaha** **:** 0 **orang**

No	Status Guru	Pendidikan Guru					Jumlah Total
		Juml S-1	Juml D-3	Juml D-2	Juml D-1	Juml SLTA	
1	Guru Tetap Yayasan	11					10
2	Guru Tidak Tetap Yayasan						
3	Guru PNS diperbantukan (DPK)	2					1
4	Staf Tata Usaha						

12. **Kegiatan Belajar Mengajar** : Pagi Hari

VISI DAN MISI MADRASAH

Visi:

"Terbentuknya generasi penerus bangsa yang berkualitas, berilmu, beriman dan bertaqwa serta berakhlaqul karimah".

Misi:

Untuk mencapai visi madrasah tersebut, misi dari penyelenggaraan pendidikan di Madrasah Ibtidaiyah adalah sebagai berikut:

1. Menyelenggarakan pendidikan yang berhaluan Ahlussunnah Wal Jama'ah
2. Melaksanakan kegiatan pembelajaran dan bimbingan secara efektif, tepat guna hingga setiap siswa mampu berkembang optimal sesuai dengan potensi yang dimiliki.
3. Menumbuhkan sifat kesungguhan secara intensif kepada seluruh warga
4. sekolah.

TUJUAN:

1. Meningkatkan keimanan dan ketakwaan kepada Allah SWT.
2. Meningkatkan kegiatan keagamaan dan mengupayakan pelaksanaan dalam kehidupan sehari-hari.
3. Mengembangkan kemampuan berbahasa arab & inggris
4. Mengembangkan sikap perilakupositif dalam kehidupan sehari-hari.
5. Mengembangkan pendidikan yang berorientasi pada kecakapan hidup melalui pendekatan pendidikan berbasis luar sekolah.
6. Meningkatkan kegiatan yang dapat menumbuh kembangkan budaya baca & tulis
7. Melaksanakan pembelajaran yang aktif,kreatif, inofatif, efektif, dan menyenangkan (pakiem). Sehingga siswa mampu mencapai prestasi akademik dan non akademik secara optimal.

8. Meningkatkan kelengkapan sarana dan prasarana sebagai penunjang proses pembelajaran sehingga siswa betah berada di lingkungan madrasah.

9. Menerapkan managemen pengendali mutu madrasah sehingga dapat meningkatkan animo siswa baru trasparansi dan akuntabilitas.

14. Sarana dan Prasarana Fisik

No	Gedung/Ruang	Jumlah	Luas (m2)	Status	Ket
1	Ruang Kelas	6	336 m^2	Milik Sendiri	
2	Laboratorium	-	-	-	
3	Perpustakaan	1	31 m^2	Milik Sendiri	
4	Komputer	-	-	-	
5	Keterampilan	-	-	-	
6	Kesenian	-	-	-	
7	Musholla/Masjid	-	-	-	
8	Kamar mandi/WC Guru	1	3 m^2	Milik Sendiri	
9	Kamar mandi/WC Siswa	1	3 m^2	Milik Sendiri	
10	Ruang Guru	1	31 m^2	Milik Sendiri	
11	Ruang Kepala Madrasah	1	15 m^2	Milik Sendiri	
12	Ruang Tamu	-	-	-	
13	Ruang UKS	-	-	-	
14	Ruang BP/BK	-	-	-	

Singosari, 11 Maret 2013

Ketua Komite Madrasah   Kepala Madrasah

Drs. M. Husain   Abdul Rokhim, S. PdI

DENAH LOKASI MI MIFTAHUL ULUM
BATURETNO – SINGOSARI

U

KLS III	KLS IV	KLS V
KLSVI	KLS II	KLS I

KM

KM

Dapur

R KEPALA MI	R GURU	PERPUS UKS, LAB

APPENDIX IV

STUKTUR ORGANISASI
MI MIFTAHUL ULUM BATURETNO

| PENGURUS MADRASAH | KEMENAG KAB. MALANG | LP. MAARIF |

KEPALA MADRASAH
Abdul Rokhim, S.Pd.I

KOMITE MADRASAH
Drs.Moh.Husain

Ka. TU
Hayanti S.Ag
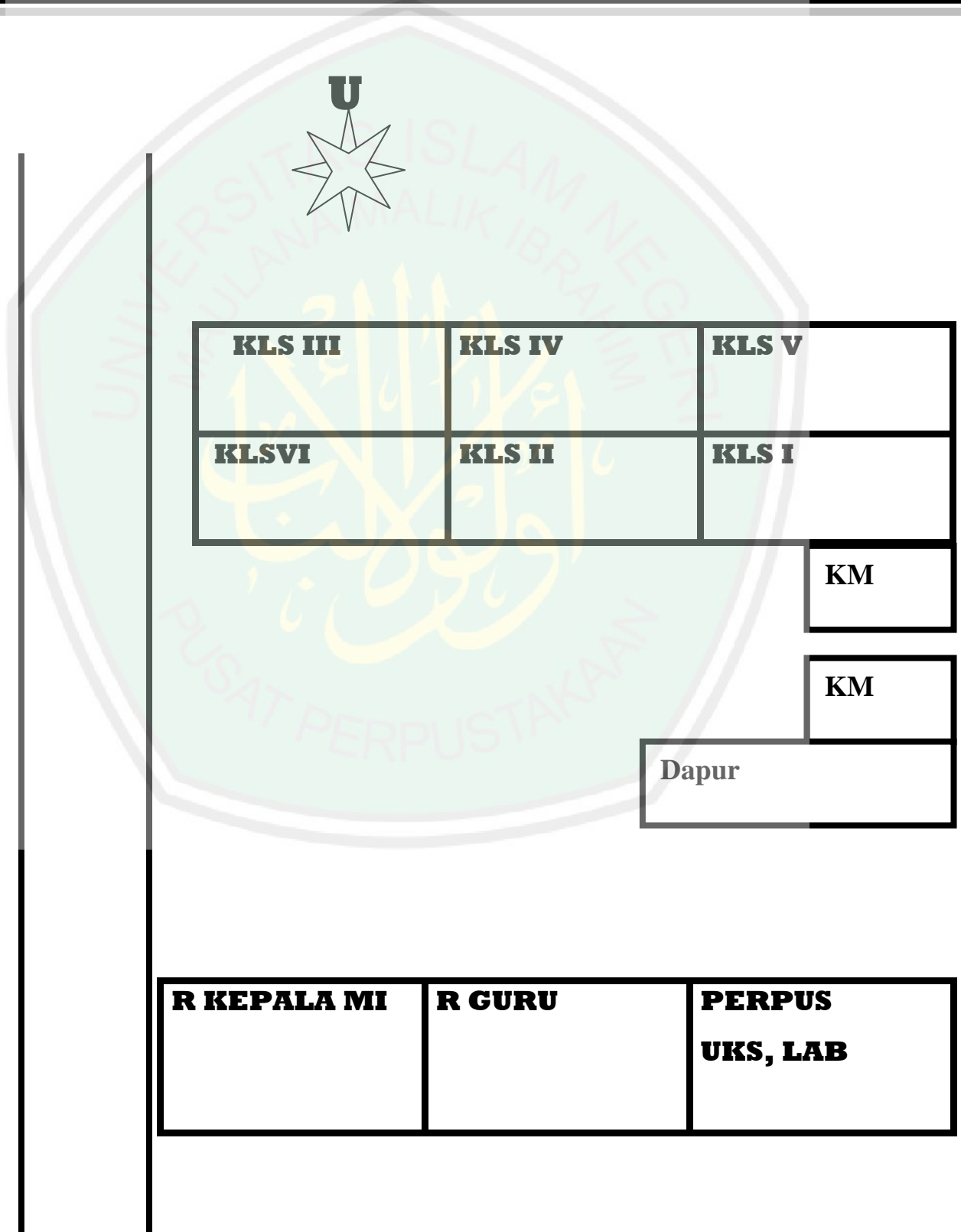
| WAKA. KURIKULUM Siti Khofifah, S.Pd.I | WAKA. KESISWAAN A. Fauzi, S.Pd. | WAKA. HUMAS Sujiono,S.Pd.I |

WALI KELAS
I , II , III , IV , V , VI

SISWA/SISWI
I , II , III , IV , V , VI

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STRUKTUR ORGANISASI MADRASAH IBTIDAIYAH MIFTAHUL ULUM
BATURETNO SINGOSARI

Kepala Madrasah	Komite Madrasah
Abdul Rokhim,S.Pd.I	Drs.Mat Husein

Unit Perpustakaan	Tata Usaha
Siti Khofifah	Hayantik,S.Ag

Guru Kls 1	Guru Kls 2	Guru Kls 3	Guru Kls 4	Guru Kls 5	Guru Kls 6
Dra. Hj Siti Masruro	Zulkoidah,S.Pd.I	Muthomimah,S.Pd.I	Heri Kinarsono,S.Pd	Chusnul Chotimah,S.Ag	Siti Khofifah,S.Pd.I

