THE IMPLEMENTATION OF VAK (VISUAL, AUDITORY, KINESTHETIC) MODEL THROUGH INTERACTIVE MULTIMEDIA TO IMPROVE STUDENTS' MOTIVATION ON NATURAL SCIENCE AT MADRASAH IBTIDAIYAH AL-FATTAH MALANG

THESIS

By:

Samrotul Fitriana

09140015

INTERNATIONAL CLASS PROGRAM (ICP)

ISLAMIC PRIMARY SCHOOL TEACHER EDUCATION PROGRAM

ISLAMIC PRIMARY SCHOOL TEACHER EDUCATION DEPARTEMENT

TARBIYAH FACULTY

STATE ISLAMIC UNIVERSITY OF MAULANA MALIK IBRAHIM

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TESIS

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 (S.PdI)

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APPROVAL SHEET

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DEDICATION

Along with gratitude to the god for all the prompts and intercession of his prophet, I dedicate this work in nothing else except for special people that I respect and obey, they are my beloved father and mother (Misdiono and Khasanah) your love and prayers are the glowing lantern in each of my struggle.

For All of My Family

Especially for my brother Ali Musafa' and his wife Lailatul Sulfriayati, my nephew Novia Lely Puspita and Keysa Arista Zahra, my Grand Father and Grand Mother, and all of my family who have given me spirit and motivation.

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All of my teacher and my lectures who have given me knowledge and experience

Thanks a lot to big family MI Al-Fattah, Mrs. Indah Sulistyaningtyas S.Pd and teachers who have given me time and confidence in my observation

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Thanks too all of my PPL's friends in MI Perwanida Blitar.

Thanks a lot to my advisor A.Nurul Kawakib, M.A,

Who have helps me to finish my thesis

MOTTO

إِنَّ ٱللَّهَ لَا يُغَيِّرُ مَا بِقَوۡمٍ حَتَّىٰ يُغَيِّرُواْ مَا بِأَنفُسِهِمۡۗ وَإِذَآ أَرَادَ ٱللَّهُ بِقَوۡمٖ سُوٓءٗا فَلَا مَرَدَّ لَهُۥۚ

وَمَا لَهُم مِّن دُونِهِۦ مِن وَالٖ ١١

Artinya : Sesungguhnya Allah tidak merobah Keadaan sesuatu kaum sehingga mereka merobah keadaan[768] yang ada pada diri mereka sendiri. dan apabila Allah menghendaki keburukan terhadap sesuatu kaum, Maka tak ada yang dapat menolaknya; dan sekali-kali tak ada pelindung bagi mereka selain Dia. (Ar-Ra'd :11)

Peoples that great in any work because they are not inspired, but they ***become inspired because they prefer to work. They do not waste time to wait for inspiration.***
(Ernest Newman)

A. Nurul Kawakib, M.A

The lecturer of Tarbiyah Faculty

The State Islamic University of Maulana Malik Ibrahim Malang

ADVISOR OFFICIAL NOTE

Matter : Samrotul Fitriana's thesis Malang, March, 28th, 2013

Appendixes : 4 (four) Exemplar

Dear

Dean of Tarbiyah Faculty

The State Islamic University of Maulana Malik Ibrahim

at

Malang

Assalumualaikum Wr.wb.

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

Name : Samrotul Fitriana

Student Number : 09140015

Department : Primary School Teacher

Thesis title : **The implementation of VAK (visual, auditory, kinesthetic) model through interactive multimedia to improve students' motivation on natural science 4th grade at MI Al-Fattah Malang.**

As the advisor, we argue that the thesis has been proposed and tested decent.

So, please tolerate presence.

Wassalamu'alaikum Wr. Wb.

Advisor

A. Nurul Kawakib, M.A

NIP : 197507312001121001

STATEMENT

I hereby declare, that in this paper there is no work that has proposed to acquire a degree at a university, and the best of my knowledge, there is also no work ever written or opinions of other, except that in writing referred in this manuscript and mentioned bibliography.

Malang, March, 24th 2013

Samrotul Fitriana

ACKNOWLEDGMENT

Alhamdulillah, all praises to Allah, the most Gracious and most Merciful who has given me guidance and blessing in fishing this thesis, entitled "*The implementation of VAK (visual, auditory, kinesthetic) model through interactive multimedia to improve students' motivation on natural science 4th grade at MI Al-Fattah Malang.* Shalawat and Salam are also delivered to the Prophet Muhammad SAW who has brought Islam as the rahmatan lil al-alamin.

This thesis focused on implementation of VAK (visual, auditory, kinesthetic) model through interactive multimedia. It was conducted to find out the effective, conspicuousness, and ease the use of interactive multimedia for 4th grade students at MI Al-Fattah Malang.

This author realizes that this writing can not be separated from the guidance, direction and constructive criticism for various parties. Therefore in this occasion the authors wants to thankful as much as possible and t he highest award to :

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2. Dr. H. M. Zainuddin, M.A as the Dean of Tarbiyah Faculty
3. Dr. Hj. Sulalah, M.Ag as the Head of Primary School Teacher Education Department.
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5. Misdiono and Khasanah (my beloved father and mother), who have educated with affection and preyed with sincere, and then the author can finish my study at the State Islamic University of Maulana Malik Ibrahim Malang.

6. All the lectures and staff of Tarbiyah Faculty at the State Islamic University of Maulana Malik Ibrahim Malang.
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The author knew that there are still deficiencies in the writing of this thesis. Therefore, the author hopes to the suggestion and constructive criticism from readers for future improvement. Finally, the author hopes this thesis can be beneficial and useful for all and for educational institutions.

Malang, March, 24th 2013

Author

TRANSLATION GUIDELINES OF ARAB LATIN

Translation of Arab Latin in this thesis use the translation guidelines based on the agreement between Religion Minister and Educational And Culture Minister of Indonesia number 158, 1987 and number 0543 b/U/1987. They are:

A. Huruf

ا = a	ز = z	ق = q
ب = b	س = s	ك = k
ت = t	ش = sy	ل = l
ث = ts	ص = sh	م = m
ج = j	ض = dl	ن = n
ح = h	ط = th	و = w
خ = kh	ظ = zh	ه = h
د = d	ع = ‘	ء = ,
ذ = dz	غ = gh	ي = y
ر = r	ف = f	

B. Vokal Panjang

Vokal (a) panjang = â

Vokal (i) panjang = î

Vokal (u) panjang = û

C. Vokal Diftong

اَو = aw

اَيْ = ay

اِىْ = û

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ABSTRAK

Fitriana, Samrotul. 2012: The Implementation of VAK (visual, auditory, kinesthetic) Model through Interactive Multimedia to Improve Students' Motivation on Natural Science at Madrasah Ibtidaiyah Al-Fattah Malang. Thesis, Program of Study Islamic Primary School Teacher Education, Tarbiyah Faculty, The State Islamic University of Maulana Malik Ibrahim Malang. Supervisor: A. Nurul Kawakib M.A.

Natural Science is a theoretical subject but the theory of science is based on the observations. Learning process that uses conventional strategies by using lecturing and catechizing method can affect the students' motivation. One teacher in the class is really difficult to manage large classes with a big number of students. Basically, every student's has a different ability to accept the material. For student's visual type, they will be easier to learn when to use graphics, pictures, charts, models and etc. For students' auditory type, they will be easier to learn by hearing the spoken. For students' kinesthetic type, they will be easy to learn while doing certain activities. To facilitate the students with various potential in learning process with the easy and achieve an optimal learning goal the teacher should recognize and understand the characteristic of all students in the class. After that, teachers can determine what media and model are used in learning to match the students' needed.

To response the problems above needs the models to be developed or appropriate media and effective learning. Further the researcher choose VAK model to facilitate the students' learning process. VAK (visual, auditory, kinesthetic) model is teaching models by using potential skill and develop the creativity of students'. VAK (visual, auditory, kinesthetic) model with interactive multimedia as a model of learning and alternative media that make learning more effective and fun is expected to enhance students' motivation in natural sciences subjects.

Based on the problems above the researcher wants to conduct the research to implement VAK (visual, auditory, kinesthetic) model through interactive multimedia to improve students' motivation on natural science 4th grade, especially in cycle of living thing material at MI Al-Fattah Malang. The objectives of study are (1) description of the planning process in implementing VAK (visual, auditory, kinesthetic) model through interactive multimedia; (2) description the process of implementation of VAK (visual, auditory, kinesthetic) through interactive multimedia; (3) description the assessment in implementing assessment VAK (visual, auditory, kinesthetic) model through interactive multimedia.

This research use classroom action research design with the type of independent research. A technique of data collection is conducted by using observation, interview and documentation. Qualitative data was analyzed by

descriptive qualitative analysis and quantitative data is analyzed by quantitative descriptive analysis.

Implementation of research is conducted twice, cycle I conducted on October, 22nd, 2012 and cycle II conducted on October, 25th, 2012 at 4th grade classroom with two meeting. Result of implementation VAK (visual, auditory, kinesthetic) model through interactive multimedia can improve the intention, spirit and motivation in learn natural science subject. Interactive multimedia also can make the students easy to understanding the material. There are five indicators to measure the students' motivation: (1) the liveliness in following lessons; (2) participation in the group; (3) motivation in exploring natural science subject; (4) an effort to complete the task with better; (5) motivation to get a good score. Result of students' motivation percentage on pre research is 39,37% and the student's motivation percentage on cycle I is 71,87%. The average score of pre test is 50 and the average score on cycle I is 70,625. Increases of students' motivation on cycle I is not achieved 75% so that it needed revision learning in an effort to increase the students' motivation on cycle II. The percentage of students' motivation on cycle II is 86,11%. And about the average score of evaluation on cycle II is 84,52. On cycle II the percentage of students' motivation more than 75%, its indicate that cycle II is successful

Based on empirical data analysis and result can be taken a conclusion that the implementation of VAK (visual, auditory, kinesthetic) model through interactive multimedia is effective in increasing students' motivation in natural science subject. The implementation of VAK (visual, auditory, kinesthetic) model through interactive multimedia can improve student's motivation on natural science 4th grade at MI Al-Fattah Malang.

Key word: VAK (visual, auditory, kinesthetic) model, Interactive Multimedia, Motivation.

CHAPTER I

INTRODUCTION

A. Background of the Study

Learning and teaching are a process of activities that can not be separated. Teaching is helping students to acquire information, ideas, skills, values, and way of thinking, express their selves, and how to learn.[1] According to PERMENDIKNAS (Peraturan Menteri Pendidikan National) number 16 years 2007: the teacher must have four competencies. There are: pedagogic competency, personality competency, social competency, and professional competency.

There are many aspects that teacher should do to meet pedagogic competence, as listed below:

1. Know the characteristic of students in physical, moral, social, cultural, emotional, and intellectual aspects.
2. Expert in theory of learning and principles of learning which educates.
3. Develop curriculum related to subjects.
4. Organize educational learning
5. Use information and communication technology for learning process.

[1] Universitas Islam Negeri Malang, *Bahan Ajar Evaluasi Pembelajaran, Kumpulan Berbagai Pedoman Evaluasi Pembelajaran dari Departemen Pendidikan Nasional* (2004)

6. Facilitate the development of the potential learners to actualize the various potentials.
7. Communicate effectively, empathetically, and politely with learners.
8. Organize assessment and evaluation of the process and the results of the study.
9. Use the results of the assessment and evaluation to importance of learning.
10. Perform the act of reflective to improve the quality of learning.[2]

The success of a teacher in conveying the subject matter is not only influenced by the ability to master the material to be conveyed, but also there are other factors that must be mastered in order to convey the material professionally and effectively. To become a professional teacher, a teacher must master the competencies above and apply in learning process.

Talking about competence in the ways of teaching, a teacher is required to be able to arrange and to plan the program, to use and to develop instructional media and to choose a varied and an effective model. In the selection of teaching models there are some factors that should become the basic of considerations, those are : the goals, the students differences, the ability of teachers, the characteristic of materials, the classroom situation, the completeness of facilities, the advantages and disadvantages of teaching models.[3]

[2] Peraturan Menteri Pendidikan Nasional Republik Indonesia, Nomor 12 tahun 2007
[3] Syaiful Bahri Djamarah, *Guru Dan Anak Didik Dalam Interaksi Edukatif*, (Jakarta: PT. Rineka Cipta, 2000), Cet. Ke-1, page 191-193

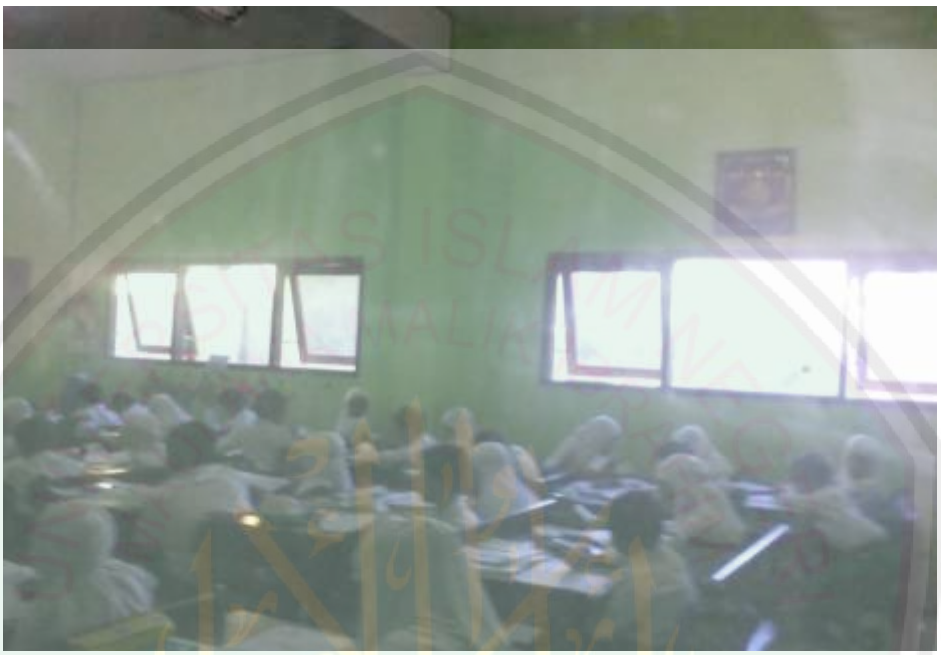
To achieve the quality of learning, the skills of teachers in the learning process is very important and must be improved. The skills include: skills to plan, implement and evaluate.[4] Learning models are an important factor to improve the learning achievement in the natural sciences subject. Further new models are needed in the implementation in learning process. Teaching models and media must suitable. By using the media, the teacher is expected to improve the quality of teaching and learning process and to improve the quality of student's achievement.[5] Teachers should be able to develop instructional media that is used because the media is inseparable part of the learning process, further, it affects in achieving learning objectives.[6]

This research is conducted in Malang, on 4th grade students at MI Al-Fattah Malang. The researcher choose this school because this school near with my boarding house so it easier for me to do the research. At this school has obtained a lot of achievement both in terms of academic and non academic, such as on 2011 a highest score on national examination in Malang city from MI Al-Fattah Malang. Further the researcher chooses MI Al-Fattah to conduct the classroom action research.

From outside of class, I observed a learning process and took some photos of MI Al-Fattah 4th Grade on April 21st 2012. At that time, the

[4] Zainal Aqib, 2007, *Membangun Profesionalisme Guru dan Pengawas Sekolah,* Bandung: C.V Yrama Widya, page 5
[5] DR. Nana Sudjana, 1990, *Media Pengajaran (*Bandung: C.V. Sinar Baru Bandung) page 7
[6] Arief S,dkk, 2003, *Media Pendidikan , Pengertian, Pengembangan dan Pemanfaatan (* P.T Raja Grafindo Persada Jakarta) page 82

teacher used a lecturing model – while discussing the worksheet – during the process of natural science learning



(Picture 1.1: learning process on 4th grade)

Based on the researcher observation that is supported by the picture above:

1. The students had a talk with their friends instead of giving their attention to the teacher.
2. They are passive in accepting the material
3. The students were less in motivation to study
4. The students did day dreams
5. The students are busy to play something with them self.

After learning process, the researcher interviewed Mrs. Indah Sulistyaningtyas. S.Pd as one of the natural science teachers and a vice principal of curriculum at MI Al-Fattah. Malang, she said that:

> " Seperti kita ketahui bahwa kalau menangani kelas besar tidaklah mudah. Untuk menangani kelas besar seperti kelas 4

> diperlukan metode yang bagus dan tepat untuk membuat anak-anak sibuk melakukan tugas agar mereka tidak ramai atau bermain sendiri. jika anak-anak dibuat sibuk maka proses belajar mengajar akan berjalan kondusif. Seperi yang saya lakukan dalam jam pertama pada mata pelajaran ipa, saya menggunakan metode ceramah inteaktif dan sambil membahas LKS, saya membuat anak sibuk untuk mengerjakan LKS nya, maka pembelajaran akan berjalan dengan lancar, soalnya guru kelas 1 orang sangat sulit untuk mengatur kelas besar dengan jumlah murid yang lumayan banyak, maka diperlukan metode atau model dan media yang tepat dan menarik bagi siswa. Pada dasarnya setiap kelas dilengkapi dengan LCD proyektor dan saya juga menggunakan multi metode dan multimedia tapi penggunaanya belum maksimal. penggunaanya tergantung dari materi apa yang akan disampaikan. Namun beberapa siswa terkadang tidak ikut aktif dalam pembelajaran ada yang melamun dan bahkan bermain sendiri, jadi sangat diperlukan metode yang membuat siswa dapat aktif secara keseluruhan khususnya yang dapat memotivasi seluruh siswa untuk aktif dalam pembelajaran."[7]

Based on the result of interview, we have known that to handle a large class is not easy. One teacher in the class is really difficult to manage large classes with a big number of students. Thus we need an interesting and appropriate method or model and media for the students. Basically, every classroom is equipped with LCD projector and I also use multi method and multimedia but its usage are not maximum. Then a method that can make students can be active is necessary needed. Especially method that can make motivates all students to become active in learning process.