UKS	HUMAS	SARANA	KESISWAAN	KOPERASI	KURIKULUM
Akhmad Fauzi,S.Pd	Hayantik,S.Ag	Heri Kinarsono,S.Pd	Dra. Hj Siti Masruro	Chusnul Chotimah,S.Ag	Siti Khofifah,S.Pd.I

Gr. Agama	Gr. Olahraga	Gr. B.Inggris	Gr. Muatan Lokal	Gr.Kesenian	Bendahara
Abdul Ghofur,S.Pd.I	Akhmad Fauzi,S.Pd	Farid Choirul Anam	Chusnul Chotimah,S.Ag	Chusnul Chotimah,S.Ag	Siti Khofifah,S.Pd.I

Penjaga

Siswa

Masyarakat Sekolah

Garis Komando
Garis Koordinasi

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APPENDIX V

KEHADIRAN SISWA PADA MATA PELAJARAN IPA

KELAS V TAHUN PELAJARAN 2012/2013

NO	Nama	September				JUMLAH		
		Tanggal				S	I	A
		3	5	6	10			
1	A.Agung Saputra	√	√	√	√	-	-	-
2	M. Khoirul Ilmi	√	√	√	√	-	-	-
3	Moh. Rizal Habibi	S	√	√	√	1	-	-
4	Moh. Arifin	√	√	√	√	-	-	-
5	Rofi'udin	√	√	√	√	-	-	-
6	Andi Muhammad Amin	√	√	√	√	-	-	-
7	Ayu Putri Winda Sari	√	√	√	√	-	-	-
8	Amirul Nurazizul Q.	√	√	√	√	-	-	-
9	Bima Saputra Jaya	√	√	√	√	-	-	-
10	Dina Sofiyana	√	√	√	√	-	-	-
11	M. Heru Prayogo	√	√	√	√	-	-	-
12	Himma Zakiyah	S	√	√	√	1	-	-
13	Khoirun Nisak	√	√	√	√	-	-	-
14	Laili Faridatul H.	√	√	√	√	-	-	-
15	Maratus Sholiqah	√	√	√	√	-	-	-
16	M. Fais Setia Budi	S	√	√	√	1	-	-
17	M. Farisqi	√	√	√	√	-	-	-
18	Maghfiro Risqi A	√	√	√	√	-	-	-
19	M. Fathul Rohman	√	√	√	√	-	-	-
20	M. Shokhibul Kahfi	√	√	√	√	-	-	-
21	M. Nur Ilyas	√	√	√	√	-	-	-
22	M. Teguh Hermawan	√	√	√	√	-	-	-
23	M. Rizal Ramadhon	√	√	√	√	-	-	-
24	Nofa Dwi Ratna	√	√	√	√	-	-	-
25	Sindi Diyah N.	√	√	√	√	-	-	-
26	Zainur Rozikin	S	√	√	√	1	-	-
27	Yogi Ananda	√	√	√	√	-	-	-

APPENDIX VI

The result of students'achievement science in the fifth grade at MI Miftahul Ulum Malang

Passing grade of Pre test is 65 from 100 score
Passing grade of C1 and C2 is70 from 100 score

No.	Name	Cognitive			Psychomotor	Affective	Average
		Pre	C1	C2			
1.	A.Agung Saputra	43	50	70	80	90	73
2.	M. Khoirul Ilmi	45	75	65	65	70	69
3.	Moh. Rizal Habibi	65	-	82	80	80	81
4.	Moh. Arifin	78	75	70	85	70	75
5.	Rofi'udin	45	50	50	80	70	63
6.	Andi Muhammad Amin	45	100	75	80	90	86
7.	Ayu Putri Winda Sari	58	100	100	80	90	93
8.	Amirul Nurazizul Q.	68	50	75	80	90	74
9.	Bima Saputra Jaya	55	25	62	80	90	64
10.	Dina Sofiyana	53	50	87	85	90	78
11.	M. Heru Prayogo	25	75	50	85	90	75
12.	Himma Zakiyah	50	-	62	80	90	77
13.	Khoirun Nisak	70	100	100	80	90	93
14.	Laili Faridatul H.	63	100	50	80	90	80
15.	Maratus Sholiqah	85	75	87	85	90	84
16.	M. Fais Setia Budi	48	-	75	60	70	68
17.	M. Farisqi	70	100	87	85	90	91
18.	Maghfiro Risqi A	58	75	75	80	80	78
19.	M. Fathul Rohman	23	50	70	75	70	66
20.	M. Shokhibul Kahfi	65	100	100	80	80	90
21.	M. Nur Ilyas	43	50	50	70	80	63
22.	M. Teguh Hermawan	60	75	82	80	80	79
23.	M. Rizal Ramadhon	83	50	87	85	90	78
24.	Nofa Dwi Ratna	70	100	100	80	90	93
25.	Sindi Diyah N.	85	75	87	85	90	84
26.	Zainur Rozikin	78	-	70	75	70	72
27.	Yogi Ananda	55	75	82	85	80	81
Average		58,74	70,65	75,92			78
Precentage		48%	65%	74%	92,6%	100%	78%

APPENDIX VII

The results can lead to be improvement, and changing from the previous situation, the researchers used the formula.

$$P = \frac{post\ test - pre\ test}{Pre\ test} \times 100\%$$

Note:

P   = Raising percentage
Post test   = average value after research
Pre test   = average value before research

No.	Nama Siswa	Score	
		Pre	Post
1.	A.Agung Saputra	43	70
2.	M. Khoirul Ilmi	45	65
3.	Moh. Rizal Habibi	65	82
4.	Moh. Arifin	78	70
5.	Rofi'udin	45	50
6.	Andi Muhammad Amin	45	75
7.	Ayu Putri Winda Sari	58	100
8.	Amirul Nurazizul Q.	68	75
9.	Bima Saputra Jaya	55	62
10.	Dina Sofiyana	53	87
11.	M. Heru Prayogo	25	50
12.	Himma Zakiyah	50	62
13.	Khoirun Nisak	70	100
14.	Laili Faridatul H.	63	50
15.	Maratus Sholiqah	85	87
16.	M. Fais Setia Budi	48	75
17.	M. Farisqi	70	87
18.	Maghfiro Risqi A	58	75
19.	M. Fathul Rohman	23	70
20.	M. Shokhibul Kahfi	65	100
21.	M. Nur Ilyas	43	50
22.	M. Teguh Hermawan	60	82
23.	M. Rizal Ramadhon	83	87
24.	Nofa Dwi Ratna	70	100
25.	Sindi Diyah N.	85	87
26.	Zainur Rozikin	78	70
27.	Yogi Ananda	55	82
Jumlah rata-rata		58,74	75,92
Persentase kelulusan		48%	74%

So, P   = $\frac{75,\ 92 - 58,74}{58,74} \times 100\%$

        = 29%

APPENDIX VIII

Hasil Penilaian Kelompok Proses Pengamatan Sikap Selama Proses

Pembelajaran

❖ **Kriteria Penilaian**

1. Produk

No.	Aspek	Kriteria	Skor
1.	Konsep	* semua benar	4
		* sebagian besar benar	3
		* sebagian kecil benar	
		* semua salah	2
			1

2. Performance

No.	Aspek	Kriteria	Skor
1.	Kerjasama	* bekerjasama	3
		* kadang-kadang	2
		kerjasama	1
		* tidak bekerjasama	
2.	Partisipasi		
		* aktif berpartisipasi	3
		* kadang-kadang aktif	2
		* tidak aktif	1

3. Lembar Penilaian

No	Nama Siswa	Performance		Produk	Jumlah Skor	Nilai
		Kerjasama	Partisipasi			
1.	A.Agung S.	3	3	3	9	90
2.	M. Khoirul Ilmi	2	2	2	6	60
3.	M. Rizal Habibi	2	3	3	8	80
4.	Moh. Arifin	2	2	3	7	70
5.	Rofi'udin	2	2	2	6	60
6.	Andi M. Amin	3	3	2	8	80

7.	Ayu Putri Winda Sari	3	3	2	8	80
8.	Amirul Nurazizul Q.	3	3	2	8	80
9.	Bima Saputra Jaya	3	3	3	9	90
10.	Dina Sofiyana	3	3	2	8	80
11.	M. Heru Prayogo	3	3	2	8	80
12.	Himma Zakiyah	3	3	3	9	90
13.	Khoirun Nisak	3	3	3	9	90
14.	Laili Faridatul H.	3	3	3	9	90
15.	Maratus Sholiqah	3	3	4	10	100
16.	M. Fais Setia Budi	2	2	2	6	60
17.	M. Farisqi	3	3	4	10	100
18.	Maghfiro Risqi A	2	3	2	7	70
19.	M. Fathul Rohman	2	2	2	6	60
20.	M. Shokhibul Kahfi	2	3	3	8	80
21.	M. Nur Ilyas	2	3	2	7	70
22.	M. Teguh Hermawan	2	3	2	7	70
23.	M. Rizal Ramadhon	3	3	4	10	100
24.	Nofa Dwi Ratna	3	3	2	8	80
25.	Sindi Diyah N.	3	3	4	10	100
26.	Zainur Rozikin	2	2	3	7	70
27.	Yogi Ananda	3	3	3	9	90

Nilai = Jumlah skor yang diperoleh X 10

jumlah skor maksimal .

APPENDIX IX

INSTRUMEN DOKUMENTASI

Untuk melengkapi data-data yang penulis perlukan dalam penelitian ini,

maka penulis juga menggunakan dokumentasi yang memuat hal-hal sebagai

berikut:

1. Profil MI Miftahul Ulum Singosari Malang

2. Visi, Misi, tujuan, dan Motto MI Miftahul Ulum Singosari Malang

3. Daftar guru dan karyawan MI Miftahul Ulum Singosari Malang

4. Daftar siswa kelas 5 MI Miftahul Ulum Singosari Malang

5. Sarana dan prasarana MI Miftahul Ulum Singosari Malang

6. Denah sekolah MI Miftahul Ulum Singosari Malang

7. Photo lokasi sekolah

8. Photo kegiatan Pembelajaran

APPENDIX X

INTERVIEW GUIDE

Interview to the Student

1. Kamu senang dengan pelajaran IPA?
2. Kalau kerja kelompok ikut mengerjakan tidak?
3. Kamu lebih suka belajar sendiri atau berkelompok?
4. Belajat mandiri suka apa tidak atau lebih memilih bu guru yang menerangkan?
5. Bagaimanakah perasaan kalian setelah mengikuti pembelajaran dengan menggunakan team assisted individualization?

Interview to the Teacher

1. Bagaimana keadaan siswa kelas 5?
2. Pada kompetensi apakah siswa sulit untuk mencapainya?
3. Apakah team assisted individualization memungkinkan untuk diterapkan untuk kelas ini?
4. Apakah sebelumnya juga pernah menggunakan metode pengajaran individual?
5. Apakah nilai siswa sudah tuntas 100%?

APPENDIX XI

Paper of Teacher's Observation

No.	The aspects is observed	Score			
		1	2	3	4
1.	Introduction 1.The teacher conveys the learning purpose. 2.The teacher encourages the students to conduct the science learning with some questions related to their primary experience.				
2.	Learning activities a. The teacher divides heterogeneous group which consist of five to six students. b. The teacher gives a placement test at the beginning of program. c. The teacher divides homogeneous group which consist of students who have same academic capability. d. The teacher prepares the guided book. e. The teacher chooses one student who is as supervisor of each group. f. The teacher controls of the homogeneous group. g. The teacher helps of individual when the student faces difficult material. h. Teacher keeps score group. This score bases on the average unit by each member of the group. i. Teacher teaches the whole class and masters the skills of everyday problems. j. The teacher gives conclusion of the material.				
3.	The teacher manages time efficiently learning process.				
4.	Good performance from the teacher				
5.	Enthusiasm the teacher is in the learning process.				

Note:

1 = less   3 = good enough
2 = enough   4 = very good

APPENDIX XII

Paper observation the activities of students

Variables	Indicator	Score											
		Pre test				Cycle I				Cycle II			
		4	3	2	1	4	3	2	1	4	3	2	1
Enthusiasm	1. Showing the desire in the lesson 2. Enthusiasm doing the task 3. Doing the task in time 4.Pay attention to the teacher												
Cooperation	1.Helping the other friends 2.Active participation												
Creativities	1.Answering the question from the teacher 2.Asking difficult question.												

Note:

1. = less   3 = good enough
2. = enough   4 = very good

APPENDIX XIII

ANGKET RESPON SISWA

Nama : …………………………………………………..

Petunjuk:

1. Berilah tanda cek (√) pada kolom yang sesuai dengan jawabanmu.

2. Jawablah pertanyaan sesuai dengan keadaan sesungguhnya.

No.	Uraian	Jawaban				
		SS	S	R	TS	STS
1.	Proses pembelajaran IPA yang saya alami dengan menggunakan metode *TAI* selama ini sangat menyenangkan.					
2.	Saya merasa sangat termotivasi dengan metode *TAI* yang baru diberikan guru IPA					
3.	Saya selalu bersemangat ketika pembelajaran IPA dengan menggunakan metode *TAI* berlangsung					
4.	Menurut saya media pembelajaran IPA yang digunakan guru sangat bervariasi					
5.	Unit pembelajaran menarik					

Keterangan:

SS: Sangat Setuju

S: Setuju

R: Ragu-ragu

TS: Tidak Setuju

STS: Sangat Tidak Setuju

**Daftar Tanggapan Siswa Terhadap Penerapan Pembelajaran dengan Metode
Team Assisted Individualization**

No. Soal	Jawaban	Frekuensi	Persen
1	Sangat Setuju	15	55%
	Setuju	8	30%
	Ragu-ragu	4	15%
	Tidak Setuju	-	-
	Sangat Tidak Setuju	-	-
2	Sangat Setuju	25	93%
	Setuju	2	7%
	Ragu-ragu	-	-
	Tidak Setuju	-	-
	Sangat Tidak Setuju	-	-
3	Sangat Setuju	16	59%
	Setuju	8	30%
	Ragu-ragu	3	11%
	Tidak Setuju	-	-
	Sangat Tidak Setuju	-	-
4	Sangat Setuju	4	15%
	Setuju	20	74%
	Ragu-ragu	3	11%
	Tidak Setuju	-	-
	Sangat Tidak Setuju	-	-
5	Sangat Setuju	27	100%
	Setuju	-	-
	Ragu-ragu	-	-
	Tidak Setuju	-	-
	Sangat Tidak Setuju	-	-

Hasil angket di atas diisi oleh 27 siswa kelas 5 MI Miftahul Ulum Singosari Malang

APPENDIX XIV

Rencana Pelaksanaan Pembelajaran (RPP)

Sekolah   : MI Miftahul Ulum

Kelas / Smester   : 5 / Semester I

Pertemuan   : 4 x Pertemuan

Alokasi Waktu   : 2 x 35 Menit

Mata Pelajaran   : Ilmu Pengetahuan Alam

Tanggal   : 3 -10 September 2012

A. Standar Kompetensi

  1. Mengidentifikasi fungsi organ tubuh manusia dan hewan

B. Kompetensi Dasar

  1.3 Mengidentifikasi fungsi organ pencernaan manusia dan hubungannya dengan makanan dan kesehatan

C. Indikator

- Mengidentifikasi fungsi rongga mulut, kerongkongan, lambung, usus halus dan usus besar

- Menyebutkan gangguan pada alat pencernaan makanan yang berhubungan dengan makanan dan tata cara makanan

- Mengidentifikasi fungsi dari karbohidrat, protein, lemak, air, mineral dan protein serta menyebutkan sumbernya

- Memahami menu makanan yang bergizi seimbang (empat sehat lima sempurna) dan cara mengolah bahan makanan dengan benar

D. Tujuan Pembelajaran

- Siswa dapat mengidentifikasi fungsi rongga mulut, kerongkongan, lambung, usus halus dan usus besar dengan benar

- Siswa dapat menyebutkan gangguan pada alat pencernaan makanan yang berhubungan dengan makanan dan tata cara makanan dengan tepat

- Siswa dapat mengidentifikasi fungsi dari karbohidrat, protein, lemak, air, mineral dan protein serta menyebutkan sumbernya dengan tepat

- Siswa dapat memahami menu makanan yang bergizi seimbang (empat sehat lima sempurna) dan cara mengolah bahan makanan dengan benar

E. Karakter yang Diharapkan

Disiplin, Kerja keras, Kreatif, Demokratif , Rasa Ingin tahu, Kreatif, Bersahabat, Menghargai prestasi, Gemar membaca, Peduli lingkungan, Peduli sosial, Tanggung jawab.

F. Materi Pembelajaran
- Alat pencernaan makanan pada manusia

G. Metode Pembelajaran
- Cooperative Learning
- Metode TAI (Team assisted Individualization)
- Ceramah
- Tanya Jawab

H. Langkah-langkah Pembelajaran

Pertemuan I (3 September 2012)

No	Kegiatan Pembelajaran	Metode	Waktu
1.	Kegiatan Awal 1. Guru memberi salam dan membimbing siswa berdo'a. 2. Absensi kehadiran siswa. 3. Guru mengulang materi sebelumnya tentang alat pernapasan pada manusia. 4. Guru menyampaikan secara singkat kompetensi materi yang akan dipelajari dan tujuan pembelajaran.	Ceramah	10'

	Kegiatan Inti		
	❖ Eksplorasi		
	1. Guru membagi kelompok heterogrn yang beranggotakan 4-6 siswa		15'
	2. Guru memberi soal pre-test untuk menempatkan siswa pada kelompok homogen.		
	3. Guru membagi kelompok homogen yang anggotanya mempunyai kemampuan yang sama		
	4. Guru menyiapkan buku panduan TAI		
	5. Guru memberikan instruksi tentang langkah-langkah yang akan dilaksanakan		
	6. Guru memilih satu siswa untuk menjadi supervisor pada masing-masing kelompok.	TAI (Team Assisted Individua lization)	
	❖ Elaborasi		
	a. Siswa mendapatkan unit pembelajaran dari guru		
	b. Siswa mengerjakan soal-soal mandiri,di kelompok homogennya		25'
2	c. Siswa mengerjakan 4 soal pertama yang berhubungan dengan materi alat pencernaan manusia		
	d. Siswa mengoreksi jawaban teman lain dan memberi point.		
	e. Jika siswa dalam satu kelompok telah selesai mengerjakan test unit, maka supervisor meminta lembar jawaban pada guru untuk mencocokkan dengan teman lain.		
	f. Siswa mengerjakan soal-soal dari tes unit berikutnya hingga selesai sesuai dengan kemampuannya.	Tanya Jawab	
	g. Siswa bertanya pada guru jika ada kesulitan dalam pelajaran.		