Look at the condition, the researchers try to find a solution in order to achieve the aim of learning. In this case, teacher as a source of learning to create a creative and innovate condition in the class and make the students have a high motivation to study in natural science subject.

[7] Result of interview with Mrs. Indah Sulistyaningtyas. S.Pd as natural science teacher on MI Al-Fattah Malang in 4th grade class at 09.00 October, 21st 2012

Talking about the important of motivation and learning achievement from the students, so the researcher choose a classroom research (PTK) to solve the problems and choose an appropriate model and media. Based on Roestiyah opinion, she suggested that "the teacher must have a strategy so that students can learn effectively and efficiently, achieving the goal that is expected."[8]

Every student's has a different ability to accept the material. For student's visual type, they will be easier to learn when to use graphics, pictures, charts, models and etc. For auditory type, they will be easier to learn by hearing the spoken. For kinesthetic type students, they will be easy to learn while doing certain activities, such as disassemble and reassemble, making models, manipulate objects, and so on.

How the teacher to facilitate the students with various potential in learning process with the easy and achieve an optimal learning goals? Of course, first thing the teacher should recognize and understand the characteristic of all students in the class. After that, teachers can determine what media and model are used in learning to match the needs of students.

Certainly the teacher is not will be successful to facilitate all students in the classroom to achieve learning achievement optimally if the teacher uses only one kind of learning model. A variety of models, such as the lecture method is only suitable for the type of auditory students. Similarly, a graph or chart is only suitable for the type of visual. In other hand for kinesthetic students also not

[8] Roestiyah , Strategi Belajar Mengajar, (Jakarta: 1991), page 1

suitable if during the learning process just sit and listen to the explanation of teacher, their easy if learning by doing.

Therefore, teachers need to various model and learning media. Visual, auditory, kinesthetic type of student should get a same facilitation to accept the material. Further the researcher want to use VAK model to facilitated the students. VAK (visual, auditory, kinesthetic) model is teaching models by using potential skill and develop the creativity of students and the researcher want to develop the maximize in using interactive multimedia with make the situation in class is fun and conducive.

Visual is understanding the information and learning from what is seen by eyes through observing, drawing, demonstration, reading, using the media and demonstration equipment. Auditory means that learning must be listened to the listening, speaking, presentations, express opinions, ideas, responding to and arguing. Kinesthetic is body movements (physical activity), and learning experience and it should do. If we use the various potential of students to accept the material in learning process, the students can interested with the learning process and the students become motivated.

Every person has own a style and strength of learning. They confider their motivation and interest to process new information or experiences, they get a learning style is the way to learn something according to the tendency of individuals. There are various theories and models of learning styles. Students and

teachers need to know the different styles of learning, so that they can identify the learning style appropriately for themselves/their student.[9]

There are some research's that support VAK method to improve students motivation, there are: based on a previous research that had been done by Irfan Saiful, with the title "Peningkatan Hasil Belajar Matematika pada Materi Pecahan Melalui Model pendekatan pembelajaran VAK pada Siswa Kelas V SDN 03 Pondok Ngadirejo Wonogiri Tahun Ajaran 2010/2011".

The result of Irfan syaiful research is : score of pretest is ≥ 60 is 43,75% (7 students), on cycle I that get score ≥ 60 is 56,25% (9 students), on cycle II that get score ≥ 60 is 75% (12 students), on cycle III that get score ≥ 60 is 93,75% (15 students). Then the conclusion of this research is Visualization, Auditory and Kinestetic (VAK) model on mathematics subject can improve the results of learning achievement on fractions material at 5th Grade III Pondok, Ngadirojo, Wonogiri. The differences between irfan syaiful research with researcher is: the researcher implement VAK (visual, auditory, kinesthetic) model through interactive multimedia to improve student's motivation on natural science 4th grade at Madrasah Ibtidaiyah Al-Fattah Malang and the material about live cycle of living thing.[10]

[9] Dunn, R., Dunn, K., & Price, G. E. (1984). *Learning style inventory*. Lawrence, KS, USA: Price Systems. page 9

[10] Syaiful, Irfan. 2011. *Peningkatan Hasil Belajar Matematika pada Materi Pecahan Melalui Model Pendekatan Pembelajaran VAK pada Siswa Kelas V SDN 03 Pondok Ngadirejo Wonogiri Tahun Ajaran 2010/2011*. Skripsi. Surakarta: FKIP Universitas Muhammadiyah Surakarta.

Other previous research that had been done by Ari Sugiarti with the tittle Penerapan Model Pembelajaran Vak (Visual Auditori Kinesthetic) Dalam Pembelajaran Matematika Untuk Meningkatkan Motivasi Belajar Siswa (ptk Kelas Viii Smp Muhammadiyah 2 Surakarta Tahun Ajaran 2009/2010.

The result of Ari Sugiarti research is : The indicator can be knew from the increasing motivation indicator includes: (1) enthusiastic students in learning on pre test is 31,71 % and after action is 82,93 % (2) pay attention on teacher explanation teacher on pre test is 51,22 % and after action is 87,80 % (3) active to ask question and answer questions on pre test is 9.76 % and after action is 65,85% (4) doing the teacher task on pre test is 58,54 % and after action is 92,68 %, (5) independence in doing task on pre test is 12,19 % and after action is 70,73 %. Improvements of students achievement can be knew from many students reached to standard minimum criteria before action 36,58 % and after action is 85,36 %. This research concludes that VAK model can improve students' motivation to learn mathematic subject that can impact on increasing students' achievement. The differences between Ari Sugiarti research with the researcher is: the researcher implement VAK (visual, auditory, kinesthetic) model through interactive multimedia to improve student's motivation on natural science 4th grade at Madrasah Ibtidaiyah Al-Fattah Malang and the material about live cycle of living thing.[11]

Based on the explanation above, it shows the learning process should use the appropriate media and models to facilitate students' understanding and to improve

[11] Ari Sugiarti , Penerapan Model Pembelajaran Vak (Visual Auditori Kinesthetic) Dalam Pembelajaran Matematika Untuk Meningkatkan Motivasi Belajar Siswa (ptk Kelas Viii Smp Muhammadiyah 2 Surakarta Tahun Ajaran 2009/2010.

student achievement in natural science subjects, so the researcher want to conduct a research with the title: ***The implementation of VAK (visual, auditory, kinesthetic) model through interactive multimedia to improve students' motivation on natural science 4th grade at MI Al-Fattah Malang.***

B. The Focus of Study

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

1. How is the planning process in implementing VAK (visual, auditory, kinesthetic) model through interactive multimedia to improve student's motivation on natural science 4th grade at MI Al-Fattah Malang?
2. How is the process of implementation VAK (visual, auditory, kinesthetic) model through interactive multimedia to improve student's motivation on natural science 4th grade at MI Al-Fattah Malang?
3. How is the assessment in implementing VAK (visual, auditory, kinesthetic) model through interactive multimedia to improve student's motivation on natural science 4th grade at MI Al-Fattah Malang?

C. The Objectives of Study

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

1. Description of the planning process in implementing VAK (visual, auditory, kinesthetic) model through interactive multimedia to improve students motivation on natural science 4th grade at MI Al-Fattah Malang

2. Description the process of implementation of VAK (visual, auditory, kinesthetic) through interactive multimedia to improve student's motivation on natural science 4th grade at MI Al-Fattah Malang.
3. Description the assessment in implementing assessment VAK (visual, auditory, kinesthetic) model through interactive multimedia to improve students motivation on natural science 4th grade at MI Al-Fattah Malang.

D. The Significances of Study

This research is expected to be able to give advantages for:

1. Teacher or researcher

   With the result of this research then the teacher can identify problems in the classroom, and the teachers try to find approaches, models or other media that can help the duties as a teacher to make the students understand about material to apply in their daily live. The implementation of VAK (visual, auditory, kinesthetic) model by using interactive multimedia can help the teacher explain the materials in learning process.

2. Students

   The result of the research is expected to:

   a. Help improve understanding of the material that has been presented.
   b. Help stimulate students' thinking power.
   c. Help to improve the motivation in learning process.

3. MI Al-Fattah.

   With the result of this research with the title " increasing learning result trough VAK (visual, auditory, kinesthetic) model by using

interactive multimedia on natural science 4th grade" as an input in preparing the learning process, especially in natural science subject and the materials about cycle of living thing in 4th grade.

4. Next Researcher

   The result of the research is expected to be the references to develop research other model and media in primary school.

E. The Limitation of Study

The researcher focuses this research on the natural science 4th Grade and the material about life cycle of living thing in fourth chapter and the purpose is to improve student's motivation at MI Al-Fattah, Malang.

F. The Terms of Study

In order to avoid misunderstanding of the reader, it is very important to define the key terms that used in this research, such as:

1. Visual, auditory, kinesthetic (VAK) model is teaching models by using potential skill and develop creativity of students. And the potential consist of:
   a. Visual is understanding the information and learning from what is seen by eyes through observing, drawing, demonstration, reading, using the media and demonstration equipment.
   b. Auditory means that learning must be listened to, listening, speaking, presentations, express opinions, ideas, responding to and arguing.

c. Kinesthetic is body movements (physical activity), and learning experience and it should do.

2. Interactive multimedia is interactive multimedia is multimedia that is equipped with a controller that can be operated by the user, so users can choose what is preferred for further processing.[12]

G. Systematic of study.

The writing of this the thesis will be divided into chapters, with a view to facilitate the reader in understanding the content and review of this paper. The following systematic are:

Chapter I : An introduction. In which consists of the key points are: background of the research, problem of the research, objectives of the research, the significance of the research, scope of the study, and systematic of discussion.

Chapter II : Literature review. In this chapter the researcher discusses about Implementation of VAK (visual, auditory, kinesthetic) model through interactive multimedia to improve student's motivation on natural science 4th grade at MI Al-Fattah Malang

Chapter III : Discuss about research model, approach and type of research, the attendance of researcher, research sites, data source, technique of data collection, analysis of data, checking validity

Chapter IV : The result of the research. In the discussion contains about the object of research that includes profile of research sites includes

[12] Daryanto, media pembelajaran (Yogyakarta : gava media, 2010) , page 51

the history of MI Al-Fattah, vision and mission of school, the goal of school, data of teacher and students, media and infrastructure, and the discussion about the result of research data in the form of description of fourth grade students, pre test and post test, planning of action, action, reflection, and evaluation.

Chapter V : The analysis and discussion result of the research data.

Chapter VI : The closing which contains the conclusion and suggestion of the research.

CHAPTER II

REVIEW OF RELATED LITERATURE

A. Natural science Learning

1. Natural science definition

The word "science" is a translation from the English words "Scientia" briefly called natural science. Natural means nature related to the nature or concerned with nature, so natural science can be called knowledge about nature or the study of the events that occur in nature.

Natural science (IPA) is concerned with to find out natural resources systematically, so that natural science is not only mastery knowledge in the form of a collection of facts, concepts, or principles alone, but also a process of discovery. Natural science education expected to be a vehicle for students to learn about their self and the environment, as well as prospects for further development in applying in daily life. The learning process emphasis on the provision of direct experience to developed the competencies in order to explore and understand the nature around us.

a) Function of natural science in primary school are:

1) Master concept of natural science and its use in daily life
2) To continue the education to junior high school
3) Develop learning based on experiment.
4) Develop the nature of scientific

5) Develop the awareness about the relationship about environment technology and society

6) Develop the awareness about the regularity nature

2. Natural science significance

Based on PERMENDIKNAS no 22, year 2006, the significance of natural science learning in the elementary school are:

a. Obtain the confidence in the greatness of God Almighty according to the presence, beauty, and regularity of his creation.

b. Develop a knowledge and understanding of concepts learning that useful and can be applied in daily life.

c. Develop a curiosity, a positive attitude and an awareness of the relationship interplay between natural science, environment, technology and society.

d. Develop skills to investigate the natural surroundings, solve problems and make decisions.

e. Increase the awareness to participate in preserving, protecting and preserving the natural environment and any regularity as one of God's creation.

f. Obtain the sufficient knowledge, skills and learning concepts as a basis for continuing education to junior high school or MTS.

B. Learning Model

Model of learning basically is a form of learning that imaged from beginning to end that presented by the teacher with specific. In other words, a model of

learning is a wrap or frame of the application of an approach, method, and techniques of learning.

Bruce Joyce and Marsha cited at Dedi Supriawan's book suggested that "there are four groups of learning model, namely: (1) social interaction model; (2) information processing model; (3) personal-humanistic model; and (4) models of behavior modification."[13]

1. **Visualization, Auditory, Kinesthetic (VAK) model**

VAK model is a learning model by using the potential of students that their have with the training and developing be better and maximum. This model combine three models of student learning, those are: visual, auditory and kinesthetic in order to achieve learning goals. Using visual, auditory and kinesthetic (VAK) model can make learning more educative.

The original VAK concepts were first developed by psychologists and teaching of children specialists such as Fernald, Keller, Orton, Gillingham, Stillman and Montessori, starting in the 1920's. Nowadays VAK model is a favorite of the accelerated learning community, because its principles and benefits extend to all types of learning and development. These models provide additional perspectives of the way we each think and relate to the world.[14]

Visual, auditory, kinesthetic (VAK) is the model which emphasize that learning should utilize human senses of the students.

[13] Dedi Supriawan dan A. Benyamin Surasega, *Strategi Belajar Mengajar* ,Diktat Kuliah. (Bandung: FPTK-IKIP Bandung,1990).
[14] http://www.businessballs.com/vaklearningstylestest.html. Accessed on 25september 2012 at 20.57 pm

a. Visual is understanding the information and learning from what is seen by eyes through observing, drawing, demonstrating, reading, by using the media and demonstration equipment.

b. Auditory means that learning should be through listening, speaking, presentations, expressing opinions and ideas, responding and arguing.

c. Kinesthetic deals with body movements (physical activity), and learning experience and it should do.

2. Characteristics of VAK model

a. Characteristics of visual are :

1) Regularly, pay attention to everything, keep up appearances.
2) Remember with picture.
3) Requires a comprehensive and an objective picture, capturing the details and remember what is seen.
4) Not easily disturbed by the noise.
5) Prefer to read.
6) The reader reads quickly and diligently.
7) Know what to say, but not good at choosing words.
8) More like a demonstration of the speech.
9) More like music than art

Strategies to make student's easy to understanding the material trough visual learning:

a) Use visual materials such as drawings, diagrams and maps.
b) Use color for important things.

c) Encourage children to read books which use illustrated.

d) Use multimedia (for example: computers and video).

e) Encourage the children trying to illustrate his ideas into the picture

b. Characteristics of auditory are :

1) Student's attention is easily split.

2) Speak with a rhythmic pattern.

3) Learn by listening and moving lips / voice when speaking

4) Internal and external dialogue

Strategy to make student's easy to understanding the material trough auditory learning:

a) Encourage the child to participate in discussions both in the classroom and in the family.

b) Encourage the child to read aloud the subject matter.

c) Use music to teach children.

d) Discuss ideas with the child verbally.

e) Allow the children to record their learning materials into the tape and encouraged him to listen to before bed.

c. Characteristic of kinesthetic is :

1) Learning by doing.

2) Many moves.

3) Memorize by walking and seeing.

4) Use a finger as a guide when reading.

5) Fill difficult in write but great for storytelling.

6) Love the game that can make busy

Strategy to make easy student's easy to understanding the material trough kinesthetic learning:

a) Do not force children to study for hours.
b) Encourage the child to learn while exploring their environment (for example: invite them to read while cycling, use real objects to learn new concepts).
c) Use bright colors for important things in the passage.
d) Allow children to learn while listening to music.[15]

With the diversity of potential multiple intelligences and learning styles then VAK (visual, auditory and kinesthetic) model will help the students, especially students in learning natural science. The activity of the lesson is the combination of three habits in the student's learning. Students will be guided in a sequence of things that are concrete, semi-concrete, semi-abstract and abstract. This is in accordance with Al-Quran verses that we must use hearing, vision and heart to pray and worship to Allah. In VAK (visual, auditory, kinesthetic) model also use hearing, vision in learning process. As the command of Allah in surah Al-Mu'minun verse 78:

وَهُوَ ٱلَّذِىٓ أَنشَأَ لَكُمُ ٱلسَّمْعَ وَٱلْأَبْصَـٰرَ وَٱلْأَفْـِٔدَةَ ۚ قَلِيلًا مَّا تَشْكُرُونَ ﴿٧٨﴾

Artinya : Dan Dialah yang telah menciptakan bagi kamu sekalian, pendengaran, penglihatan dan hati. Amat sedikitlah kamu bersyukur. Yang dimaksud dengan bersyukur di ayat ini ialah menggunakan alat-alat tersebut

[15] Colin, Rose dan Niccol, Malcolm, J. 2002. *Accelerated Learning* (Bandung : Nuansa) page 130

untuk memperhatikan bukti-bukti kebesaran dan keesaan Tuhan, yang dapat membawa mereka beriman kepada Allah s.w.t. serta taat dan patuh kepada-Nya. kaum musyrikin memang tidak berbuat demikian.