			15'
	❖ Konfirmasi		
	1. Guru membantu siswa yang mempunyai kesulitan dalam belajara.		
	2. Guru menghitung skor dari kelompok-kelompok heterogen		
	3. Guru menghentikan program mandiri dan mengulas kesimpulan materi seluruh kelas.		

3.	Kegiatan Akhir
	  1. Siswa dan Guru membuat kesimpulan mengenai materi yang dipelajari.
	  2. Guru memberikan tugas kepada siswa untuk belajar materi berikutnya.
	  3. Siswa dan guru bersama-sama membaca Hamdalah
		Ceramah	5'

Pertemuan II (5 September 2012)

No	Kegiatan Pembelajaran	Metode	Waktu

1.	Kegiatan Awal
	  1. Guru memberi salam dan membimbing siswa berdo'a.
	  2. Absensi kehadiran siswa
	  3. Guru mengulang materi sebelumnya dan memberi motivasi siswa.
	  4. Guru Menyampaikan secara singkat kompetensi materi yang akan dipelajari dan tujuan pembelajaran.
		Ceramah	10'

2.	Kegiatan Inti ❖ Eksplorasi 1. Guru memberikan instruksi tentang langkah-langkah pembelajaran yang akan dilaksanakan di papan tulis	Tanya Jawab	15'

	2. Guru mengingatkan siswa tentang cara-cara melakukan individual program		
	3. Guru memberikan pertanyaan yang berkaitan dengan materi pencernaan manuasia.		
	❖ Elaborasi		
	1. Siswa memperhatikan penjelasan guru gangguan pada alat pencernaan makanan yang berhubungan dengan makanan dan tata cara makanan		
	2. Siswa berkumpul kembali dengan kelompok homogeny yang telah ditentukan guru pada pertemuan sebelumnya	TAI (Team Assisted Individualization)	25'
	3. Siswa mengerjakan soal-soal mandiri,di kelompok homogennya		
	4. Siswa saling mengoreksi jawaban teman lain dan memberi point.		
	5. Siswa mengerjakan soal-soal dari tes unit berikutnya hingga selesai sesuai dengan kemampuannya.		
	6. Siswa bertanya pada guru ketika mengalami kesulitan.		
	❖ Konfirmasi	Tanya Jawab	15'
	1. Guru bersama siswa mencocokkan jawaban serta membahas jawaban dari soal yang ada		
	2. Guru bertanya jawab tentang hal-hal yang belum diketahui siswa		
	3. Guru bersama siswa bertanya jawab meluruskan kesalahan pemahaman, memberikan penguatan dan penyimpulan		
3.	Kegiatan Akhir		
	1. Siswa dan Guru membuat kesimpulan mengenai materi yang dipelajari.	Ceramah	5'
	2. Guru memberikan tugas kepada siswa untuk		

	mempelajari materi za-zat makanan.		
	3. Siswa dan guru bersama-sama membaca Hamdalah		

Pertemuan III (6 September 2012)

No	Kegiatan Pembelajaran	Metode	Waktu
1.	**Kegiatan Awal** 1. Guru memberi salam dan membimbing siswa berdo'a. 2. Absensi kehadiran siswa 3. Guru Menyampaikan secara singkat kompetensi materi yang akan dipelajari dan tujuan pembelajaran.	Ceramah	05'
2.	**Kegiatan Inti** ❖ Eksplorasi 1. Guru memberikan pertanyaan pada siswa tentang makanan dan kesehatan. *Contoh :* - Makanan apa yang sehari-hari kalian makan? - Apa makanan yang anak-anak makan sudah mengandung zat-zat yang dibutuhkan tubuh?	Tanya Jawab	05'
	2. Guru memberikan instruksi tentang langkah-langkah pembelajaran yang akan dilaksanakan di papan tulis 3. Guru mengingatkan siswa tentang cara-cara melakukan individual program	Cooperative Learning	10'
	❖ Elaborasi a. Siswa memperhatikan penjelasan guru gangguan pada alat pencernaan makanan yang berhubungan dengan makanan dan tata cara makanan	Team Assisted	15'

	b. Siswa melakukan praktikum tentang zat-zat makanan yang mengandung karbohidarat, lemak, dan protein.	Individua lization	
	c. Siswa mendiskusikan hasil praktikum dengan kelompok heterogennya.		
	d. Siswa mengerjakan soal-soal mandiri,di kelompok homogennya kemudian saling mengoreksi jawaban teman lain dan memberi point.		
	e. Siswa bertanya pada guru ketika mengalami kesulitan.		15'
	❖ Konfirmasi		
	1. Siswa dan Guru bersama-sama mengoreksi hasil kerja kelompok siswa.		
	2. Guru menghentikan program mandiri dan mengulas kesimpulan materi seluruh kelas.	Tanya Jawab	
	Kegiatan Akhir		
	1. Siswa dan Guru membuat kesimpulan mengenai materi yang dipelajari.	Ceramah	5'
	2. Guru memberikan tugas kepada siswa untuk menguraikan zat-zat makanan, contoh, dan fungsinya.		
3.	3. Siswa mendapatkan tugas untuk membuat 1 pertanyaan dan 1 jawaban pada origami yang dibagikan dan menu gizi seimbang.		
	4. Siswa mendapat tugas kelompok untuk membuat paper sesuai dengan kreasi kelompok masing-masing.		
	5. Siswa dan guru bersama-sama membaca Hamdalah		

Pertemuan IV (10 September 2012)

No	Kegiatan Pembelajaran	Metode	Waktu
1.	**Kegiatan Awal** 1. Guru memberi salam dan membimbing siswa berdo'a. 2. Absensi kehadiran siswa 3. Guru Menyampaikan secara singkat kompetensi materi yang akan dipelajari dan tujuan pembelajaran.	Ceramah	05'
2.	**Kegiatan Inti** ❖ Eksplorasi 1. Guru menerankang tentang aturan pembelajaran yang kan dilaksanakan. 2. Guru memberi criteria kelompok yang yang mendapat score bagus atau kurang 3. Guru mempersilahkan kelompok yang akan mempresentasikan hasil kerjanya. 4. Guru menyuruh masing-masing kelompok untuk mengumpulkan tugas yang telah diberikan ❖ Elaborasi a. Siswa berkumpul dalam kelompok heterogen b. Masing-masing kelompok mempresentasikan hasil kerja kelompoknya di depan kelas c. Setelah semua kelompok presentasi. d. Setiap kelompok memperoleh kertas jawaban dan pertanyaan sesuai dengan jumlah anggota kelompok. e. Siswa mendiskusikan pertanyaan tersebut sebelum dimulai kuis. f. Satu kelompok memberi pertanyaan bergiliran dan siswa yang membawa jawaban wajib	Performance Cooperative learning Tanya Jawab	15' 25' 15'

	mengacungkan tangan agar mendapatkan point.		
	❖ Konfirmasi		
	1. Siswa dan Guru bersama-sama melakukan tanya jawab.		
	2. Guru menjelaskan materi agar tidak terjadi misconception.		
	3. Siswa menghitung semua jumlah point yang mereka peroleh untuk dijadikan nilai kelompok		
	4. Kelompok yang mendapat point terbanyak mendapatkan pernghargaan menjadi kelompok super.		
	5. Guru memberikan reward untuk nilai terbaik dan kelompok terbaik.		
3.	Kegiatan Akhir 1. Siswa dan Guru membuat kesimpulan mengenai materi yang dipelajari. 2. Siswa dan guru bersama-sama membaca Hamdalah	Ceramah	5'

I. Media dan Sumber Belajar
- Buku IPA Regina dan Yudistira kelas 5
- Buku unit pelajaran
- Kertas lipat
- Kertas asturo
- Lem
- Kertas origami
- Bahan-bahan untuk praktikum

J. Evaluasi
- Tes tulis
- Tes lisan

❖ Kriteria Penilaian

1. Produk (hasil diskusi)

No.	Aspek	Kriteria	Skor
1.	Konsep	* semua benar	4
		* sebagian besar benar	3
		* sebagian kecil benar	2
		* semua salah	1

2. Performance

No.	Aspek	Kriteria	Skor
1.	Kerjasama	* bekerjasama	4
		* kadang-kadang	2
		kerjasama	1
		* tidak bekerjasama	
2.	Partisipasi		4
		* aktif berpartisipasi	2
		* kadang-kadang aktif	1
		* tidak aktif	

3. Lembar Penilaian

No	Nama Siswa	Performan		Produk	Jumlah Skor	Nilai
		Kerjasama	Partisipasi			
1.						
2.						