According with that verse we are blessed with a vision hearing and heart to do some good and to pray and worship to Allah. In VAK (visual, auditory, kinesthetic) model also use hearing, vision in learning process. If we get a good achievement in learning process, then the students must use all components of human senses. And we must use ears, eyes, hand, nose and mouth in a good way suitable with command from Allah.

C. Learning Motivation

1. Definition of learning motivation.

Motivation deriving from the "motive" word, defined as an effort that drives someone to do something. Motives can be criticized as power of locomotion in and in certain activities are subject to do to reach a goal. Then motivation can be defined as power of locomotion that has become active. Motives become active at particular times, especially when the need to reach a goal is felt or urgent.[16] According to McDonald cited at Mulyati Arifin's book suggested that "motivation is an energy change in the person of someone who is characterized by the growth of affective and reaction to measure in objective." As a matter of motivation in the classroom is the process of raising, maintaining, and controlling interests. In this case the task of the teacher is helping students to choose a topic, activity, or a useful purpose, either short or long term.[17]

[16] Sardiman, *interaksi dan motivasi belajar mengajar* (Jakarta: cv. rajawali, 1986), page 73
[17] Mulyati Arifin,dkk, *Strategi Belajar Mengajar kimia* (Malang: UM Press, 2005), page 125

Learning is a process, an activity and not an achievement or goal. Learning not only remembering, but also more broadly that is the experience. Learning outcomes is not a mastery of the exercises, but a change of behavior. Another opinion says learning is a process of changing individual behavior through interaction with the environment. Compared with the first sense, it is clear that the purpose of learning the same principle, namely changes in behavior, just a different way or the achievement.[18]

In the holy Qur'an many verses that related with motivation, such as surah Ar-Ra'd verse 11;

إِنَّ ٱللَّهَ لَا يُغَيِّرُ مَا بِقَوْمٍ حَتَّىٰ يُغَيِّرُوا۟ مَا بِأَنفُسِهِمْ ۗ وَإِذَآ أَرَادَ ٱللَّهُ بِقَوْمٍ سُوٓءًا فَلَا مَرَدَّ لَهُۥ ۚ وَمَا لَهُم مِّن دُونِهِۦ مِن وَالٍ ﴿١١﴾

Artinya : Sesungguhnya Allah tidak merobah Keadaan sesuatu kaum sehingga mereka merobah keadaan[768] yang ada pada diri mereka sendiri. dan apabila Allah menghendaki keburukan terhadap sesuatu kaum, Maka tak ada yang dapat menolaknya; dan sekali-kali tak ada pelindung bagi mereka selain Dia.[19]

That verse is related to efforts of person to achieve a goal that certainly can't achieve without efforts, but should flourish the motivation in their self. In context of education, the teacher must flourish the student's motivation in learning process, because every student has a various characteristic and different background.

Motivation and learning are the two things affect each other. Learning is a change in behavior is relatively permanent and potentially occurs as a result of

[18] Oemar Hamalik, *Kurikulum dan Pembelajaran* (Jakarta: Bumi Aksara, 2007), page 36-37.
[19] Depaq RI. *Al-Qur'an dan Terjemahannya* (Bandung: Jamarotul Ali. 2005), page 125.

practice or reinforcement which is based on the purpose to achieve specific goals.[20]

The essential of the motivation is internal and external encouragement to students who are learning to make behavioral changes to some indicators or elements that support. This has a major role in the success of a person in the study. Indicators of motivation to learn can be classified as follows:

a. There is high motivation to success.
b. There is an encouragement and learning need.
c. There is an expectation and dreams of the future.
d. There is an award in the study.
e. There are interesting activities in the learning activities.
f. There is a conducive learning environment, so that the students can be learning well.[21]

To encourage the learning motivation of students, then the necessary principles of learning motivation as follows: (1) appreciation is more effective than punishment, (2) all students have psychological needs (which are basic) must get a certain satisfaction, (3) intrinsic motivation more effective than extrinsic motivation (4) a matching answer requires the strengthening of efforts, (5) the motivation it is easily spread to others, (6) appreciation that comes from outside is sometimes necessary and effective to stimulate the real interest (7) the variation of teaching techniques and processes of learning to keep the interest of students.[22]

[20] Hamzah B. Uno, *Teori Motivasi dan Pengukurannya Analisis di Bidang Pendidikan* (Jakarta: Bumu Aksara, 2007), page 23
[21] Ibid.,
[22] Oemar Hamalik, *Proses Belajar Mengajar* (Jakarta: Bumi Aksara, 2007), page 163-165.

2. Technique of motivation

Flourishing the motivation the students surely must be pursued from the teacher, by the use of a variety of techniques or way that can flourishing the motivation, so that can be appears in the self of students. A technique of motivation is as follows:

a. Appreciate statement in a verbal manner
b. Use the value of evaluation as peacemaker of success
c. Inflict curiosity
d. Elect something that is unexpected by students
e. Make an easy learning in early age
f. Use the familiar material for the example in learning process.
g. Use the unique connection and unexpectedly to apply a concept and the principle that has been understood
h. Demand the students to use things that have been learned earlier
i. Use the simulation and game
j. Give the opportunity to students to show their ability in public
k. Reduce unpleasant consequences and student involvement in learning activities
l. Understand the social climate in the school teacher
m. Utilize authority appropriately
n. Integrate the strong motives
o. Clarify learning objectives that will be achieved
p. Formulate the goals

q. Tell the results that have been achieved

r. Make the atmosphere a healthy competition among the students

s. Give a positive example[23]

3. Significance of learning motivation.

The general significance of motivation is to inspire someone to have high expectation and to do something in order to achieve the specific purpose. The significance of motivation is to motivate the students and improve the learning achievement in order to aim of education suitable with the school's curriculum.[24]

4. Kinds of learning motivation.

Based on the definition above, learning motivation can be divided into two kinds, namely:

a. Intrinsic motivation is motivation that arises as a result of his own individual self without any coercion and encouragement from others, but of their own self.

b. Extrinsic motivation is motivation that arises as a result of influences from outside the individual, because of the solicitation or coercion from anyone else who can do something.[25]

5. Several ways of fostering children's learning motivation

To fostering the learning motivation of students, teachers should be pursued with a various way. Several ways to flourishing extrinsic motivation, namely:

a. Competition (the rivalry).

[23] Hamzah B. Uno, *Teori Motivasi Dan Pengukurannya Analisis Di Bidang Pendidikan* (Jakarta: PT bumi aksara, 2007), page 34-37

[24] M. Ngalim Purwanto, *Psikologi Pendidikan* (Bandung: Remaja Rosdakarya, 2006), page 73.

[25] Moh. Uzer Usman, *Menjadi Guru Profesional* (Bandung: Remaja Rosdakarya, 1995), page 29.

The teacher tried to create competition among students to develop their learning achievements, trying to fix the results of the achievements that have been achieved before.

b. Pace making (creating destination temporary).

c. At the beginning of the learning process, the teacher should convey the indicator that will be achieved, so the students trying to achieve the indicators.

d. Clear purpose.

Motives can encourage the individuals to achieve a goal. With a clear purpose, it can make great value and the great motivation in doing act.

e. Great interest.

The Motif will arise if the individual has a major interest.

f. Conducting an assessment or test.

In general all the students want to study with the goal of getting a good value. This is proven by the fact that many students do not learn when there is no evaluation. So, the number or value of it is a strong motivation for students.[26]

D. Learning media

1. Definition of media

The word media comes from the Latin medius, which literally means "middle", "intermediate", or "introduction". In Arabic, the media is the intermediary or introductory messages from the sender to receiver of the message.

[26] Moh. Uzer Usman ,*Menjadi Guru professional* (Bandung: PT.Remaja Rosda Karya, 2002) page29- 30.

Gerlach and Elly suggested that if the media understood in outline is the human, material, or events that establish the conditions which enable the pupils to acquire knowledge, skills or attitudes.

Media is a tool of teaching and learning process to convey the material. Types of media are: (1) visual: graphs, diagrams, charts, charts, posters, cartoons, and comics; (2) Audio media: radio, tape recorders; (3) Audio visual: television, video etc.[27]

2. Multimedia

Multimedia is a combination of text, graphics, sound, animation and video to convey a message to the public.

Interactive multimedia is multimedia that is equipped with a controller that can be operated by the user, so users can choose what is preferred for further processing. [28]

In this research, the researcher use macromedia flash player, wonder share quiz creator and video.

3. Definition of Interactive Multimedia

In etymologically multimedia derived from the word "*multi*", In the Latin language is *"nouns"* which means with much, variously, and also it can from a "*medium*" word (Latin Language) which means something that is used for conveying or carrying something. The word medium in American Heritage Dictionary also refers to the tools to distribute and present the information.

[27] Azhar arsyad, media pengajaran (Jakarta : PT grafindo persada, 1996) page 15
[28] Daryanto, loc.cit.

Some definitions of multimedia according to experts are: (1) combines of at least two media input or output. The shape of this media is audio (sound, music), animation, video, text, charts and pictures; (2) Instrument that can create dynamic presentation and interactive which combine with text, charts, animation, audio; (3) Multimedia in the context of computer. Hofstetter suggested that: "the utilization of the computer to create and combine text, graphics, audio, video, using a tool that allows users to interact, create, and communicate;" (4) Multimedia as a interrelation of text, graphics, sound, animation, and video to convey messages to the public; (5).Multimedia is a combination of text, data, images, audio, video, animation and interaction; and (6) Multimedia (as an adjective) is the electronic media to store and display the multimedia data.

Based on the opinions above, it can be concluded that multimedia is a combination of various media (file format) in the form of text, images (vector or bitmap), graphics, sound, animation, video, interaction, etc. that have been packaged into a digital file (computerized and now termed Flash media), is used to convey messages to the public. Utilization of multimedia in learning as a media for learning such as: learning media, games, movies, medical, military, business, design, architecture, sports, hobby, advertising/promotions, etc.

4. Characteristics of Interactive Multimedia

Interactive Multimedia comes from macromedia flash or flash media that is considered to be closely related to the software to create animation that is usually

used for various purposes on the internet. For example, to create a site, banner, advertisement, an animated logo, as well as other complementary animation.[29]

Related to multimedia, characteristics in generally be known with these traits when the users get leeway in controlling the multimedia, then this is called interactive multimedia.[30] Thorn propose six criteria to evaluate interactive multimedia, namely: (1) the first Criterion is the ease of navigation, (2) the second Criteria is the content of cognition, (3) the third criterion is the presentation of information, (4) the fourth Criterion is the integration of media, (5) fifth Criterion was artistic and aesthetic and (6) last appraisal Criterion is a function in its entirety. So we can conclude that interactive multimedia is merging and synergy all the media consists of: a) text; b) graphs; c) audio; and d) interactivity.

5. Advantages of Interactive Multimedia

Related to the usefulness of learning media, especially interactive visual media, Levie suggested that "four advantages of visual learning media, namely: (a) gained functions, (b) affective functions, (c) cognitive function and (d) compensators function". The explanation is as follows:[31]

a. Gained function in visual media is exciting and direct attention to students to concentration to the contents of subjects with visuals or accompanying text subject matter. Thus, possible to obtain and remember the lessons bigger.

[29] http://www.total.or.id/info.php?kk=Macromedia%20Flash. Accessed on 5 February 2013 at 09.10
[30] http://www.multimedia.com/. Accessed on 5 February 2013 at 09 25
[31] http://id.*wikipedia.org/wiki*/Adobe_Flash. Accessed on 5 February 2013at 09.30

b. Affective function in media visual can be seen from the enjoyment students when learning or reading text pictorial. Picture or heraldry visual can inspire emotion and attitude students.

c. Cognitive function in media visual can make the students easy to understand and remember the information or message contained in a picture.

d. Compensators function makes it easy for students who are weak results in organizes his reading text and remember it again. That is very helpful a weak students receive a message with text or verbal. In other hand there are some advantages in using of flash media is:

1) Helps teachers to convey information and valuable experience to the students from the new innovations in the software.[32]
2) Could flourish the learning motivation of students because it is a new experience.[33]
3) As a solution to give a chance to the teacher to show a new experience as the learning process progresses.
4) To add the attention of students in learning.
5) Make a students interest in learning and save time learning because teachers are not too much explain the words.[34]

[32] http://www.macromedia.com/resources/education/k12. Accessed on 23 February 2013 at 10.03
[33] http://www.macromedia Barb.Bodley@chca-org, Elementary School. Accessed on 23 February 2013 at 10.30
[34] Janet Bremer, High School Technology Teacher, Cincinnati Hills Christian Academy, Cincinnati, OH, Janet.Bremer@chca-oh.org. Accessed on 23 February 2013 at 11.05

6. Disadvantages of Interactive Multimedia

Disadvantages of Interactive Multimedia are:

a. Not all teachers can make interactive multimedia because technique of making is not easy.

b. Cost needed quite much because must be supported with facility for certain.

c. Need a more time to make interactive multimedia.

d. Requiring special skill in application computer and need diligence

e. Procuring and maintenance need money

CHAPTER III

RESEARCH METHOD

A. The Approach and Type of Research

Design of this research is classroom action research. Suyanto cited at Wahidmurni's book suggested that classroom action research or PTK as practical research to correct the learning process in the class.[35] In this action research, researchers perform an action or intervention, which is specially observe continuous, find the positive and negative impacts.

The researcher uses qualitative research approach in order to reach the purpose. Qualitative research is a research used to examine the condition of natural object. The researcher is the key instrument, technical to collect the data use triangulation, the characteristic of data analysis is inductive, and the result of the research press on the meaning not on the generalization.[36] The character of this research is descriptive. The researcher want to observe, analyze the indication in a system to understand the problems researched, then complete and detail. It is a research which is committed in the classroom.

B. The Site of Researcher

This research is conducted in Malang, on 4th grade students at MI Al-Fattah Malang. The researcher choose this school because this school near with my

[35] Wahidmurni, "*Bahan Ajar Penelitian Pembelajaran*", (Fakultas Tarbiyah UIN Malang, 2005) page 6

[36] Sugiyono, Metode Penelitian Kuantitati, Kualitatif dan R&D, Alfabeta, page 9

boarding house so it easier for me to do the research. This research is customized with Natural science subject in 4th grade that become object of this research.

C. The Attendance of Researcher

That is characteristic of a qualitative research that the researcher acts as an instrument and collector of the data.[37] Because of that, presence of the researcher is obligatory. The researcher as an main instrument enter to the research setting in order to get information with the informant and understands the facts in setting of the research naturally.

The researcher has to able to adapt and make good relation with the informants. The good relation will make easy for the researcher as long as collect the data. The researcher must be careful, so the researcher does not create a bad impression for the informants. Presence of the researcher is also known by the informants.

To understand the location, the researcher starts it with send a permission letter to the headmaster of MI Al-Fattah, Malang. In May, 16th, 2012 the researcher ask the permission to the vice headmaster of curriculum field. In May, 19th, 2012 the researcher gets the permission and directly starts the pre research.

There are some actions done by the researcher during in setting of the pre research, they are:

1. Consulting with the headmaster of MI Al-Fattah, Malang. That is to convey the intention and purpose of the pre research.

[37] Wahidmurni, Cara Mudah Menulis Proposal Peneliitian Lapangan (UM Press, 2008) page 1

2. Getting the permission recommendation from the headmaster to do pre research in the school
3. Interviewing to the informant. They are natural science (IPA) teacher and. They are as a data source; the researcher will get data as much as possible and focuses on the problem of the pre research.
4. Observing the natural science learning process.

D. The Sources of Data

Collected data in this research are data appropriate with research question about the implementation of VAK (visual, auditory, kinesthetic) model through interactive multimedia. Data in this research such as words, act of the informants, documents, photos and record of the interview. Data and the sources of data this research can be looked in the table below:

NO.	Data	Data Sources
1.	The design of learning process	Document: 1. Syllabus 2. The design of learning application (RPP) 3. The curriculum structure 4. Interactive multimedia
2	The implementation of learning	1. The interaction between teacher and students

	Process	2. The interaction between the student and learn sources both of them are primer data is obtained from pass through the observation. 3. Implement VAK (visual, auditory, kinesthetic) model through interactive multimedia to improve student motivation on natural science 4th grade at MI Al-Fattah Malang 4. The informant Interview the teacher and the student

(Table 3.1 sources of data)

The researcher looking for data from the informants, they are informant who know and understand about the implementation of to implement VAK (visual, auditory, kinesthetic) model through interactive multimedia to improve student motivation on natural science 4th grade. In this research, the researcher use *snowball sampling* to determine the informants. After the researcher knew the key informant, then the key informant determines the other informants who know about that research question. The key informant in this research is vice headmaster of MI Al-Fattah, Malang. The other informants are teacher and students. Look at this following table:

No.	Informant	Position
1.	Abdul Halim. M.Ag	Headmaster
2.	Indah Sulistyaningtyas	Natural science teacher
3.	Students of 4th grade	Students

(Table 3.2 informant)

E. The Strategy of Data Collection

A data collection strategy is one of important thing for a research so that the obtained data actually match with a predetermined title. Prof.Dr.Sugiono suggested that is the techniques of collection data can be conducted by observation, interview, a questionnaire, documentation and combination of them.[38]

The results that have been achieved are really accurate data and accountable, then a data collection procedure that researchers use in this study is as follows:

1. Observation

Observation is a systematic recording of phenomena that is investigated. Researcher conducted an early observation in MI Al-Fattah 4th grade to find out the problems that appear in the class. The next observation is done by noting developments occurring after the action.