CATATAN :

Nilai = (Jumlah skor : jumlah skor maksimal) X 10.

Malang, 03 September 2012

Mengetahui,

Kepala Sekolah   Guru IPA Kelas V

(Abdul Rokhim, SPDI)   (Siti Khofifah, SPDI)

APPENDIX XV

PRAKTIKUM

Tujuan : Mengetahui jenis makanan yang mengandung karbohidrat

Alat dan bahan:

1. Nasi
2. Roti
3. Pisang
4. Apel
5. Kentang
6. Tahu
7. Larutan yodium

Langkah kerja:

1. Untuk pengujian makanan yang padat sebaiknya digerus dahulu.
2. Teteskan larutan yodium pada masing-masing bahan makanan.
3. Apa yang terjadi? Adakah perubahan warna? Salinlah table berikut ini ke dalam buku tugas. Isikan hasil pengamatanmu pada table berikut ini.

No.	Jenis Makanan	Warna	
		Sebelum ditetesi Yodium	Sebelum ditetesi Yodium
1.	Nasi	Putih	Ungu kehitaman
2.	Roti	Putih	Ungu kehitaman
3.	Pisang	Kuning	Abu
4.	Apel	Putih	Putih
5.	Kentang	Kuning	Biru kehitaman
6.	Tahu	Putih	Putih

4. Coba kamu simpulkan dan diskusikan dengan temanmu jenis makanan apa saja yang mengandung karbohidrat? Nasi, roti, kentang mengandung karbohidrat.

Catatan: jika warnanya berubah menjadi biru tua iini menandakan makanan mengandung karbohidrat

APPENDIX XVI

Nama:

Menu Makanan Bergizi Seimbang Hari ini!

Makan Pagi	
Makan siang	
Makan malam	

Nama:

Menu Makanan Bergizi Seimbang Hari ini!

Makan Pagi	
Makan siang	
Makan malam	

APPENDIX XVII

ENZIM GROUP

ENZIM AMILASE

1. Sindi Diyah N.
2. Laili Faridatul H.
3. Zainur Rozikin
4. A.Agung Saputra
5. M. Khoirul Ilmi
6. M. Fathul Rohman

ENZIM RENIN

1. Maratus Sholiqah
2. Ayu Putri Winda Sari
3. Amirul Nurazizul Q.
4. Rofi'udin
5. M. Fais Setia Budi

ENZIM TRIPSIN

1. M. Rizal Ramadhon
2. Nofa Dwi Ratna
3. M. Shokhibul Kahfi
4. Moh. Arifin
5. Maghfiro Risqi A.
6. Yogi Ananda

ENZIM PEPSIN

1. Himma Zakiyah
2. Moh. Rizal Habibi
3. Andi Muhammad Amin
4. M. Teguh Hermawan
5. M. Nur Ilyas

ENZIM LIPASE

1. M. Farisqi
2. Khoirun Nisak
3. Bima Saputra Jaya
4. Dina Sofiyana
5. M. Heru Prayogo

APPENDIX XVIII

PLACEMENT TEST GROUP

KARBOHIDRAT

1. M. Rizal Ramadhon
2. Sindi Diyah N.
3. M. Farisqi
4. Maratus Sholiqah
5. Himma Zakiyah
6. Laili Faridatul H.

MINERAL

1. Rofi'udin
2. M. Heru Prayogo
3. M. Fais Setia Budi
4. M. Nur Ilyas
5. M. Fathul Rohman

PROTEIN

1. Nofa Dwi Ratna
2. Zainur Rozikin
3. M. Shokhibul Kahfi
4. Khoirun Nisak
5. Ayu Putri Winda Sari
6. Moh. Rizal Habibi

LEMAK

1. Andi Muhammad Amin
2. Bima Saputra Jaya
3. Amirul Nurazizul Q.
4. Moh. Arifin
5. Dina Sofiyana

VITAMIN

1. A.Agung Saputra
2. Maghfiro Risqi A.
3. M. Teguh Hermawan
4. M. Khoirul Ilmi
5. Yogi Ananda

APPENDIX XIX

The Picture of Any Kind Foods

APPENDIX XX

Nama   :

Kelompok   :

Mulut

Kerongkongan

Lambung

Usus halus

Usus besar

Anus

ALAT PENCERNAAN MANUSIA

Tugas pencernaan adalah

- Melumatkan makanan
- Menyerap dan mengedarkan sari makanan
- Mengeluarkan sisa makanan yang tidak dibutuhkan tubuh

Makanan yang kita makan akan dicerna oleh alat-alat pencernaan hingga menghasilkan zat-zat makanan yang dapat diserap tubuh.

1. Mulut

Proses pencernaan pertama kali terjadi di dalam rongga mulut. Di dalam rongga mulut makanan dihancurkan oleh gigi, lidah, dan kelenjar air ludah. Pada rongga mulut terjadi proses pencernaan secara mekanis dan kimiawi. Secara mekanis makanan dikunyah dan dilumatkan oleh gigi dibantu oleh lidah.

a. Gigi manusia terdiri atas gigi seri, gigi taring, dan gigi geraham.

(a) Gigi susu, (b) gigi dewasa

gigi seri
gigi taring
gigi geraham

gigi seri
gigi taring
gigi geraham depan
gigi geraham belakang

(a) Gigi seri, (b) gigi taring, (c) gigi geraham depan, dan (d) gigi geraham belakang

Gigi anak-anak disebut gigi susu karena bersifat sementara dan masih mengalami pergantian.

Bagian-bagian gigi:

Macam gigi	Anak	Dewasa
Gigi seri	8	8
Gigi taring	4	4
Gigi geraham depan	8	8
Gigi geraham belakang	-	12
Jumlah	20	32

1. Gigi seri berbentuk pahat berfungsi untuk memotong makanan.

2. Gigi taring berbentuk lancip dan runcing, berfungsi untuk merobek makanan.

3. Gigi geraham berbentuk rata bergerigi, berfungsi untuk mengunyah makanan.

b. Lidah

Lidah sebagai indera pengecap, selain itu dalam proses percernaan lidah berfungsi mengatur letak makanan agar mudah dikunyah dan membantu menelan makanan.

Rasa pahit   : bagian pangkal lidah

Rasa manis   : bagian ujung lidah

Rasa asam   : bagian samping depan

Rasa asin   : bagian samping belakang

c. Kelenjar Ludah

Secara kimiawi makanan tercampur dengan air liur yang mengandung enzim ptyalin (amylase). Enzim ini dihasilkan kelenjar air liur berfungsi mengubah makanan yang mengandung karbohidrat menjadi zat gula.

2. Kerongkongan

Kerongkongan menghubungkan rongga mulut dengan lambung. Di dalam kerongkongan terjadi gerakan peristaltik yaitu gerakan mendorong dan meremas pada dinding kerongkongan agar masuk ke lambung.

3. Lambung

Dalam lambung, makanan mengalami proses pencernaan dan kimiawi. Secara mekanis makanan digiling oleh dinding lambung. Secara kimiawi makanan dicampur dengan getah lambung yang mengandung asam lambung (HCL) berfungsi membunuh kuman penyakit, enzim pepsin dan enzim renin. Makanan berada dalam lambung selama 3-4 jam.

4. Usus Halus

Usus halus berfungsi mencerna makanan secara kimiawi dan menyerap sari-sari makanan. Ada tiga bagian yaitu usus 12 jari, usus kosong, dan usus penyerapan.

a. Usus 12 jari (duodenum)

Disini, makanan dicerna dengan bantuan getah pankreas dan empedu. Getah pankreas dihasilkan oleh kelenjar pankreas, sedangkan empedu dihasilkan oleh hati. Getah empedu berguna untuk menghancurkan lemak. Getah pankreas mengandung enzim yaitu:

➤ Enzim Amilase berfungsi mengubah zat tepung menjadi zat gula.

➤ Enzim Tripsin berfungsi mengubah protein menjadi asam amino

➤ Enzim Lipase berfungsi mengubah lemak menjadi asam lemak.

Hati berfungsi untuk menawarkan racun, penghasil getah empedu, pengatur suhu tubuh,

b. Usus Kosong (jejenum)

Usus kosong terjadi pencernaan kimiawi. Dinding usus kosong mempunyai kelenjar yang menghasilkan getah pencernaan.

c. Usus penyerapan (ileum)

Usus penyerapan adalah tempat penyerapan sari–sari makanan oleh jonjot–jonjot usus halus atau villi yang membuat sari makanan terserap lebih banyak dan lebih cepat. Kemudian diedarkan ke seluruh tubuh.