Observation methods conducted in an effort to collect data. The observation can be interpreted as recording systematic investigated phenomena. Three essential phases in classroom observation is planning a

[38] Sugiono, *Memahami Penelitian Kualitatif* (Bandung: CV. Alfabeta, 2005), page 62-63.

meeting, classroom observation, and trackbacks discussion.[39] In this study, researchers used three phases in the observed classes, namely:

a. Phase of the planning meeting

In planning of meeting, researcher present and discuss lesson plans with the fourth grade natural science teacher about how the presentation of the learning step is performed earlier and to be performed as an effort to improve the learning that has been done before.

b. Classroom observation

Classroom observation carried out to see how far use the instructional media for improving students motivation 4th grade. This is done in an objective model of teaching and learning activities by researchers.

c. Feedback discussion

Based on class observation of researcher conducted a feedback discussion with the participants. This discussion is based on observations or classroom observation. Where researchers and participator search disadvantages and advantages to be used as a notes and discuss the next steps.

[39] Rochiati Wiriaatmadja, *Metode Penelitian Tindakan Kelas* (Bandung: Remaja Rosdakarya, 2007) page 64.

2. Interview

The interview is a conversation with a purpose. The conversations conducted by the two parties, namely the interviewer that ask the questions and the informant that provide answers to that question.[40]

Interview in terms of its implementation are distinguished as follows:

a. Depth interview, where the interviewer is free to ask any related to the research conducted.
b. Guided interviews, the interviews conducted in which interviewer brings a series of questions are complete and detailed.
c. Depth guided interviews, the combination of free interviews and guided interview.

This study uses a depth guided interview, in which researchers took a series of questions to the informant and asked matters relating to research, informants in this study is the guardian class, teacher subject areas, students in 4th and the people who associated with research that can provide information.

3. Documentation and document collection

Documentation method is to find data about the things or variables in the form of notes, transcripts, books, newspapers, magazines, meeting, agenda, and etc.[41] Document is record of the phenomena in the field both in past time and during the process of research. Document can be in the

[40] Lexy Moleong, *Metodologi Penelitian Kualitatif* (Bandung: PT. Remaja Rosdakarya, 2002), page 135

[41] Suharsimi Arikunto, *Prosedur Peneltian Suatu Pendekatan Praktik (*Jakarta: Rineka Cipta*)*, page 231.

form of writing, picture, or monumental creation. Document method is the complement of observation and interview in qualitative research. In case of document Bogdan cited Suharsini Arikunto's book suggested that "In most tradition of qualitative research, the phrase personal document is used broadly to refer to any first person narrative produced by an individual who describes his or her own actions, experience, and belief".[42] The result of research will be more credible if supported by the existing photos, academic writing, document, and so forth.

The researcher will take the documentation as much as possible. It can be in form of photos, syllabus and teaching planning, record of student's achievement, and profile of school.

F. Data Analysis

In qualitative research, data analysis is more focused during the process of research in the class and together with collecting data. Based on Nasution cited suharsini Arikunto's book suggested that "in fact, data analysis in qualitative research is an on going activity that occurs throughout the investigative process even after the process.[43]

The purpose of the analysis of this data are: (1) data can be given a meaning that are useful in solving problems in research, (2) shows the interrelation between the phenomena found in research, (3) provide an answer

[42] Ibid., P. 240.
[43] Ibid., P. 245

to the hypothesis that be proposed in the research, and (4) a basis for the conclusions and implications and goals are useful for further research.[44]

Qualitative data Analysis is an effort that made by working with data, organizing data, separated data became a unit that can be managed, search and find patterns, find what is important and what is learned, and decide what can be told to others.[45]

Form the result of qualitative data that is interview, observations, and documentation analyzed by descriptive analysis to ensure that by applying VAK (visual, auditory, kinesthetic) model through interactive multimedia can improve student's motivation. Steps that be used in classroom action research is doing repairmen coding to classify a string of words a sentence from notes then can make every body easy to read and this process can accelerate analysis and empowering data.

Data collected in numbers or qualitative data by using visual analysis descriptive. The data to illustrate that an act done can present improvements, increase, or changes towards a better, compared to previous state. To know the students motivation in learning process with assessment sheets for learning motivation analyzed using formulas. [46]

$$P = \frac{\text{Post test} - \text{Pre test}}{\text{Pre test}} \times 100\%$$

Description:

[44] M. Iqbal Hasan, *Pokok Materi Metodologi penelitian & Aplikasinya* (Jakarta: Ghalia Indonesia, 2002) page 98

[45] Lexy J. Moleong, *op.cit* page 248.

[46] Hamzah. B. Uno, *Model Pembelajaran, Menciptakan Proses Belajar Mengaar Yang Kreatif dan Efektif* (Jakarta: Bumi Aksara, 2007), page 73

P = Percentage improvement

Post test = average value after the act

Pre test = average value before the act

Formulas for completeness of student's achievement:

$$KT = \frac{SC}{SM} \times 100\%$$

Description:

KT =completeness of students achievement

SC = total of students score

SM = minimum score

1. **Analysis of pre-research**

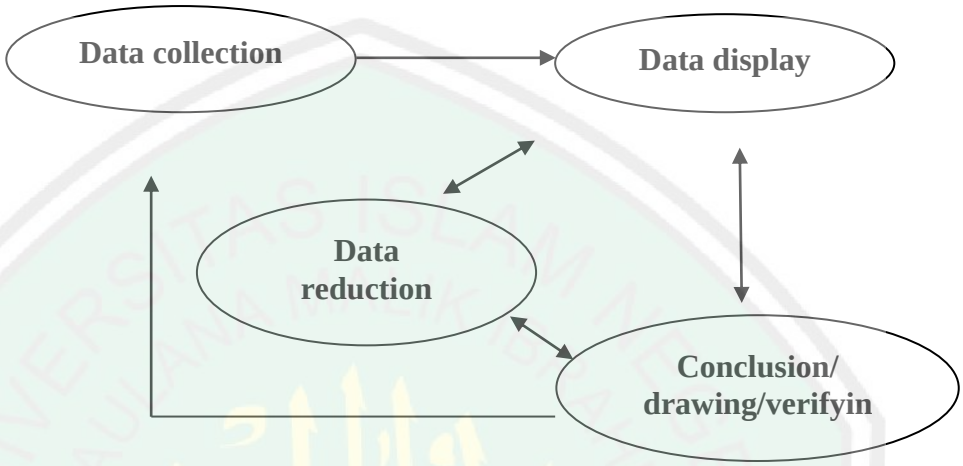
Qualitative research has analyzed data before the researcher going to the field. Analysis is applied toward the resulted data of preliminary research or secondary data that will be used to determine the focus of research. But this focus of research is still temporary; it will develop after the researcher goes on and during process of research in the field.[47] In this case the researcher analyzes the data from journal, literature, and the previous research.

2. **Analysis of data during the research**

Miles and Huberman cited sugiono's book suggested that (1984) "the activities in qualitative data analysis were done interactively continually".[48] The activities in this data analysis are data reduction, data

[47] Ibid., P. 245
[48] Sugiyono, *op.cit.*, page 246.

display and conclusion, drawing or verification. The steps of analysis are showed in this draft below.



(Picture 3.1: Components of data analysis)

a. Data Reduction

Data reduction means summarizing, selecting the important point, focusing on important thing, looking for its theme and pattern. Data reduction can be helped by utilizing electronic device such as mini computer, by giving code in particular aspect. In reducing data, every researcher will be guided by the purpose that will be achieved. The main purpose of qualitative research is research finding. Therefore, if there is something strange, uncommon, unknown, hasn't pattern, it should be treated as the object of research in reducing data.

b. Data Display

In qualitative research, data display can be in the form of brief description, chart, and relations among the category,

flowchart, and so forth. In this case Miles and Huberman (1984) stated that "the most frequent form of display data for qualitative research data in the past has been narrative text"[49]

Through data display, the result data is organized well, arranged in interrelated pattern, so that can be understood easier. Miles and Huberman suggested that "looking at displays help us to understand what is happening and to do some thing-further analysis or caution on that understanding"

c. Conclusion Drawing/ verification

Conclusion in qualitative research is a new founding or invention. The invention can be in the form of description or the view of an object that still unclear and need to be cleared as well. It can be proved after the founding of evidences during the research. Conclusion can be in the form of causal relation or interactive, hypothesis, or theory.

d. Checking The validity of Data

The validity of data is important for the researcher to study. the research finding position toward the before theories and findings, interpretation and explanation from the findings or theories expressed from the field[50]. The researcher uses some technical to keeps the validity of the research result. They are triangulation and focus group discussion

[49] Ibid., page 249
[50] Wahidmurni, *op.cit*., page 46.

1) **Triangulation**

Triangulation in this checking data validity is meant as a data checking from some sources, was and time. In this research, the process of triangulation application uses source triangulation. Source triangulation conducted by checking the data from some source for test the data validity. Example in this research, the different data from the students, the teachers, and vice principal of curriculum field are described, categorized and specified. The researcher also identifies the different opinion from the students and the teacher. Then the researcher makes a conclusion and asks an agreement for the sources.

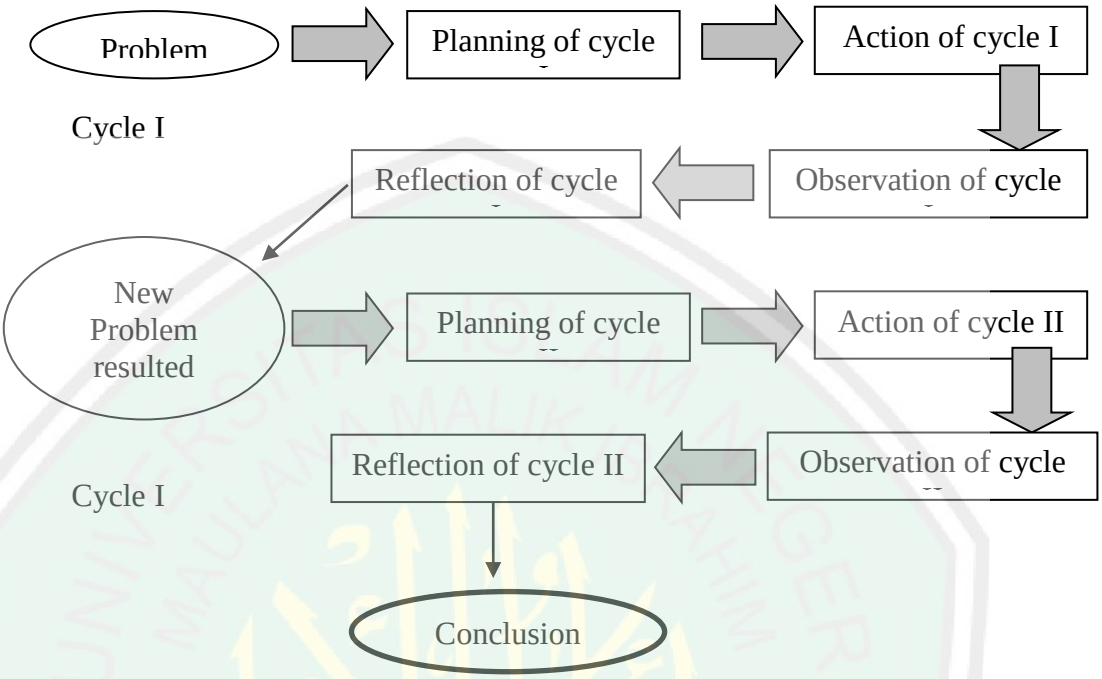
2) **Focus group discussion**

In this research, the researcher considers the adviser and the lecturer as expert. The researcher will discuss with natural science teacher in MI Al-Fattah, Malang.

G. The steps of research

In this research the researcher uses two cycles. Cycles I and II for each cycle consist of two meeting. There were four main activities in every cycle, they are: (a) planning (b) action (c) observation (d) reflection.

Those activities can be drawn as below:



(Picture 3.2 Steps of research)

1. **Cycle I**

   a. Problem identification

   The researcher identifies the problem natural science teaching conformed by the teacher by doing interview and collecting documentation with the natural science teacher in fourth grade.

   b. Checking the field

   The researcher observes the existing problem during the process of teaching and learning process.

   c. Planning of cycle I

   In planning the action, the researcher also design the teaching and learning in form of lesson plan, making action planning, and evaluation.

d. Action of cycle I

Action is implemented in fourth grade in accordance with the planning in lesson plan which arranged before. During the implementation, the researcher ruled as a teacher and observer who notice the improvement during teaching and learning process.

e. Observation of cycle I

Observation is done within the implementation of action is taking place. In this case, it is the process of teaching and learning. The observer uses observation guidance during the process and notices all of phenomena to collect data.

f. Reflection of cycle I

Reflection is done to see the temporary result of Implementation VAK (visual, auditory, kinesthetic) model through interactive multimedia to improve student's motivation on natural science 4th grade at MI Al-Fattah Malang. Reflection is done to see the temporary result of action; the cycle is done or stopped the cycle if the problem of student solved at least 75% of student.

g. Revision

The result of cycle I is used as the foundation to make revision of the next planning. Revision can be done based on the observation and reflection in cycle I to avoid the repetition of mistake and the weakness of cycle I. If we found new problem in cycle I or the target not reached we should do the cycle 2

2. Cycle II

a. Planning of cycle II

After knowing the improvement and making the revision of planning, the researcher makes the new continuous lesson plan in accordance with the reflection and revision of planning in the cycle me.

b. Action of cycle II

The implementation of action is done in accordance with the new planning which formulated before so that get optimal result in accordance with the goal.

c. Observation of cycle II

In this process, the researcher observes and notice again toward the condition of class to know the improvement of cycle I and cycle II. It should be observed well because this is the last observation and data collection of the research.

d. Reflection of cycle II

The researcher notices the result of observation and discuss with the teacher to know the result of action that implemented toward the students in the class. The researcher reflects and concludes the result of cycle I and II so that can be known that the motivation and conceptual ability are encouraged.

The research is done if passing the criteria below:

1. Motivation of students in learning process increases at least 75 %
2. Criteria of students have high motivation :

a. Students interested in subjects that are taught.

b. Active in answer the question from the teacher suitable with the material.

c. Never give up in solving the problems in learning process.

d. Give the feedback or give the question to the teacher.

e. Students always remember and learn that lesson again.

f. Student show enthusiasm.

CHAPTER IV

RESEARCH FINDINGS

A. Data Description

The data description in this chapter contain of explanations from the interview, observation and documentation. Explained data will describe in the setting of this research at MI Al-Fattah Malang. Data description in this research is classified based on the research questions in chapter I. They are implementation of VAK (visual, auditory, kinesthetic) model to improve students' motivation on natural science 4th grade that is implemented in MI Al-Fattah Malang. The researches start on May, 15th 2012 until the October, 29th 2012. The first meeting conducted on October, 22nd 2012 and the second meeting conducted on October, 25th 2012

1. General Description of MI Al-Fattah Malang

   MI Al-Fattah is an Islamic elementary school in Malang city. Location of school at Telaga wangi street, number: 39, east java, Indonesia. MI Al-Fattah has 16 teachers and amount of the students' are 223 students' from 1st grade until 6th grade

2. Vision and mission MI Al-Fattah Malang

   a. Vision

      Make an excellent generation and Islamic: insightful faith and taqwa (imtaq), science and technology (iptek)

b. Mission

1) Produces the graduates who have a solid aqidah, faithful and pious to Allah, has a good achievement and has akhlakul karimah.
2) The creative learning innovative and insightful technology.
3) Make our environment and human resources as a source of Islamic learning.
4) Develop the potential of students based on their level of intelligence, interests and talents so as to have the Islamic life skills (live action)
5) Accustom to clean living, healthy, and attractive look, so it can create prime conditions.
6) Created a conducive work climate, culture and a high work ethic, as well as an adaptive human resources and competitive.
7) Build an image of Madrasah as a trusted community partner in the field of education and Dakwah.

c. Goals

Make the foundations of intelligence (intellectual, emotional and spiritual), personality and noble character, knowledge and skills for independent living and following a further education.