5. Usus Besar

Sisa makanan dibusukkan oleh bakteri E. Coli. Usus besar berfungsi mengatur keadaan air dan sisa-sisa makanan.

6. Anus

Proses pencernaan berakhir di anus sebagai tempat keluarnya feses.

MENJAGA KESEHATAN ALAT PENCERNAAN MANUSIA

Gangguan penyakit pada alat pencernaan:

1. Sariawan disebabkan kekurangan vitamin C, alergi makanan pedas, dan kurang menjaga kebersihan mulut.
2. Sakit gigi karena gigi terserang kuman dari sisa makanan yang menempel pada gigi. Maka kita harus menggosok gigi setelah makan dan sebelum tidur,
3. Sakit mag dikarenakan makan tidak teratur.
4. Diare disebabkan oleh bakteri yang masuk bersama makanan dan disarankan minum oralit.
5. Tipus yakni peradangan pada usus halus dikarenakan mengkonsumsi makanan dan minuman tidak bersih.
6. Sembelit, susah buang air besar karena kurang makanan berserat.

Cara menjaga alat pencernaan:

1. Menjaga kebersihan makanan dan minuman
2. Mencuci tangan sebelum makan

3. **Makan teratur** 3 kali sehari
4. Menghindari makanan yang **terlalu panas atau terlalu dingin**
5. **Menggosok gigi setelah makan dan sebelum tidur,**
6. Makan makanan **bergizi dan seimbang**.

CARA MENGGOSOK GIGI

Mari Mencoba!

Berilah tanda silang pada jawaban paling tepat!

POINT:

1. Urutan saluran pencernaan manusia yang benar adalah….
   a. Mulut-tenggorokan-usus halus-usus besar-lambung-anus
   b. Mulut-kerongkongan-usus besar-lambung-usus halus-anus
   c. Mulut-tenggorokan-lambung-usus halus-usus besar-anus
   d. Mulut-kerongkongan-lambung-usus halus-usus besar-anus
2. Fungsi lidah dalam proses pencernaan adalah…
   a. Mengoyak makanan   c. Menyerap sari-sari makanan
   b. Mengatur suhu tubuh   d. Membantu menelan makanan
3. Gigi yang berfungsi merobek makanan adalah….
   a. Gigi seri   c. Gigi taring
   b. Gigi geraham depan   d. Gigi geraham belakang
4. Enzim yang berperan dalam pencernaan kimiawi di dalam mulut adalah…
   a. Ptyalin   b. Tripsin   c. Lipase   d. Renin

Mari Mencoba!

Berilah tanda silang pada jawaban paling tepat!

1. Cairan empedu dihasilkan oleh….
   a. Empedu   b. Pankreas   c. Hati   d. Lambung
2. Getah pancreas mengandung enzim…
   a. Amilase, pepsin, rennin   c. Amilase tripsin, lipase
   b. Pepsin, renin, tripsin   d. HCL, amilase, lipase
3. Penyerapan sari-sari makanan terjadi di….
   a. Gigi   b. Lambung   c. Usus halus d. Usus besar
4. Berikut ini adalah fungsi hati, kecuali…
a. Mengatur suhu tubuh   c. Menawarkan racun
b. Menghasilkan getah empedu   d. Menghancurkan lemak
c.

Saya Bisa!

1. Fungsi gigi seri untuk….
2. Bagian lidah mengecap rasa manis adalah….
3. Gerak pada kerongkongan disebut….
4. Gigi geraham berfungsi untuk….
5. Membunuh kuman penyakit di lambung adalah….
6. Getah empedu berguna untuk….
7. Enzim yang berfungsi mengubah protein menjadi asam amino adalah….
8. Enzim yang berfungsi mengubah lemak menjadi asam lemak adalah….
9. Bakteri yang membantu pembusukan sisa makanan di usus besar adalah….
10. Tempat keluarnya feses adalah….

a. Gerak peristaltik   b. Asam lambung   c. menghancurkan lemak
   d. lipase
e. Tripsin   f. anus   g. mengunyah makanan
      h. E.Coli
i. Ujung lidah   j. Memotong makanan

Mari Mencoba!

Berilah tanda silang pada jawaban paling tepat!

POINT:

1. Alat pencernaan yang menghubungkan antara rongga mulut dan lambung adalah….
   a. Kerongkongan
   b. Tenggorokan
   c. Usus halus
   d. Usus besar
2. Di dalam rongga mulut dihancurkan oleh….
   a. Gigi, lidah, dan kelenjar ludah
   b. Gigi seri, taring, dan geraham
   c. Enzim amilase, tripsin, dan lipase
   d. HCL, pepsin, dan renin
3. Secara kimiawi makanan dicampur dengan getah lambung yang mengandung….
   a. HCL, pepsin, dan rennin
   b. Amilase, tripsin, dan lipase
   c. Pepsin, rennin, dan tripsin
   d. HCL, amylase, dan protease
4. Gigi yang berfungsi memotong makanan adalah….
   a. Gigi seri
   b. Gigi susu
   c. Gigi taring
   d. Gigi geraham

Mari mencoba!

POINT:

Di bawah imi adalah gambar lidah sebagai alat pengecap rasa pada bagian masing-masing, berilah nama rasa pada bagian yang bertanda!
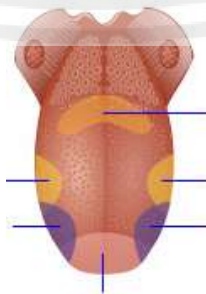
Saya Bisa!

Jawablah pertanyaan di bawah ini dengan tepat!

Sebutkan 5 penyakit gangguan alat pencernaan beserta penyebabnya!

1.

2.

3.

4.

5.

Bagaimana cara menjaga alat pencernaan?

1.

2.

3.

4.

5.

Nama Korektor:

MAKANAN DAN KESEHATAN

Makanan

Makanan bergizi

Makanan Seimbang

- ✱ Karbohidrat
- ✱ Protein
- ✱ Lemak
- ✱ Vitamin
- ✱ Mineral
- ✱ Air

Menu

Cara pengolahan

Manfaat makanan:

1. Sumber energi
2. Pertumbuhan dan pembangun tubuh
3. Mengganti sel–sel yang rusak
4. Pertahan tubuh dari gangguan penyakit
5. Mengatur metabolisme dan keimbangan cairan tubuh
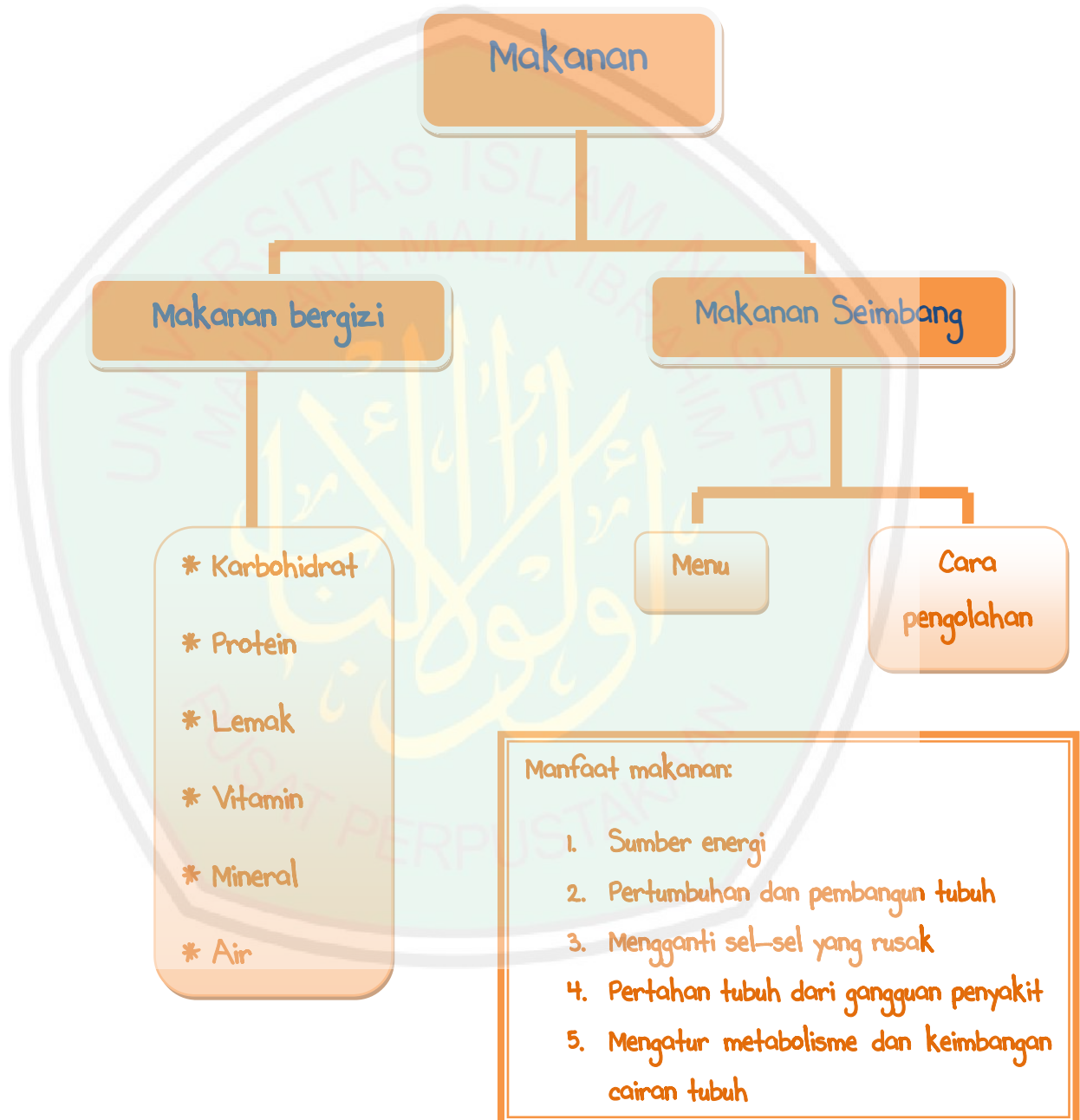
Makanan yang kita makan mengandung zat-zat yang diperlukan tubuh diantaranya karbohidrat, protein, lemak, vitamin, dan mineral.

1. Karbohidrat

Karbohidrat sebagai sumber tenaga dan mempertahankan susu tubuh. Makanan yang banyak mengandung karbohidrat yaitu nasi, jagung, roti, gandum, dan ketela pohon.

2. Protein

Protein sebagai zat pembangun untuk pertumbuhan dan mengganti sel-sel yang rusak. Protein nabati berasal dari tumbuhan yaitu tempe, tahu, kacang-kacangan. Protein hewani berasal dari hewan yaitu telor, ikan, daging, kerang dan udang.

3. Lemak

Lemak menghasilkan kalori terbanyak dibandingkan karbohidrat dan protein. Lemak merupakan cadangan tenaga, pelarut vitamin A, D, E, K, pelindung alat tubuh yang penting seperti jantung, pelindung tubuh dari kedinginan dan luka. Lemak nabati berasal dari tumbuhan yaitu kelapa, alpukat, kemiri, kacang tanah. Lemak hewani berasal dari hewan yaitu mentega, kuning telor, susu, daging, dan keju.

4. Vitamin

Vitamin berguna sebagai zat pengatur dan pelindung. Kekurangan vitamin dalam tubuh disebut avitaminosis.

Vitamin	Sumber bahan makanan	Kegunaan	Kekurangan
A	Sayuran, wortel tomat, pepaya, ikan, daging, hati, dan susu	Memelihara kesehatan mata, kulit, dan pertumbuhan.	Rabun senja, kulit kasar, peradangan pada mata, mudah lelah.
B	Beras merah, susu, keju, daging telur, kacang-kacangan	Metabolisme karbohidrat, menambah nafsu makan	Penyakit beri–beri, gangguan syaraf, pertumbuhan terhambat
C	Jeruk, mangga,	Mempertahankan	Skorbut (gusi

	nanas, cabe, dan jambu biji	kesehatan gusi dan daya tahan tubuh	berdarah), sariawan
D	Kuning telur, susu, ikan, mentega	Pembentukan tulang dan gigi.	Penyakit rakhitis dan osteoporosis
E	Kecambah, kubis, kangkung, bayam, biji-bijian, hati, dan daging	Menyuburkan rambut, menghaluskan kulit, dan pelindungkan sel darah merah	Pecahnya sel darah merah, penimbunan lemak pada otot, kemandulan
K	Kacang kedelai, kacang-kacangan, dan biji-bijian.	Membantu proses pembekuan darah.	Lambatnya penyembuhan luka, pendarahan

5. Mineral

Mineral sebagai pengatur tubuh. Kekurangan mineral menyebabkan defisiensi.

Mineral	Sumber bahan makanan	Kegunaan	Kekurangan
Kalsium	Keju, kerang, ikan, sayuran, bawang, dan susu	Pembentukan tulang dan gigi membantu pembekuan darah	Penyakit rakhitis, kerapuhan tulang dan gigi.
Fosfor	Ikan, kacang-kacangan, susu, keju, selada air	Pertumbuhan sel-sel dalam tubuh, pembentukan tulang, gigi	Hilang nafsu makan, penurunan berat badan
Besi	Sayuran hijau (bayam kangkung)	Membentuk sel darah merah	Anemia, lesu pusing pucat
Flour	Kuning telur, ikan laut, otak, susu	Daya tahan terhadap kerusakan gigi	Karies atau kerusakan pada gigi
Yodium	Ikan laut, garam beryodium	Pembentukan hormon tiroksin	Penyakit gondok

6. Air

Air sehat tidak berwarna dan tidak berbau, tubuh kita butuh air 8 gelas sehari. Fungsi air untuk melarutkan dan mengangkut zat-zat makanan serta menjaga keseimbangan suhu tubuh.

MAKANAN SEIMBANG DAN CARA PENGOLAHAN MAKANAN YANG SEHAT

Menu makanan bergizi seimbang disajikan dalam menu makanan 4 sehat 5 sempurna. Makan dengan menu makanan yang tidak bergizi seimbang menyebabkan penyakit malnutrisi (kelebihan atau kekurangan gizi). Jika kelebiha gizi menyebabkan obesitas (kegemukan).

Cara mengolah bahan makanan dengan benar yaitu memasak daging sampai matang agar bibit penyakit mati, memilih sayuran yang masih segar dan hijau, mencucinya dahulu, memasak sayur jangan terlalu matang agar nilai gizi tetap terjaga.

POINT:

I.   *Pilihlah salah satu jawaban yang paling benar!*
1.   Makanan yang banyak mengandung karbohidrat adalah . . . .
     a. Singkong
     b. Daging
     c. Tahu
     d. Sayuran
2. Makanan yang mudah dicerna oleh tubuh diantaranya sebagai berikut, *kecuali. . . .*
     a. Nasi
     b. Gandum
     c. Roti
     d. Kubis
3. Protein nabati banyak dikandung oleh bahan makanan di bawah ini, *kecuali . . . .*
     a. Roti
     b. Tempe
     c. Tahu
     d. Kacang kedelai
4. Penyakit yang disebabkan karena kekurangan vitamin C diantaranya adalah . . . .
     a. Rabun jauh
     b. Gusi berdarah
     c. Beri-beri
     d. Rakhitis
5. Pelarut vitamin A, D, E, K adalah . . . .

a. Lemak
b. Mineral
c. Protein
d. Karbohidrat

6. Pembentukan tulang dan gigi merupakan fungsi utama mineral . . . .
   a. Kalsium
   b. Yodium
   c. Natrium
   d. Zat besi

7. Garam beryodium sangat penting bagi kita, karena berguna untuk mencegah penyakit . . . .
   a. Beri-beri
   b. Rakhitis
   c. Gondok
   d. Gusi berdarah

8. Makanan yang sehat adalah makanan yang . . . .
   a. Bergizi
   b. Mahal
   c. Enak
   d. Murah

9. Rakhitis adalah penyakit karena kekurangan . . . .
   a. Vitamin A
   b. Vitamin B
   c. Vitamin C
   d. Vitamin D

10. Penggolongan makanan yang sehat adalah . . . .
    a. Diberi bumbu agar enak
    b. Memeasak sayuran agak lama
    c. Daging dimasak jangan terlalu matang
    d. Sayuran dimasak jangan terlalu matang

POINT:

Saya bisa!

1. Penyakit kekurangan vitamin disebut . . . .
2. Vitamin K berguna untuk . . . . dan . . . .
3. Vitamin harus ada di dalam tubuh walaupun dalam jumlah sedikit karena . . . .
4. Contoh makanan yang mengandung vitamin B adalah . . . .
5. Kekurangan vitamin C akan mengakibatkan penyakit . . . .

Kunci Jawaban

Unit Pencernaan

A.

1. D
2. D
3. C
4. A

B.

1. C
2. C
3. C
4. D

Formatif A

1. J
2. I
3. A
4. G
5. B
6. C
7. E
8. D
9. H
10. F

C.

1. A
2. A
3. A
4. A

B.