3. Profile of MI Al-Fattah Malang

a. School name : MI AL-FATTAH

b. Address

a). Street /Village : JL. CANDI TELAGAWANGI NO.39 MOJOLANGU

b). District : LOWOKWARU

c). City : MALANG

c. Head master : ABD. HALIM, M.Ag

d. SK of building : Depag No. WM 06.02 /7.296 /A /Ket./1991 Tanggal, April 13nd 1991

e. Accreditation level : A (very good)

f. Land status : owner of Yayasan

g. The land ownership certificate : Milik Sendiri, BPN Sertifikat No. 4731 Th 2004.

h. Large of land : 990 m^2

i. Students data : 223 student's

Grade	Woman	Man	Total
1	**24**	**23**	**47**
2	**25**	**28**	**53**
3	**16**	**16**	**32**
4	10	10	**20**
5	23	15	**38**
6	16	17	**33**
Total	**114**	**109**	**223**

(Tabel 4.1 amount of students at MI Al-Fattah)

j. Infrastructure

No	A building /room	Total	Large (m2)
1	Classroom	8	19,5
2	Laboratory	1	19,5
3	Library	1	4
4	Computer	1	4
5	Skill	-	-
6	Art	1	12
7	Mosque	1	45
8	Teachers toilet	1	2
9	Student's toilet	3	1,5
10	Teachers room	1	32,5
11	Headmaster room	1	12,5
12	Receptionist	1	12,5
13	Healthy room	1	3
14	BP/BK room	1	3

(Tabel 4.2 Infrastucture at MI Al-Fattah)

B. Explanation of Data

1. Description of 4th grade students

Class room action research was conducted in 4th grade at MI Al-Fattah Malang, on natural science subject and the schedule that is Monday, Thursday and Friday. As for the number of students' in the 4th grade are 18 students'.

2. Pre Research

On Mei 21st, 2012 the researchers conduct the early observations in MI Al-Fattah, the purpose of pre research is to know the natural science learning process and also determine the level motivation of the students on the natural science subjects. The result of the observation teacher is still use a lecturing method while discuss the worksheet. In this case only teachers are active, that it can make the motivation of students in natural science subject is still less.

a. The motivation instrument on pre research

No	Name	The liveliness in following lessons				Cooperation in the group				Motivation in exploring natural science subject				An effort to complete the task with better				Motivation to get a good score				Score total
		1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	
1	Achmad Syaifulah Yusuf		√			√					√				√				√			9
2	Aderisty Arista Nur Aisyah		√				√			√				√				√				8
3	Adeyanty Arista Nur Aisyah		√				√			√					√				√			9
4	Arman Maulana	√				√				√				√				√				5

5	Dimas Galang Pramono		√			√				√				√				√				6
6	Dina Yulianti			√			√				√				√				√			11
7	Ella Rosida Octaviana Putri		√				√				√				√				√			10
8	Fadhil Mawla Reza Rahardi																					Sick
9	Luhur Ahmad Difa' Pratama	√					√			√				√					√			**7**
10	Maulidatuzzilva		√				√				√				√				√			9
11	Mohamat Rizki Septiawan	√					√				√				√				√			7
12	M. Ikbal Romadhani	√					√				√				√				√			7
13	Muhammad Bintang Syura Jaya Nurcahya		√				√			√				√				√				7

14	Muhammad Iqbal Albani																			Sick
15	Nikita Amelia Hafsah	√				√			√				√				√			7
16	Putri Fajri Hidayah		√		√				√				√				√			8
17	Siela Julita Cindi Mashitha	√			√				√				√				√			8
18	Wulan Zahrah Kuswana		√			√			√				√				√			8
	Total	27			25			23			22			24						126
	Average score	1,68			1,56			1,43			1,37			1,84						7,87
	Percentage	39,37%																		

(Tabel 4.3 motivation instrument on pre research on 4th grade at MI Al-Fattah)

Based on the result of pre research above, the students' motivation is still less. Percentage of students' motivation is 39,37%. The researcher observes the pre research from out side of the class and the teacher use lecturing and catechizing method in learning process, and the situation of class such as picture below:

(Picture 4.1. learning process on pre research)

In the learning process teacher explain the material and the students' listen to the teacher. When the teacher explains the material students' fell bored and not active in learning process. Some of the students busy to play something with them selves; students' had a talk with their friends instead of giving their attention to the teacher. Then the teacher give the opportunity to the students' to ask the question with raise their hand, but there is no respond. So it indicated that student's motivation is still less and also support with the result score of pre test still low, then it can influence the student's achievement. The score still under the standard minimum and the average score are 50.

Based on the result of pre research, students not enthusiastic and don't have interest in learning process of natural science. It can happen

because the learning process use monotonous the method and strategy, so the students' only keep silent and listen to the explanation of teacher, some of the students' busy to play something with them selves, and fell sleepy. Future researchers conduct the pre test on October, 19th, 2012. The results of pre test shows that the motivation in learning motivation in learning natural science is still less.

Score of pre test:

No.	Interval of score	Frequentation	Status
1.	96-100	-	
2.	91-95	-	
3.	86-90	-	
4.	81-85	-	
5.	76-80	-	
6.	71-75	-	
7.	66-70	2	Failed
8.	61-65	-	
9.	56-60	4	Failed
10.	51-55	-	
11.	46-50	6	Failed
12.	41-45	-	
13.	36-40	1	Failed
14.	31-35	3	Failed
15.	00-30	-	

Total	16	

(Table 4.4 Score of Pre test)

Based on table above showed that 16 students are failed in pre test, because the standard minimum score is 78 and the students not achieved the score. In other hand there is 2 students are not come to school because of sick. It can show that the students less in motivation to learning natural science subject so can influence the student's achievement.

To solve the various problems in that class, teacher must more creative to use method, model or media that can make the learning process interest.

Further, the teacher give the feed back students' with give the question to the students, but only two students answer the question with there is no spirit in students self, so that the situation of learning process is not conducive. For the last the teachers give homework for students and close the meeting by reciting Hamdallah.

The learning process that uses conventional method is not suitable with the material and characteristic of students'. In learning process there is no interrelation to the daily live, then the students' less the motivation to learning natural science. Based on the result of pre test that have been done, so need strategy, model, or media that can make students' becomes active and creative that is with the implementation of VAK (visual, auditory, kinesthetic) model through interactive multimedia to improve student's motivation. With the using media of learning as a tool to

conveying the material and do the reflection in every meeting to know how far the success of learning process which has been applied.

3. Planning Action

Besides conducting research, the researcher was made planning as follows:

a. Make assessment sheets to evaluate students learning motivation.
b. Prepare learning media namely macromedia flash players, wonder share quiz creator and video.
c. Make a design of teaching planning process
d. Make question for pre test
e. Make question for post test
f. Make question for last evaluation
g. Make format for students assessment
h. Make questionnaire for observer
i. Make questionnaire for students
j. Make worksheets to do observations
k. Make worksheets for task of students

4. Cycle I

In the cycle 1 is conducted by one meeting. Before join the cycle I, the researcher held a pre research as an act to checking the situation on the class and the researcher held a pre test. This case can be starting point to measure the comparison between after and before the classroom action research. In every cycle the researcher implements VAK (visual, Auditory, kinesthetic) model through interactive multimedia to improve student's motivation.

Implementation of this cycle conducted on October, 22nd, 2012 at 4th grade classroom with one meeting and the material about cycle of living thing

a. Planning of cycle I

On the planning action on cycle I, the researcher use VAK (visual, auditory, kinesthetic) model through interactive multimedia to improve students' motivation of natural science subject about cycle of living thing. With this learning model, the researcher try to help the students' to memorize the material with maximized the ability of students' with the visual, auditory and kinesthetic.

In this phase of planning action, the researcher makes some planning such as:

a) Decided time and place for research

In this phase, the researcher discuss with natural science teacher to determine time and place for research. Implementation of VAK (visual, auditory, kinesthetic) model through interactive multimedia start on Monday, October, 22nd, 2012 until Thursday, October, 25th, 2012, and place of this research at 4th grade classroom MI Al-Fattah Malang.

b) Make a design of teaching planning process.

On learning preparation, the researcher and the teacher of natural science subject make a teaching planning process that use VAK (visual, auditory, kinesthetic) model through interactive multimedia. Preparation of teaching planning process, the researchers prepared before implementing

teaching and learning activities at a meeting in each cycle. Teaching planning in the cycle I, can be seen on list of appendix.

c) Prepare the research instrument for the research to improve student's motivation about cycle of living thing.

In this phase, the researchers prepare the instruments or media that used for research. The media and instrument is question test, macromedia flash player, wonder share quiz creator, piece of picture puzzle that contains the picture of living thing live cycle process. And the students' must sticking on paper and fill the worksheet

b. Action of cycle I

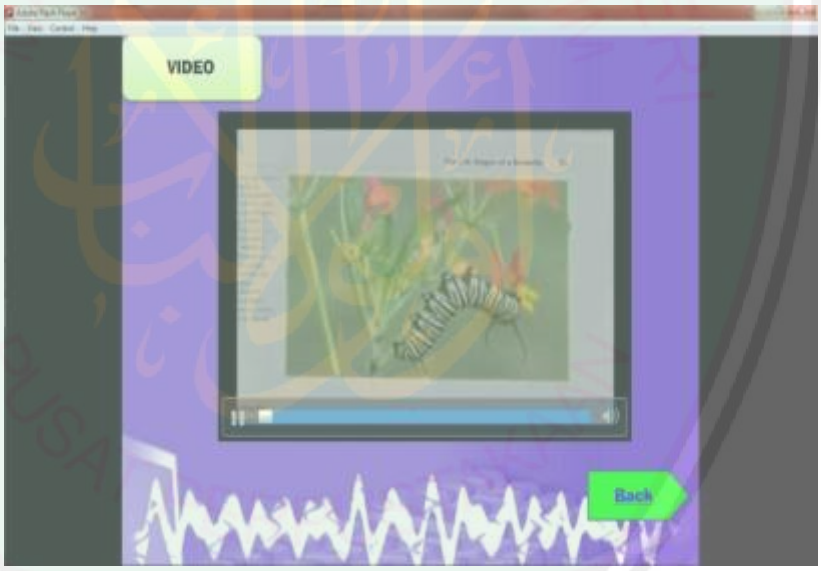
1) Introduction

Teacher collaborated with researcher to prepare media that used for implementation of VAK (visual, auditory, kinesthetic) model through interactive multimedia and material about cycle of living thing. At the first time teacher make a students' interest to the material by bringing some thing new, that is a big brooch and the shape is butterfly. The teacher uses it in the veil. This brooch make from the paper, with this media students can thinking "why the teacher use a big butterfly brooch from paper in her veil?" With this brooch can make cognitive conflict (brain storming) in the students mind, and students' interest to asking question and can flourishing the motivation of students at the first time. Then the teacher ask the question to the students', "what the shape of this brooch?" and then students answer "butterfly". And the teacher continues the question

“where is the butterfly come from?” then the students’ answer “cocoon”. Afterwards the teacher makes the interrelation between butterflies with theme for today, namely: cycle of living thing.

2) Core activity

The teacher played video about cycle of living thing. The purpose of the teacher played this video is to make a students’ interest to join the learning process and to give the information about the concept cycle of living things.



(Picture 4.2 Video about live cycle of living thing)

In this video completed with students worksheet. Besides watching the video, students’ must answer the question in the video. Such as picture below:

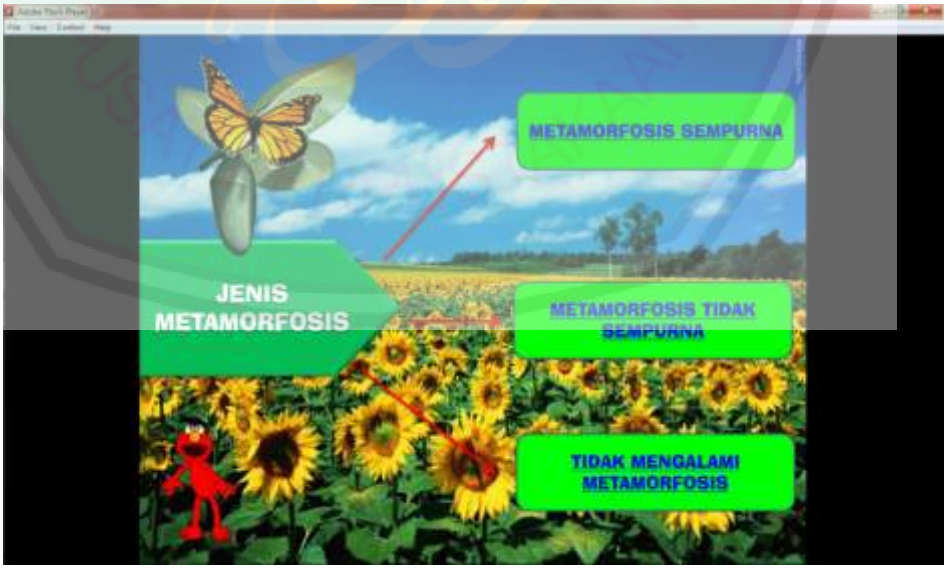
(Picture 4.3 Students' worksheet on video of living thing)

Afterwards the teacher divided the students' become 5 group. The teacher give the piece of picture puzzle that contain the picture of living thing live cycle process to the students' and the students must arrange it become a good structure and also the students must sticking on paper and fill the worksheet.

(Picture 4.4 learning process to arrange puzzle into good structure)

In other hand the other friends must give the comment about the picture, so it can make the discussion between the students', and the teacher give the comment about the result of discussion. Then the teacher give the question, "what is the structure of this metamorphosis is correct?" and the teacher give more explanation about metamorphosis and explain the structure of metamorphosis, : egg → caterpillar → cocoon →butterfly.

In order to make the students' more understand about the material, the teacher explains the material with macromedia flash player and discusses the material with the students' and give explanation that metamorphosis divided in two parts, namely: complete metamorphosis and uncompleted metamorphosis. And explain what kinds of animals are including to: *complete metamorphosis and uncompleted metamorphosis.*



(Picture 4.5 Material about live cycle of living thing)

To make the students' not bored in learning process, and make a student's fell fresh, teacher ask the students' to sing together, and the tittle of this song is "Song of butterfly metamorphosis and song of frog metamorphosis"

Song of butterfly metamorphosis:

Telur-telur, ulat-ulat
Kepompong, kupu-kupu.
Metamorfosis…… metamorfosis…….

Song of frog metamorphosis:

Kecebong mandi di kolam
Kumul-kumul berenang
Kaki depan tuk, kaki belakang tuk
Ekor hilang jadilah kodok..

In that song include the lyrics which explain about the phase of butterfly metamorphosis and frog metamorphosis. With sing this song students' can more easily to remember about the phase of metamorphosis.

Afterwards the teacher shows presentation from LCD projector by use wonder share quiz creator application that contained the questions. Wonder share quiz creator can make our question equipped with picture, music, or video, this application can make the student's interest to answer the question.

(Picture 4.6 question on Wonder share quiz creator application and the type of question is multiple choices)

We can make variation of question with this application, such as: true false, matching, short answer, multiple choices etc. And also we can see the result or score. It can make the teacher easy to correct the student's task. Wonder share quiz creator can make the students more active to answer the questions which give from the teacher.

3) Close activity

In the close activity teacher ask some question about material and also do the discussion with the students. Teacher give the positive feedback and give the reinforcement with orally, writing, or give the reward to the students'. The teachers give the conclusion, if the students' don't understand about the material and students' can ask the question to the teacher.

c. Observation of cycle I

The observation implemented during the learning process of natural science subject with observes the object directly. At the first meeting when

the implementation of VAK (visual, auditory, kinesthetic) model through interactive multimedia, the students' looks clumsy. But after 15 minutes the students looks more active in the learning process. The teacher tries to give something new in the learning process to make students' interest to join learning process.

In this research, the teacher of natural science subject collaboration with the researcher. The researcher give the concept of learning process related with the material and the teacher applied the concept from the researcher and in this research, the researcher become a direct observer in the learning process and also help the teacher to prepare learning media. Learning design and media toward VAK aspect described on table 4.5:

Learning Design and Media Toward VAK Model				
No	**Cycle I**	**Visual Aspect**	**Auditory Aspect**	**Kinesthetic Aspect**
1.	Puzzle of living thing	√	-	√
2.	Team work and group discussion	√	√	√
3.	Macromedia flash player	√	√	√
4.	Wonder share quiz creator (Design of question is multiple-choice)	√	√	√

(Table 4.5 Learning design and media toward VAK model on cycle I)

Based on table 4.5 can be conclude that learning design and media suitable with all aspect of VAK model. With VAK model the teacher can maximize the students' ears, eyes and body movement in accepted the materials. Then it can make the students' easy to understanding the material.

In other hand, the researcher also carry out the research to collect data related to improve students' motivation, among others: Students' active in learning process, students' active to join teamwork, students be able to answer the question from the teacher, time management to do the worksheet, able to practice indicator of material, students pay attention the teacher explanation during the learning process, students pay attention to teachers instruction. This case carry out to make a strongest in the collected the real data suitable with the real condition.

d. Reflection of Cycle I

Goals of the implementation of learning process on cycle 1 to improve students' motivation on natural science subject and the material about cycle of living thing. On the first meeting, with the implementation of VAK (visual auditory, kinesthetic) model through interactive multimedia students' still shy and clumsy to join the learning process, because of media is so interested for students, so they enthusiasm to join the learning process.