1. Bagian pangkal rasa pahit
2. Bagian ujung rasa manis
3. Bagian samping depan rasa asam
4. Bagian samping belakang rasa asin

Formatif B

1. Sariawan disebabkan kekurangan vitamin C, alergi makanan pedas, dan kurang menjaga kebersihan mulut.
2. Sakit mag dikarenakan makan tidak teratur.
3. Diare disebabkan oleh bakteri yang masuk bersama makanan dan disarankan minum oralit.
4. Sembelit, susah buang air besar karena kurang makanan berserat.
5. Tipus yakni peradangan pada usus halus dikarenakan mengkonsumsi makanan dan minuman tidak bersih.
6. Menjaga kebersihan makanan dan minuman
7. Makan teratur 3 kali sehari
8. Makan makanan bergizi dan seimbang.
9. Menghindari makanan yang terlalu panas atau terlalu dingin
10. Mencuci tangan sebelum makan

Kunci Jawaban

Unit Makanan

I.

1. A
2. D
3. A
4. B
5. A
6. A
7. C
8. A
9. D
10. D

II.

1. Avitaminosis
2. Pembekuan darah dan penyembuhan luka
3. Sebagai zat pengatur dan pelindung
4. Beras merah, susu, keju, daging, telur, kacang-kacangan
5. Sariawan dan gusi berdarah

APPENDIX XXI

MI MIFTAHUL ULUM SINGOSARI MALANG

School yard

Building School

Profil of Teacher

Teachers' room   **Principal room**

Ceremony on Monday September, 3rd, 2012

All of students at MI MIftahul Ulum Singosari Malang

5th Grade Students and the Teacher at MI Miftahul Ulum Singosari
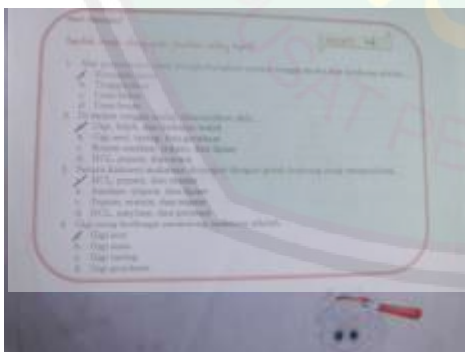
Team Assisted Individualization Method

Performance of Student

Product of Students

Students' woorsheet
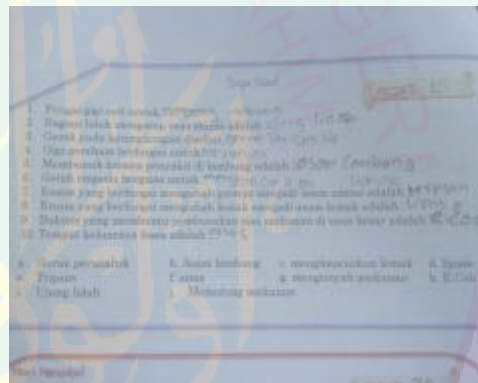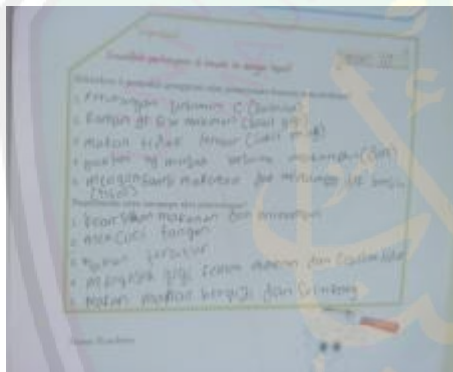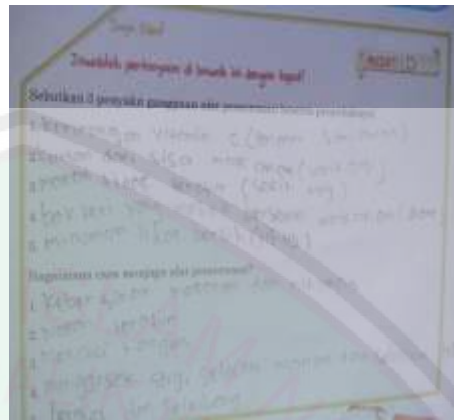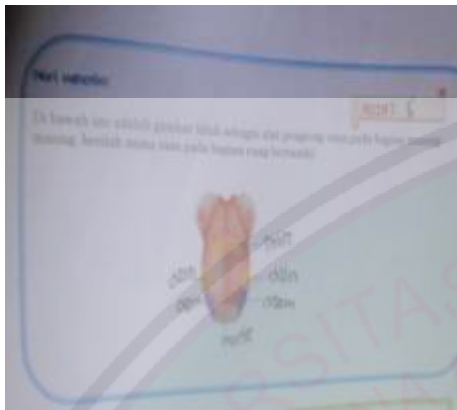
Appreciation Group

Ayu is the best Student

ENZIM AMILASE

Anggota Tim	A	B	C	D	E	F									Total
1. Sindi	3	3	10	3	6	10									35
2. Laili	4	1	10	3	6	10									34
3. Agung	2	2	9	4	6	10									33
4. Ilmi	3	2	8	4	6	10									33
5. Fathul	2	0	10	3	6	10									31
6. Rozikin	—	—	—	—	—	—									—
Total Score Tim	166														
Rata—rata Tim	33,2														
Penghargaan Tim	GOOD TEAM														

ENZIM LIPASE

Anggota Tim	A	B	C	D	E	F							Total
1. Faris	4	3	10	3	6	10							36
2. Bima	1	1	10	3	6	10							31
3. Heru	3	0	10	4	6	10							30
4. Dina	2	3	10	3	4	10							32
5. Nisak	4	4	10	4	6	10							38
6.													
Total Score Tim	167												
Rata-rata Tim	33,4												
Penghargaan Tim	GOOD TEAM												

ENZIM PEPSIN

Anggota Tim	A	B	C	D	E	F							Total
1. Andi	10	10	6	4	2	2							34
2. Yasa	2	0	10	3	6	10							31
3. Teguh	3	3	9	4	6	10							35
4. Rizal	2	3	10	4	6	10							35
5.													
6.													
Total Score Tim	135												
Rata-rata Tim	33, 75												
Penghargaan Tim	GREAT TEAM												

ENZIM RENIN

Anggota Tim	A	B	C	D	E	F								Total
1. Atus	3	3	10	2	6	10								34
2. Aya	4	4	10	4	5	10								38
3. Udin	2	1	10	4	6	10								33
4. Fais	3	1	10	3	6	10								33
5. Amik	2	2	10	3	6	10								33
6. Rizal R.														
Total Score Tim	171													
Rata-rata Tim	34,2													
Penghargaan Tim	GREAT TEAM													

ENZIM TRIPSIN

Anggota Tim	A	B	C	D	E	F						Total
1. Arfin	3	0	10	3	6	10						32
2. Kiki	3	2	10	3	6	10						36
3. Fifi	4	4	10	4	6	10						38
4. Yogi	3	3	9	4	6	10						35
5. Nova	4	4	10	4	6	10						38
6. Avi												
Total Score Tim	179											
Rata-rata Tim	35, 8											
Penghargaan Tim	SUPER TEAM											

Congratulations to a

SUPER TEAM

In recognition of a successful effort!

1. **M. Rizal Ramadhon**
2. **Nofa Dwi Ratna**
3. **M. Shokhibul Kahfi**
4. **Moh. Arifin**
5. **Maghfiro Risqi A.**
6. **Yogi Ananda**

_____

Team Member's Name

Cooperative Learning Team

Congratulations to a

GOOD TEAM

In recognition of a successful effort!

1. **Sindi Diyah N.**
2. **Laili Faridatul H.**
3. **Zainur Rozikin**
4. **A.Agung Saputra**
5. **M. Khoirul Ilmi**
6. **M. Fathul Rohman**

_____

Team Member's Name

Cooperative Learning Team

Congratulations to a

GOOD TEAM

In recognition of a successful effort!

1. **M. Farisqi**
2. **Khoirun Nisak**
3. **Bima Saputra Jaya**
4. **Dina Sofiyana**
5. **M. Heru Prayogo**

_____

Team Member's Name

Cooperative Learning Team

Congratulations to a

great TEAM

In recognition of a successful effort!

1. **Maratus Sholiqah**
2. **Ayu Putri Winda Sari**
3. **Amirul Nurazizul Q.**
4. **Rofi'udin**
5. **M. Fais Setia Budi**

_____

Team Member's Name

Cooperative Learning Team

Congratulations to a

In recognition of a successful effort!

1. **Himma Zakiyah**
2. **Moh. Rizal Habibi**
3. **Andi Muhammad Amin**
4. **M. Teguh Hermawan**
5. **M. Nur Ilyas**

_____

Team Member's Name

Cooperative Learning Team

APPENDIX XXIV

STUDENT PROFILE

Name   : Yanis Fitri Anggaeni

Student Identity Number (NIM)   : 09140009

Fac./ Dept./ Program of Study   : Tarbiyah   Faculty   /   Islamic   Elementary

Education

Enrollment Year   : 2009

Address   : St. Tanggul RT. 05 RW. 02 Wonoayu,

Sidoarjo

Telephone Number   : 081559932225

Malang, April 1th, 2013

Student

(Yanis Fitri Anggaeni)