Result of learning motivation observation on cycle I:

No.	Indicator	Total score	Average score
1.	The liveliness in following	47	2,93

	lessons		
2.	Cooperation in group	45	2,81
3.	Motivation in exploring natural science subject	42	2,65
4.	An effort to complete the task with better	48	3
5.	Motivation to get a good score	46	2,87
Percentage			**71,87%**

(Table 4.6 Result of learning motivation observation on cycle I)

Based on table 4.4 can be conclude that learning design and media suitable with all aspect of VAK model. According to the evaluation score of post test in cycle I we can see that the average score of pre test is 50 and the average score of post test is 70,625. So the cycle 1 the percentage of improvement is 41, 25%. And the increases of motivation is 71,87%. But the increases are not maximum so that it needed revision learning in an effort to increase the motivation students in learning.

The result of the observation which has been applied on a cycle I described that the implementation of (visual, auditory and kinesthetic) model through interactive multimedia had a several obstacles are:

1. Students' still not accustomed to using model and media which has been done.
2. Students' still afraid to ask questions which if they don't understand.

3. In the learning process at that time there are still some students' who speak with their friends.
4. Learning is still dominated by active students' only.
5. There are still four students' se value below the minimum standard criteria (KKM)
6. Not all implementation teaching planning process done for an indefinite time and time management of researchers is not good

To make learning to be more interested in learning process then we need to accustom the learning process that could activate all of students' and the students' able give opinion on learning process and not afraid to express his opinion and to create an atmosphere of class to be enjoy. Then the researcher continues to cycle II, to solve the various problems in cycle I.

e. Revision of cycle I

Based on the results of reflection above then in this cycle need a revision and improvisation, then the weakness on cycle I is not happening in the next cycles.

Some form of the revision and improvisation such as:

1. Give a description about VAK (visual, auditory and kinesthetic) model through interactive multimedia to the students' in order to students know about the step of learning process and can make the students not confused.

2. Give the motivation to the students' in order to students' express their opinion and not afraid to express their opinion.
3. Prepare all of thing that related to the cycle II, so the weakness in cycle I is not happening in the next cycle
4. Make a good time allocation for learning process.

Because of the researcher found a various obstacles or problem in cycle I, then the researcher continues to cycle II

3. Cycle II

In the cycle II conducted in one meeting. The Implementation of this cycle conducted on October, 25th 2012 with one meeting and the material about cycle of living thing, this cycle to continue the cycle I. The goals of cycle I is to solve the various problems in the cycle I. After we know the result of reflection the cycle I, the researcher will keep using the VAK (visual, auditory, kinesthetic) model through interactive multimedia but with a little innovation in the learning process. In cycle II the researcher utilize a real animal which sustain the process of metamorphosis.

a. Planning of cycle II

Based on the reflection in cycle I, the things that prepared in a planning process are:

1) Make a teaching planning process
2) Develop the scenario of learning
3) Prepare the learning sources
4) prepare the assessment sheets to evaluate students learning motivation

5) Allocation time prepare properly

6) Prepare the tools to do the experience, such as : caterpillar, bottle, knife, apple, and sawdust

7) Prepare the students' worksheet to do the experience.

b. Action of cycle II

1) Introduction

The implementation of cycle II was held on 25 October 2012 at 4th grade classroom. At the first time teachers give greetings and begin the activities with reciting Basmallah. Teacher say "how are you" and checking the presence of students. To flourishing the motivation, the teacher asks the students to sing together and the title of song is basmallah:

Do not forget
Don't ever forget
We have to say basmallah….
Before you do your activities, before you do the nice thing,
Always remember what your father says, remember your mother say heyy….. heyyy….
Bislimilahirohmanirohim,……
We have to say all the time…..

To remind the material about the cycle of living, the teacher asks the students sings the songs that have been learned at previous meetings about frog metamorphosis:

Kecebong mandi di kolam
Kumul-kumul berenang
Kaki depan tuk, kaki belakang tuk
Ekor hilang jadilah kodok

After sing a song, the teacher conveying achievement Indicators and competence that is expected. Then the teacher showing brooch shaped beetles, Then the teacher ask the question to the students': "what the shape of this brooch?" and then students' answer "beetles". And the teacher continue the question "where is the beetles come from?" and the teacher clarify that today we will do the experiment to observe the process of changing the life cycle of a caterpillar be a beetle.

2) Core activity

The teacher ask the students to presented the results of the group work that they have done previously meeting about the life cycle of living thing in front of the class in order to make a discussion between a students' and teacher as a facilitator.

(Picture 4.7 students' presentation about their task in front of class)

Then the teacher asks to collect the materials that they bring from home in order to do the experiment. Teachers give the hand out sheets of observation. And the teacher divided the students' into five groups. After

that students' doing experiment with teacher guidance, students observe the changes that occur on the caterpillar, and then fill the worksheet.

(Picture 4.8 students' experiment to observe live cycle of caterpillar)

On the students' experiment can be seen from students' face looked enthusiastic in following learning process. The Students' is very excited to conduct the observation. They observed the live cycle of caterpillar. The students' look happy and excited in doing the experiment. They also not bored and sleepy although learning is conducted after the rest.

Then the teachers showed macromedia flash player program which contains the material about cycle of living things that needs to be compiled into the correct arrangement, and this media to clarify the cycle of living thing.

(Picture 4.9 Task for students on macromedia flash player

Further the teacher also showed wonder share quiz creator program that contain with question about cycle of living this, this question equipped with picture, music and also sound from researcher recording.

(Picture 4.10 Question on wonder share quiz creator application and the type of question is multiple true false)

The students' answer the question with enthusiastic and full of spirit, because the media is very interested and the students' face looked happily.

4) Close activity

In the close activity teacher ask some question about material and also do the discussion with the students'. Teacher give the positive feedback and give the reinforcement with orally, writing, or give the reward to the students. And the teacher gives the conclusion. If the students' don't understand about the material, students' can ask the question to the teacher.

c. Observation of cycle II

The implementations of VAK (visual, auditory and kinesthetic) model through interactive multimedia can increase the learning motivation. It can be seen from the spirit of the students' in doing the practice as well as in working on tasks that have been provided by researcher. The student's faces look happily; it is indicate that the students' conduct the learning process with pleasure, not saturated/no bored and sleepy at the time.

Learning design and media toward VAK aspect described on table 4.7:

Learning Design and Media Toward VAK model				
No	**Cycle II**	**Visual Aspect**	**Auditory Aspect**	**Kinesthetic Aspect**
1.	Experiment	√	√	√
2.	Team work and group discussion	√	√	√
3.	Crossword	√	-	√

3.	Macromedia flash Player	√	√	√
4.	Wonder share quiz creator (Design of question is true false)	√	√	√

(Table 4.7 Learning design and media toward VAK model on cycle II)

Based on table 4.7 can be conclude that learning design and media suitable with all aspect of VAK model. Various design of learning makes students enthusiasm in learning process.

d. Reflection of cycle II

Based on observation in every cycle we can take a conclusion that the implementation of VAK (visual, auditory and kinesthetic) model through interactive can improve students' motivation. Based on the observation showed that any increasing in every cycle.

Result of learning motivation observation on cycle II:

No.	Indicator	Total score	Average score
1.	The liveliness in following lessons	63	3,5
2.	Cooperation in group	62	3,44
3.	Motivation in exploring natural science subject	61	3,38
4.	An effort to complete the task with better	60	3,33

5.	Motivation to get a good score	62	3,44
Percentage			86,11%

(Table 4.8 Result of learning motivation observation on cycle II)

The increases of students motivation from cycle I to cycle II is from 71,87% improve to 86,11%. And about the score of evaluation from cycle I the average score is 70, 62 and in cycle II the average score is 84,52. So the cycle II the percentage of improvement is 19, 68%.

In order to get more information about qualitative data in the implementation of VAK (visual, auditory, kinesthetic) model through interactive multimedia to improve student's motivation on natural science 4th grade at MI Al-Fattah Malang, the researcher conduct interviews to teachers and students who are designated as informant.

Further the results of the interviews with teachers of natural science subject in MI Al-Fattah Malang. The researcher gives the question to Mrs. Indah Sulistyaningtyas. S.Pd as natural science teachers after the learning process of natural science subject:

Researcher : " Apa pendapat ibu mengenai implementasi model pembelajaran VAK (visual, auditory, kinesthetic) melalui interactive multimedia untuk meningkatkan motivasi belajar siswa?"

Mrs. Indah : "Saya suka dengan diterapkannya model pembelajaran VAK (visual,auditory, kinesthetic) melaui interactive multimedia pada pembelajaran IPA, anak-anak terlihat antusias, dan semangat mengikuti pelajaran IPA. Ketika ditampilkan aplikasi wondershare quis creator tadi anak berlomba lomba menjawab pertanyaan yang guru berikan.

Biasanya anak malu-malu kalau disuruh menjawab pertanyaan yang guru berikan.[51]

Researcher : "Apakah yang terjadi setelah penerapan model pembelajaran VAK (visual, auditory, kinesthetic) melalui interactive multimedia?"

Mrs. Indah : "Siswa lebih bersemangat dalam mengikuti pelajaran IPA, model pembelajaran VAK dengan media yg dibuat yang bermacam-macam membuat siswa merasa tertarik dan penasaran tentang pelajaran, seperti yang dilaksanakan pada pertemuan pertama ada potongan puzzle-puzzle daur hidup katak, nyamuk, kecoa, itu bisa mengaktifkan kinesthetic siswa, sedangkan video, wondershare, dan flashnya bisa memaksimalkan pemahaman siswa melalui visual dan audio. Serta experiment tentang mengamati daur hidup ulat yang berubah menjadi kumbang juga menarik untuk dilakukan."[52]

Researcher : "Apakah perbedaan antara model pembelajaran VAK (visual, auditory, kinesthetic) melaui interactive multimedia dengan model pembelajaran dan media yang lainnya?"

Mrs. Indah : "Perbedaan model pembelajaran VAK dengan model pembelajaran lainnya adalah dapat mengakomodir modal kecerdasan yang sudah dimiliki oleh anak, dengan model pembelajaran VAK siswa bisa memahami pelajaran dengan berbagai macam cara. Seperti kita ketahui bahwa tipe anak dalam belajar bermacam-macam, ada yang dengan mendengarkan, melakukan sesuatu, melihat gambar-gambar dan lain-lain. Dengan model pembelajaran ini bisa memaksimalkan fungsi mata, telinga dan gerak dalam pembelajaran sehingga akan memudahkan siswa untuk memahami mata pelajaran."[53]

[51] Result of interview with Mrs. Indah Sulistyaningtyas. S.Pd as natural science teacher on MI Al-Fattah Malang in 4th grade class at 09.45- 09.50 October, 23nd 2013

[52] Result of interview with Mrs. Indah Sulistyaningtyas. S.Pd as natural science teacher on MI Al-Fattah Malang in 4th grade class at 09.50 -0955 October, 23nd 2013

[53] Result of interview with Mrs. Indah Sulistyaningtyas. S.Pd as natural science teacher on MI Al-Fattah Malang in 4th grade class at 09.55-10.00 October, 23nd 2013

The researchers also conduct interviews with the students'. The results of these interviews with Ahmad Syaifullah yusuf as a student 4th grade at MI Al-Fattah:

Researcher : "Apakah pendapat kamu mengenai proses pembelajaran dan media yang digunakan?"

Saifullah : "Bagus bu, menarik , saya suka pas menyusun potongan puzzle prosess metamorfosis aku juga suka soal-soal yang ada suaranya tadi"[54]

Researcher : "Apakah isi pembelajarannya menarik dan mudah difahami?"

Saifullah :"Pembelajarannya mudah dan menarik, saya senang dan saya bersemangat untuk belajar"[55]

Researcher : "Apakah pembelajarannya menarik minat kamu untuk belajar?"

Saifullah : "Iya bu saya bersemangat"[56]

The results of these interviews with Ahmad Dina Yulianti as a student 4th grade at MI Al-Fattah:

Researcher : "Apakah pendapat kamu mengenai proses pembelajaran dan media yang digunakan?"

Dina : "Bagus bu saya suka, saya suka pas disuruh melakukan eksperimen mengamati pertumbuhan ulat, meskipun geli tapi suru., saya juga suka video dan soal-soal yang ditampilkan dari LCD tadi"[57]

[54] Result of interview with Ahmad Syaifullah yusuf as student's 4th grade at MI Al-Fattah in4th grade class at 10.15- 10.20 October, 23nd 2013

[55] Result of interview with Ahmad Syaifullah yusuf as student's 4th grade at MI Al-Fattah in4th grade class at 10.20-10.25 October, 23nd 2013

[56] Result of interview with Ahmad Syaifullah yusuf as student's 4th grade at MI Al-Fattah in4th grade class at 10.25-10.30 October, 23nd 2013

[57] Result of interview with Dina yuliantias student's 4th grade at MI Al-Fattah in4th grade class at 10.30-10.35 October, 23nd 2013

Researcher :"Apakah isi pembelajarannya menarik dan mudah difahami?"

Dina :"Mudah difahami bu, saya semangat belajar bu, ibu jadi guru IPA disini daja,hehhehe sambil tersenyum".[58]

Researcher : "Apakah pembelajarannya menarik minat kamu untuk belajar?"

Saifullah : "Iya bu, saya semangat sekali"[59]

Based on the result of interviews with natural science teacher and students, we can take a conclusion that the implementation of VAK (visual, auditory, kinesthetic) model through interactive multimedia can improve students' motivation.

Indicator of success by the implementation of VAK (visual, auditory and kinesthetic) model through interactive can improve students' motivations are:

1. Motivation of students' in learning process increases at least 75 %
2. Criteria of students' high motivation achieved.
3. Students' interested in subjects that are taught.
4. Active in answer the question from the teacher suitable with the material.
5. Never give up in solving the problems in learning process.
6. Give the feedback or give the question to the teacher.
7. Students' always remember and learn that lesson again.
8. Students' show enthusiasm

[58] Result of interview with Dina yulianti as student's 4th grade at MI Al-Fattah in4th grade class at 10.35-10.40 October, 23nd 2013

[59] Result of interview with Dina yuliantias student's 4th grade at MI Al-Fattah in4th grade class at 10.40-10.45 October, 23nd 2013

CHAPTER V

DISCUSSION

The focus of this research is the efforts to improve learning motivation of students' using VAK (Visual, auditory, and kinesthetic) model through interactive multimedia on natural science subject. Learning motivation determine the result of learning achievement. If the motivation that gives to students' properly, it can make the learning process more successful. Further the motivation always determines intensity of student learning effort.[60]

Based on pre research results that students' less in motivation, then on the cycle I researcher applies the VAK (visual, auditory and kinesthetic) model through interactive multimedia. With implementation of learning model and media that can help the students to flourishing the motivation on natural science learning process.

Learning motivation on natural science 4th grade at MI Al-Fattah Malang can be grouped into two parts, namely, intrinsic motivation and extrinsic motivation. Intrinsic motivation is motivation that comes naturally or pure from the students' self as a form of awareness from the bottom of heart.

Extrinsic motivation is case or state that coming from the outside of student individual that leads him to do the learning.[61] This form of extrinsic motivation related to the learning activities, such as: Students' study hard to get the gift that

[60] Sardiman A.M, *Interaksi dan Motivasi Belajar Mengajar* (Jakarta: Rajawali Pers, 2001), page 82-84.
[61] Muhibbinsyah, *Psikologi Pendidikan dengan Pendekatan Baru*, Cet. Ke-7, (Bandung : Remaja Rosdakarya, 2002), page 82.

promised by his parents, appreciation and gift, regulation in the school, the examples is good attitude from the parents or teacher. It is concrete examples of extrinsic motivation that can encourage students' to learn.

A. Planning process in implementing VAK (visual, auditory, kinesthetic) model through interactive multimedia.

Planning process in implementing VAK (visual, auditory, kinesthetic) model through interactive multimedia on natural science subject based on concepts that contained in VAK learning model. Implementation of research is conducted twice, cycle I conducted on October, 22nd, 2012 and cycle II conducted on October, 25th, 2012 at 4th grade classroom with two meeting.

Learning natural science on MI Al-Fattah Malang suitable with the material that will be learning, that is cycle of living thing. On learning preparation, the researcher and the teacher of natural science subject make a teaching planning process that use VAK (visual, auditory, kinesthetic) model through interactive multimedia. Preparation of teaching planning process, the researchers prepared before implementing teaching and learning activities at a meeting in each cycle. This is implemented by the research in order facilitate and accelerate the teaching and learning activities that will be conducted in the classroom, on the preparation of this teaching planning process the researchers organize learning activities as a whole in order to achieve the competencies that have been planned.

In other conduct the research, the researcher makes a planning process as listed below:

1. The first step of this planning is to define the class that will be used as the object of research that is 4th grade classroom.
2. Define the subject matter that is cycle of living thing.
3. Make assessment sheets to evaluate students' learning motivation.
4. Preparing media of learning namely macromedia flash players, wonder share quiz creator and video.
5. Make a design of teaching planning process for 2 meeting.
6. Make question for pre test.
7. Make question for post test.
8. Make question for last evaluation.
9. Make format for student's assessment.
10. Make questionnaire for observer
11. Make questionnaire for students'
12. Make worksheets to do observations
13. Make worksheets for task of students.

B. Process of implementation VAK (visual, auditory, kinesthetic) model through interactive multimedia.

The implementation of pre research the researcher conducts the investigations and held pre test with conventional learning strategies that use lecturing method and catechizing. The teacher explains in front of the class while the students listen and write the teacher explanation.

Through the result of pre research, can be knew that the conventional method of learning with lecturing and catechizing make the students' less in

motivation to follow learning process of natural science subject and students' still afraid to express their opinion and ask the question. Then it can make the result in the achievement of student learning is not expected.

We can conclude that if the teacher teaches with a lecturing method, students will remember only 20% from the material, because the students just listen only. Contrarily if the teacher asked the students' do something and reporting then they would remember as much as 90 %. This case related to opinion of Confusius cited at Wahid Murni's book, he suggested "what I **heard**, i forgot; what I **see,** I remember; and what I **do,** I understand.[62]

Further it is clear that method of lecturing and catechizing is not conducive if applied in learning activities that tend to require observation and experiment as a natural science lessons.

Rose and Colin Nicholl suggested that the research that conducted of more than 5,000 students in the United States, Japan, Hong Kong, and grade 5 to 12, indicated that a trend of studying 29% for visual, 34% for auditory, and 37% for kinesthetic.[63]

Based on opinion of Michael Grinder (the author of Righting the Educational Canveyor book), he suggested that in a group that consist of 30 students, there are 20 people have a tendency on visual, auditory, and kinesthetic, therefore they are able to learn no matter how the subject was delivered. 20% from that group only like to one of learning style, so they had

[62] Wahid Murni, *Penelitian Tindakan Kelas* (Malang: UM Press, 2008), P. 68
[63] Colin, Rose dan Niccol, Malcolm J. 2002. *Accelerated Learning* (Bandung : Nuansa) page 131

great difficulty to learn something. Further Michael Grinder combined all of learning style includes visual, auditory and kinesthetic in learning process.[64]

Based on Michael Grinder opinion, then the researcher combine all learning style includes visual, auditory and kinesthetic in learning process on 4th grade students' at MI Al-Fattah Malang, especially on natural science subject and the material about cycle of living thing. And the researcher makes a learning design and learning media suitable with all aspect of VAK model. Various design of learning makes students' enthusiasm in learning process. (Learning design and learning media we can see on table 4.5 and 4.7)

On cycle I the teacher implementing short card for maximize children kinesthetic function. They are very enthusiasm in learning activity. Then the teacher showed macromedia flash player on LCD projector that contained cycle of living thing material, this method to maximize student's visual ability and students' auditory. For evaluation the teacher use wonder share quiz creator.

With the implementation of VAK model through interactive multimedia in the first meeting make a students' more confident to express their opinion and it indicated the students' more excited than in pre test meeting. The students has more motivation to learn natural science subject, this case can be showed by expressing opinions although most are still dominated by student's active.

Based on observation results in assessment sheets learning motivation on cycle I indicate that any increase in learning motivation trough interactive

[64] Colin, Rose dan Niccol, Malcolm J, loc. cit page 132

multimedia, the percentage of improvement is 71,87 % , but it still not satisfactory. Then the researcher continues to cycle II.

At the first meeting in cycles II, can be seen from students face looked enthusiastic in following learning process. The Students' is very excited to conduct the observation. They observed the live cycle of caterpillar for maximize children kinesthetic function. The students look happy and excited in doing the experiment. They also not bored and sleepy although learning is conducted after the rest.

On cycle II, the teacher asks the students' to present the result of teamwork in front of class and the other friends give the comment. This case makes students' more confident to express the opinion and also maximize children visual and auditory. In order to the students' not fell bored, the researcher makes a variation of question use wonder share quiz creator application.

With VAK (visual, auditory and kinesthetic) model hope students' can remember lesson thoroughly. According to the opinion of Confusius, he suggested that students' will remember 90 % in learning if learning is done by students' (what I **do,** I understand).

On cycle II, researchers applied VAK (visual, auditory, and kinesthetic) model through interactive multimedia to improve students' motivation and provide evaluation test at the last meeting. This learning model and media is used in order to the students practice to express their opinion through the practice or experiments that have been conducted. With the application of

wonder share quiz creator for the evaluation, it can maximize function visual, auditory and kinesthetic to answer the question that showed in LCD projector.

At the last meeting of this cycle, the researchers hold a daily evaluation test to check students understanding about the material in quantitative research toward learning process that had been studied. With the results of daily evaluation test, we can know the students achievement.

C. Assessment in implementing VAK (visual, auditory, kinesthetic) model through interactive multimedia.

According to the evaluation score of motivation we can see that the students' motivation percentage on pre research is 39,37% and the student's motivation percentage on cycle I is 71,87%. And the average score of pre test is 50 and the average score on cycle I is 70,625. So the percentage of score test improvement is 41, 25%. The increases of students' motivation on cycle I is not achieved 75% so that it needed revision learning in an effort to increase the students' motivation on cycle II.

The percentage of student's motivation on cycle I is 71,87% and the percentage of students' motivation on cycle II is 86,11%. And about the average score of evaluation on cycle I is 70, 62 and in cycle II the average score is 84,52. So the cycle II the percentage of test improvement is 19, 68%. On cycle II the percentage of students' motivation more than 75%, its indicate that cycle II is successful.

As for the question form on the intrinsic motivation instrument or questionnaire that propagated by researchers to respondents consist of five

indicators, namely: motivation to learn; enjoy following the lesson; completing the task; developing their interest and increasing the knowledge. Total item of variable to intrinsic motivation is 20 items with number of respondents is 18 people. Questionnaire arranged based on a Likert scale modified with alternative answers is strongly agree, agree, doubtful, disagree, and strongly disagree.

Based on the result of questionnaire that support with the result of students' motivation on cycle II, we can conclude that the students' enjoy in learning natural science subject and they are interests in learning media and also VAK model through interactive multimedia and also can improve students' motivation on natural science subject. (The result of questionnaire we can see on appendix 7).

Based on empirical data analysis and results can be taken a conclusion. First, form used VAK (visual, auditory and kinesthetic) model through interactive multimedia is effective in increasing students learning motivation in natural science subject that use the tools or material to practice the experiment that suitable with learning material. Second, with implementation of VAK (visual, auditory and kinesthetic) model through interactive multimedia can improve student's motivation on natural science 4th grade at MI Al-Fattah Malang.

An indicator of success by applying VAK (visual, auditory and kinesthetic) model through interactive multimedia is as follows:

1. An indicator of success

An indicator of success that used to determine the successful of implementation VAK (visual, auditory and kinesthetic) model through interactive multimedia in order to improve students' motivation are two criteria :

a. Qualitative indicators is students' enthusiasm to join learning process towards learning model and media that developed including:

1) Enthusiastic to the task that given
2) Moved to always learn.
3) Moved to always do the job that suitable with their interest
4) Aroused to realize their ambition
5) Do something because there is a stimulus
6) Have a intention to always remove the laziness
7) Has a strong ambition
8) Follow the learning with happily
9) Not bored with learning
10) Always not lazy to studying
11) Ask the question to looking for information
12) Always felt curious to something
13) An increase in students learning motivation which can be seen from the observation sheets that increase on each cycle.

b. Qualitative indicators can be seen on the observation sheet shows that students' motivation increased from pre test until the cycle II. (Look at appendix 1-5).

CHAPTER VI

CONCLUSION AND SUGGESTION

A. Conclusion

Based on the data description on chapter fourth and discussion on chapter fifth, the conclusion of research result as listed bellow:

1. The learning planning conducted in way of prepared the different lesson plan, learning media and learning material. On learning preparation, the researcher and the teacher of natural science subject make a teaching planning process that use VAK (visual, auditory, kinesthetic) model through interactive multimedia. Preparation of teaching planning process prepared before implementing teaching and learning activities at a meeting in each cycle. The learning material about live cycle of living thing and learning media with macromedia flash player and wonder share quiz creator.
2. The implementation of VAK model on cycle I with implementing short card for maximize children kinesthetic function. Then the teacher showed macromedia flash players on LCD projector for maximize students' visual ability and students' auditory. For evaluation the teacher use wonder share quiz creator. On cycle II, the teacher asks the students' to present the result of teamwork in front of class and the other friends give the comment. This case makes students' more confident to express the opinion. Then the learning process continued with experiment to observe the live cycle of caterpillar. The students' look happy and excited in doing the experiment.

Implementation of VAK (visual, auditory, kinesthetic) model through interactive multimedia runs smoothly, design of teaching planning process success as planned. The situation learning process is conductively, students' faces look happily, not saturated or not bored and sleepy.

3. Result of implementation VAK (visual, auditory, kinesthetic) model through interactive multimedia can improve the intention, spirit and motivation in learn natural science subject. Interactive multimedia also can make the students' easy to understanding the material. Based to the evaluation score of motivation we can see that the students' motivation percentage on pre research is 39,37% and the student's motivation percentage on cycle I is 71,87%. And the average score of pre test is 50 and the average score on cycle I is 70,625. Increases of students' motivation on cycle I is not achieved 75% so that it needed revision learning in an effort to increase the students' motivation on cycle II. The percentage of student's motivation on cycle I is 71,87% and the percentage of students' motivation on cycle II is 86,11%. And about the average score of evaluation on cycle I is 70, 62 and in cycle II the average score is 84,52. On cycle II the percentage of students' motivation more than 75%, its indicate that cycle II is successful. Based on empirical data analysis and results can be taken a conclusion that implementation of VAK (visual, auditory and kinesthetic) model through interactive multimedia can improve student's motivation on natural science 4th grade at MI Al-Fattah Malang.

B. Suggestion

1. Teachers should know and comprehend more about model, approach and methods what should be applied to achieve a basic competence that targeted.
2. Teacher should prepare a various media to make students' interest with the material and can flourish the students' motivation in the learning process. Such as the media from researcher namely: wonder share quiz creator, macromedia flash player etc.
3. Professionalism for a teacher in teaching and educating as factor that supporting the success of students' in learning process. The teacher must expert in teaching with various model, strategy or methods in order to solve the problem in learning process.

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APPENDIX

KEMENTERIAN AGAMA
UNIVERSITAS ISLAM NEGERI MAULANA MALIK IBRAHIM MALANG
FAKULTAS TARBIYAH
Jalan Gajayana Nomor 50 Telepon (0341) 552398 Faksimile (0341) 552398
Website:www.tarbiyah.uin-malang.co.id

Nomor : Un. 3.1/TL.001/1609/2012
Lampiran : 1 (satu) Berkas Proposal Skripsi
Perihal : **Penelitian**

15 Oktober 2012

Kepada
Yth. Kepala MI Al-Fattah
di-
Malang

Assalamu'alaikum Wr. Wb.

Kami mengharap dengan hormat agar mahasiswa di bawah ini:

Nama	:	Samrotul Fitriana
NIM	:	09140015
Fakultas/Jurusan	:	Tarbiyah / Pendidikan Guru Madrasah Ibtidaiyah (PGMI)
Semester/ Th. Ak	:	Ganjil, 2012/2013
Judul Skripsi	:	**The Implementation of VAK (Visual, Auditory, Kinesthetic) Model trough Interactive Multimedia to Improve Students Motivation on Natural Science at Madrasah Ibtidaiyah Al-Fattah Malang**

dalam rangka menyelesaikan tugas akhir/menyusun skripsi, yang bersangkutan mohon diberikan izin/kesempatan untuk mengadakan penelitian di lembaga/instansi yang menjadi wewenang Bapak/Ibu.

Demikian atas perkenan dan kerjasama Bapak/Ibu disampaikan terima kasih.

Wassalamu'alaikum Wr. Wb.

Dekan,

Dr. H. M. Zainuddin, MA
NIP. 19620507 199503 1 001

Tembusan :
1. Yth. Ketua Jurusan PGMI
2. Arsip

YAYASAN PEMBINAAN PENDIDIKAN ISLAM AL-FATTAH

MADRASAH IBTIDAIYAH AL-FATTAH KOTA MALANG

NSM: [illegible] NPSN : [illegible]

TERAKREDITASI "A"

Jl. Candi Telagawangi No. 39 Telp. (0341) 486690 Malang

Email: mi.alfattah@yahoo.co.id

Surat Keterangan

No. 219/ MIAF/ III/ 2013

Yang bertanda tangan di bawah ini,

Nama Lengkap	: ABD. HALIM, M.Ag
Jabatan	: Kepala MI Al-Fattah Kota Malang
Alamat	: JL. Candi Telaga Wangi No.39 Kota Malang

Menerangkan dengan sebenarnya, bahwa

Nama Lengkap	: Samrotul Fitriana
NIM	: 09140015
Fakultas	: Tarbiyah
Jurusan	: Pendidikan Guru Madrasah Ibtidaiyah Universitas Islam Negeri (UIN) Maulana Malik Ibrahim Malang

Yang bersangkutan Benar-benar telah melakukan penelitian dengan judul " The Implementation of Vak (Visual, Auditory, Kinesthetic) Model Trough Interactive Multimedia To Improve Students Motivation on Natural Science at Madrasah Ibtidaiyah Al Fattah Kota Malang" pada bulan Mei s/d Oktober 2012.

Demikian surat keterangan ini dibuat sesuai dengan sebenarnya, dan dipergunakan sebagaimana mestinya.

Malang, 27 Maret 2013

Abd. Halim, M. Ag

NIP. 197103281997031003

Tembusan Yth.

1. Kepala Kantor Kementerian Agama Kota Malang
2. Ketua YPPI Al Fattah Koya Malang
3. Arsip

CONSULTATION PROOF

Name : Samrotul Fitriana

ID Number : 09140015

Department : Pendidikan Guru Madrasah Ibtidaiyah

Advisor : A.Nurul Kawakib, M.A

Thesis : The Implementation of VAK (visual, auditory, kinesthetic) Model Through Interactive Multimedia to Improve Students' Motivation on Natural Science at Madrasah Ibtidaiyah Al-Fattah Malang.

No.	Date	Consultation	Signature
1.	October 18th, 2012	Preparation for research (Design of teaching planning process or RPP, learning media, format for student's assessment.) etc.	1.
2.	November, 1st, 2012	Chapter 1 and 2	2.
3.	November, 7th, 2012	Revision chapter 1 and 2	3.
4.	March, 13rd, 2013	Give chapter 3	4.
5.	March, 14th, 2013	Revision chapter 3	5.
6.	March, 18th, 2013	Revision chapter 1-3	6.
7.	March, 21st, 2013	Chapter 4	7.
8.	March, 27th, 2013	Chapter 4, 5 and 6	8.
9.	March, 28th, 2013	Abstract	9.

Malang, July, 28th 2013

Approved by,

Dean of Tarbiyah Faculty

Dr. H. M. Zainuddin, MA

NIP. 19620507 199503 1001

Appendix 1

EARLY CONDITION (PRE TEST)

STUDENTS MOTIVATION ASSESSMENT

No.	Name	M/W (gender man or woman)	Score	Doing the worksheet	Pay attention to the teacher
1	Achmad Syaifulah Yusuf	M	60	√	-
2	Aderisty Arista Nur Aisyah	W	50	√	-
3	Adeyanty Arista Nur Aisyah	W	60	√	√
4	Arman Maulana	M	30	-	-
5	Dimas Galang Pramono	M	50	√	-
6	Dina Yulianti	W	60	√	
7	Ella Rosida Octaviana Putri	W	30	-	-
8	Fadhil Mawla Reza Rahardi	M	Sick	-	-
9	Luhur Ahmad Difa' Pratama	M	60	√	√
10	Maulidatuzzilva	W	40	√	-
11	Mohamat Rizki Septiawan	M	50	√	-
12	M. Ikbal Romadhani	M	20	-	-
13	Muhammad Bintang Syura Jaya Nurcahya	M	50	√	-

14	Muhammad Iqbal Albani	M	Sick	-	-
15	Nikita Amelia Hafsah	W	70	√	√
16	Putri Fajri Hidayah	W	70	√	√
17	Siela Julita Cindi Mashitha	W	50	√	-
18	Wulan Zahrah Kuswana	W	50	√	-
Average score			**50**		

Appendix 2

STUDENTS MOTIVATION ASSESSMENT ON PRE RESEARCH

School Name : MI Al-Fattah

Subject : Natural Science

Class/semester : IV/ II

No	Name	The liveliness in following lessons				Cooperation in the group				Motivation in exploring natural science subject				An effort to complete the task with better				Motivation to get a good score				Score total
		1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	
1	Achmad Syaifulah Yusuf		√			√					√				√				√			9
2	Aderisty Arista Nur Aisyah		√				√			√				√				√				8
3	Adeyanty Arista Nur Aisyah		√				√			√					√				√			9
4	Arman Maulana	√				√				√				√				√				5
5	Dimas Galang Pramono		√			√				√				√				√				6

6	Dina Yulianti			√			√				√				√				√			11
7	Ella Rosida Octaviana Putri		√				√				√				√				√			10
8	Fadhil Mawla Reza Rahardi																					Sick
9	Luhur Ahmad Difa' Pratama	√					√			√				√					√			**7**
10	Maulidatuzzilva		√				√				√				√				√			9
11	Mohamat Rizki Septiawan	√					√				√			√					√			7
12	M. Ikbal Romadhani	√					√				√			√					√			7
13	Muhammad Bintang Syura Jaya Nurcahya		√				√			√				√					√			7
14	Muhammad Iqbal Albani																					Sick
15	Nikita																					

	Amelia Hafsah	√					√			√				√				√			7
16	Putri Fajri Hidayah		√			√				√					√				√		8
17	Siela Julita Cindi Mashitha	√				√					√				√				√		8
18	Wulan Zahrah Kuswana		√				√			√				√					√		8
	Total	27				25				23				22				24			126
	Average score	1,68				1,56				1,43				1,37				1,84			7,87
	Percentage	39,37%																			

Description

4 = very good **2 = enough**

3 = good **1= less**

Amount of students = 18

Score that achieved = 230

Total score = 126

Score of the liveliness in following lessons = 27

Score of Participation in the group = 25

Score of motivation in exploring natural science subject = 23

Score of effort to complete the task with better = 22

Score of Motivation to get a good score = 24

Average score of the liveliness in following lessons :

$$\frac{\sum \text{score obtained}}{\text{The number of student's}} = \frac{27}{16} = 1{,}68$$

Average score of participation in the group :

$$\frac{\sum \text{score obtained}}{\text{The number of student's}} = \frac{25}{16} = 1{,}56$$

Average score of motivation in exploring natural science subject :

$$\frac{\sum \text{score obtained}}{\text{The number of student's}} = \frac{23}{16} = 1{,}43$$

Average score of effort to complete the task with better :

$$\frac{\sum \text{score obtained}}{\text{The number of student's}} = \frac{22}{16} = 1{,}37$$

Average score of motivation to get a good score :

$$\frac{\sum \text{score obtained}}{\text{The number of student's}} = \frac{24}{16} = 1{,}84$$

Average score: $\frac{\sum \text{score obtained}}{\text{The number of student's}} = \frac{126}{16} = 7{,}87$

Percentage: $\frac{\sum \text{score obtained}}{\text{Total score}} \times 100\% = \frac{126}{320} \times 100\% = 39{,}37\%$

Appendix 3

STUDENTS MOTIVATION ASSESSMENT ON CYCLE I

School Name : MI Al-Fattah

Subject : Natural Science

Material : Cycle of living thing

Class/semester : IV/ II

No	Name	The liveliness in following lessons				Cooperation in the group				Motivation in exploring natural science subject				An effort to complete the task with better				Motivation to get a good score				Score total
		1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	
1	Achmad Syaifulah Yusuf			√				√				√				√					√	16
2	Aderisty Arista Nur Aisyah				√				√			√				√				√		17
3	Adeyanty Arista Nur Aisyah			√				√				√				√				√		15
4	Arman Maulana		√				√					√				√				√		13
5	Dimas Galang				√			√			√					√				√		15

	Pramono																			
6	Dina Yulianti				√			√			√					√			√		18
7	Ella Rosida Octaviana Putri			√			√			√					√				√		14
8	Fadhil Mawla Reza Rahardi																				Sick
9	Luhur Ahmad Difa' Pratama				√			√			√				√				√		**17**
10	Maulidatuzz ilva				√			√			√					√			√		17
11	Mohamat Rizki Septiawan			√				√			√					√			√		16
12	M. Ikbal Romadhani		√			√				√					√				√		12
13	Muhammad Bintang Syura Jaya Nurcahya		√					√			√				√				√		14
14	Muhammad Iqbal Albani																				Sick
15	Nikita																				

	Amelia Hafsah			√				√				√				√			√		15
16	Putri Fajri Hidayah																				
17	Siela Julita Cindi Mashitha			√				√				√				√			√		15
18	Wulan Zahrah Kuswana			√				√				√				√			√		16
	Total	47				45				42				48				46			230
	Average score	2,93				2,81				2,65				3				2,87			14,37
	Percentage									71,87											

Description

4 = very good **2 = enough**

3 = good **1= less**

Amount of students = 18

Score that achieved = 230

Total score = 320

Score of the liveliness in following lessons = 47

Score of participation in the group = 45

Score of motivation in exploring natural science subject = 42

Score of effort to complete the task with better = 48

Score of score of motivation to get a good score = 46

Average score of the liveliness in following lessons :

$$\frac{\sum \text{score obtained}}{\text{The number of student's}} = \frac{47}{16} = 2{,}93$$

Average score of participation in the group :

$$\frac{\sum \text{score obtained}}{\text{The number of student's}} = \frac{45}{16} = 2{,}81$$

Average score of motivation in exploring natural science subject :

$$\frac{\sum \text{score obtained}}{\text{The number of student's}} = \frac{42}{16} = 2{,}65$$

Average score of effort to complete the task with better :

$$\frac{\sum \text{score obtained}}{\text{The number of student's}} = \frac{48}{16} = 3$$

Average score of motivation to get a good score :

$$\frac{\sum \text{score obtained}}{\text{The number of student's}} = \frac{46}{16} = 2{,}87$$

Average score: $\frac{\sum \text{score obtained}}{\text{The number of student's}} = \frac{230}{16} = 14{,}37$

Percentage: $\frac{\sum \text{score obtained}}{\text{Total score}} \times 100\% = \frac{230}{320} \times 100\% = 71{,}87\%$

Appendix 4

STUDENTS MOTIVATION ASSESSMENT ON CYCLE II

School Name : MI Al-Fattah

Subject : Natural Science

Material : Cycle of living thing

Class/semester : IV/ II

No	Name	The liveliness in following lessons				Cooperation in the group				Motivation in exploring natural science subject				An effort to complete the task with better				Motivation to get a good score				Score total
		1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	
1	Achmad Syaifulah Yusuf				√				√			√				√					√	18
2	Aderisty Arista Nur Aisyah				√				√				√				√				√	20
3	Adeyanty Arista Nur Aisyah				√				√				√			√					√	19
4	Arman Maulana		√					√				√				√				√		14
5	Dimas																					

	Galang Pramono				√			√				√				√				√	17
6	Dina Yulianti				√			√				√				√				√	20
7	Ella Rosida Octaviana Putri				√			√				√				√				√	17
8	Fadhil Mawla Reza Rahardi				√			√				√				√				√	20
9	Luhur Ahmad Difa' Pratama				√			√				√				√			√		18
10	Maulidatuzzilva				√			√				√				√			√		18
11	Mohamat Rizki Septiawan			√				√				√				√				√	17
12	M. Ikbal Romadhani		√					√				√				√			√		14
13	Muhammad Bintang Syura Jaya Nurcahya			√				√				√				√			√		15
14	Muhammad Iqbal Albani			√				√				√				√			√		16

15	Nikita Amelia Hafsah				√			√				√				√					√	18
16	Putri Fajri Hidayah			√				√				√				√				√		15
17	Siela Julita Cindi Mashitha				√			√					√			√				√		17
18	Wulan Zahrah Kuswana			√					√				√			√				√		17
	Total	63				62				61				60				62				310
	Average score	3,5				3,44				3,38				3,33				3,44				17,22
	Percentage	86,11%																				

Description

4 = very good **2 = enough**

3 = good **1= less**

Amount of students = 18

Score that achieved = 310

Total score = 360

Score of score of the liveliness in following lessons = 63

Score of Participation in the group = 62

Score of motivation in exploring natural science subject = 61

Score of effort to complete the task with better = 60

Score of score of motivation to get a good score = 62

Average score of the liveliness in following lessons :

$$\frac{\sum \text{score obtained}}{\text{The number of student's}} = \frac{63}{18} = 2{,}93$$

Average score of Participation in the group :

$$\frac{\sum \text{score obtained}}{\text{The number of student's}} = \frac{62}{18} = 3{,}44$$

Average score of motivation in exploring natural science subject :

$$\frac{\sum \text{score obtained}}{\text{The number of student's}} = \frac{61}{18} = 3{,}38$$

Average score of effort to complete the task with better :

$$\frac{\sum \text{score obtained}}{\text{The number of student's}} = \frac{60}{18} = 3{,}33$$

Average score of motivation to get a good score :

$$\frac{\sum \text{score obtained}}{\text{The number of student's}} = \frac{62}{3{,}44} = 2{,}87$$

Average score: $\frac{\sum \text{score obtained}}{\text{The number of student's}} = \frac{310}{18} = 17{,}22$

Percentage: $\frac{\sum \text{score obtained}}{\text{Total score}} \times 100\% = \frac{310}{360} \times 100\% = 86{,}11\%$

Appendix 5

SCORING GUIDELINES FOR THE MOTIVATION

No.	Aspects of assessment	Scoring Indicator	Score
1	The liveliness in following lessons	Students active to conduct the task	4
		Students active to conduct the task, but not perfect	3
		Students conduct a little part of the task	2
		Students not active to conduct the task	1
2	Cooperation in group	All member of group conduct the task of group	4
		Three person conduct conduct the task of group	3
		Two person conduct conduct the task of group	2
		Only one person conduct the task of group	1
3	Motivation in exploring natural science subject	Three until five member of group ask the question	4
		Two member of group ask the question	3
		Only one person ask the question	2
		There is no question from the member of group	1
4	An effort to complete the task	Students conduct 5 question of group with better.	4
		Students conduct 4 question of group	3
		Students conduct 3 question of group	2

	with better	Students conduct < 2 question of group	**1**
5	Motivation to get a good score	Score of evaluation > 85	**4**
		Score of evaluation71-84	**3**
		Score of evaluation 60 -70	**2**
		Score of evaluation < 59	**1**

Appendix 6

RECAPITUCATION SCORE OF NATURAL SCIENCE 4th GRADE MI AL-FATTAH MALANG

No.	Name	Score		
		Pre Test	Cycle I	Cycle II
1	Achmad Syaifulah Yusuf	60	100	100
2	Aderisty Arista Nur Aisyah	50	100	90
3	Adeyanty Arista Nur Aisyah	60	70	92
4	Arman Maulana	30	40	64
5	Dimas Galang Pramono	50	60	79
6	Dina Yulianti	60	90	99
7	Ella Rosida Octaviana Putri	30	40	80
8	Fadhil Mawla Reza Rahardi	Sick	Sick	92
9	Luhur Ahmad Difa' Pratama	60	90	90
10	Maulidatuzzilvia	40	80	100
11	Mohamat Rizki Septiawan	50	70	85
12	M. Ikbal Romadhani	20	10	62
13	Muhammad Bintang Syura Jaya Nurcahya	50	70	70
14	Muhammad Iqbal Albani	Sick	Sick	87
15	Nikita Amelia Hafsah	70	80	90
16	Putri Fajri Hidayah	70	80	78
17	Siela Julita Cindi Mashitha	50	70	88
18	Wulan Zahrah Kuswana	50	80	81
Average Score		**50**	**70,62**	**84,52**

Appendix 7

RECAPITUCATION SCORE OF THE TASK ON NATURAL SCIENCE 4th GRADE MI AL-FATTAH MALANG

No.	Name	Score		
		1st task	2nd task	Experiment
1	Achmad Syaifulah Yusuf	100	100	100
2	Aderisty Arista Nur Aisyah	100	100	100
3	Adeyanty Arista Nur Aisyah	85	70	100
4	Arman Maulana	63	80	87
5	Dimas Galang Pramono	80	80	100
6	Dina Yulianti	95	100	100
7	Ella Rosida Octaviana Putri	70	70	100
8	Fadhil Mawla Reza Rahardi	Sick	80	Sick
9	Luhur Ahmad Difa' Pratama	95	90	100
10	Maulidatuzzilvia	90	90	100
11	Mohamat Rizki Septiawan	85	90	93
12	M. Ikbal Romadhani	51	90	93
13	Muhammad Bintang Syura Jaya Nurcahya	80	100	70
14	Muhammad Iqbal Albani	Sick	100	Sick
15	Nikita Amelia Hafsah	87	90	93
16	Putri Fajri Hidayah	87	90	93
17	Siela Julita Cindi Mashitha	85	80	100
18	Wulan Zahrah Kuswana	90	90	100
Average score		**83,93**	**88,33**	**95,56**

Appendix 8

THE RESULT OF STUDENTS RESPONSE FROM QUESTIONAIRE

Number of question	Answer	Frequency	Percent
1.	Strongly agree	4	22,2%
	Agree	9	50%
	Doubtful	5	27,8%
	Disagree	-	0%
	Strongly disagree	-	0%
Total			**100%**
2	Strongly agree	12	66,7%
	Agree	5	27,8%
	Doubtful	-	0%
	Disagree	-	0%
	Strongly disagree	1	5,5%
Total			**100%**
3	Strongly agree	6	33,3%
	Agree	5	27,9%
	Doubtful	6	33,3%
	Disagree	1	5,5%
	Strongly disagree	-	0%

Total			**100%**
4.	Strongly agree	6	33,3%
	Agree	6	33,3%
	Doubtful	5	27,9%
	Disagree	1	5,5%
	Strongly disagree	-	0%
Total			**100%**
5.	Strongly agree	6	33,3%
	Agree	7	38,9%
	Doubtful	4	22,3%
	Disagree	1	5,5%
	Strongly disagree	-	0%
Total			**100%**
6.	Strongly agree	9	50%
	Agree	1	5,5%
	Doubtful	4	22,3%
	Disagree	3	16,7%
	Strongly disagree	1	5,5%
Total			**100%**
7.	Strongly agree	10	55,6%
	Agree	7	38,9%
	Doubtful	1	5,5%

	Disagree	-	0%
	Strongly disagree	-	0%
Total			**100%**
8.	Strongly agree	-	0%
	Agree	8	44,5%
	Doubtful	6	33,3%
	Disagree	2	11,1%
	Strongly disagree	2	11,1%
Total			**100%**
9.	Strongly agree	8	44,6%
	Agree	6	33,3%
	Doubtful	2	11,1%
	Disagree	1	5,5%
	Strongly disagree	1	5,5%
Total			**100%**
10.	Strongly agree	4	22,3%
	Agree	3	16,7%
	Doubtful	7	38,8%
	Disagree	1	5,5%
	Strongly disagree	3	16,7%
Total			**100%**
	Strongly agree	5	27,9%

11.	Agree	7	38,8%
	Doubtful	3	16,7%
	Disagree	1	5,5%
	Strongly disagree	2	11,1%
Total			**100%**
12.	Strongly agree	4	22,3%
	Agree	3	16,7%
	Doubtful	5	27,7%
	Disagree	4	22,2%
	Strongly disagree	2	11,1%
Total			**100%**
13.	Strongly agree	7	38,8%
	Agree	5	27,8%
	Doubtful	3	16,7%
	Disagree	3	16,7%
	Strongly disagree	-	-
Total			**100%**
14.	Strongly agree	9	50%
	Agree	6	33,4%
	Doubtful	1	5,5%
	Disagree	2	11,1%
	Strongly disagree	-	0%

Total			**100%**
15.	Strongly agree	10	55,5%
	Agree	4	22,3%
	Doubtful	2	11,1%
	Disagree	2	11,1%
	Strongly disagree	-	0%
Total			**100%**
16.	Strongly agree	6	33,3%
	Agree	5	27,8%
	Doubtful	4	22,3%
	Disagree	2	11,1%
	Strongly disagree	1	5,5%
Total			**100%**
17.	Strongly agree	5	27,8%
	Agree	4	22,3%
	Doubtful	5	27,8%
	Disagree	3	16,6%
	Strongly disagree	1	5,5%
Total			**100%**
18.	Strongly agree	8	44,6%
	Agree	3	16,6%
	Doubtful	5	27,8%

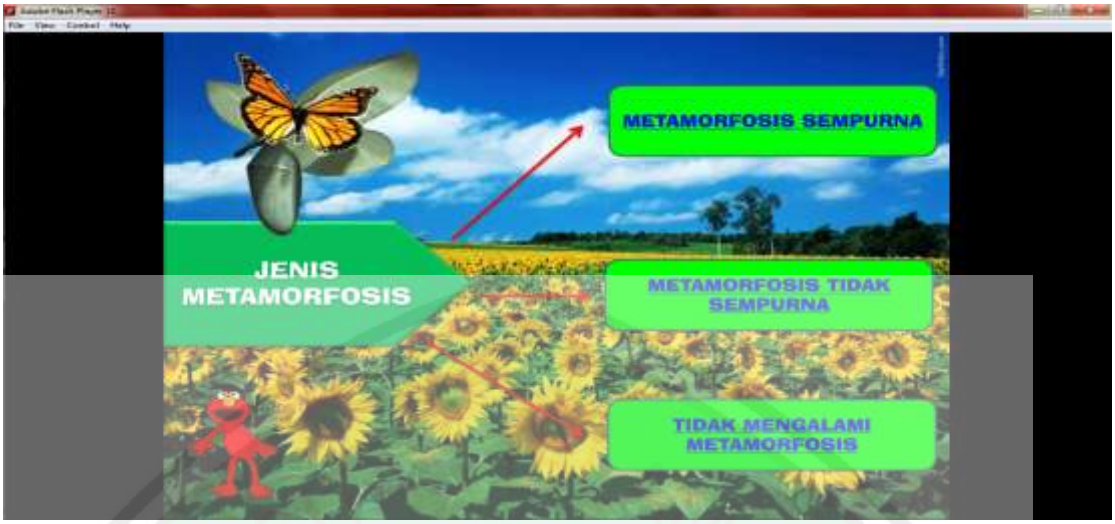
	Disagree	1	5,5%
	Strongly disagree	1	5,5%
Total			**100%**
19.	Strongly agree	11	61,3%
	Agree	3	16,6%
	Doubtful	1	5,5%
	Disagree	2	11,1%
	Strongly disagree	1	5,5%
Total			**100%**
20.	Strongly agree	12	66,6%
	Agree	4	22,3%
	Doubtful	2	11,1%
	Disagree	-	0%
	Strongly disagree	-	0%
Total			**100%**

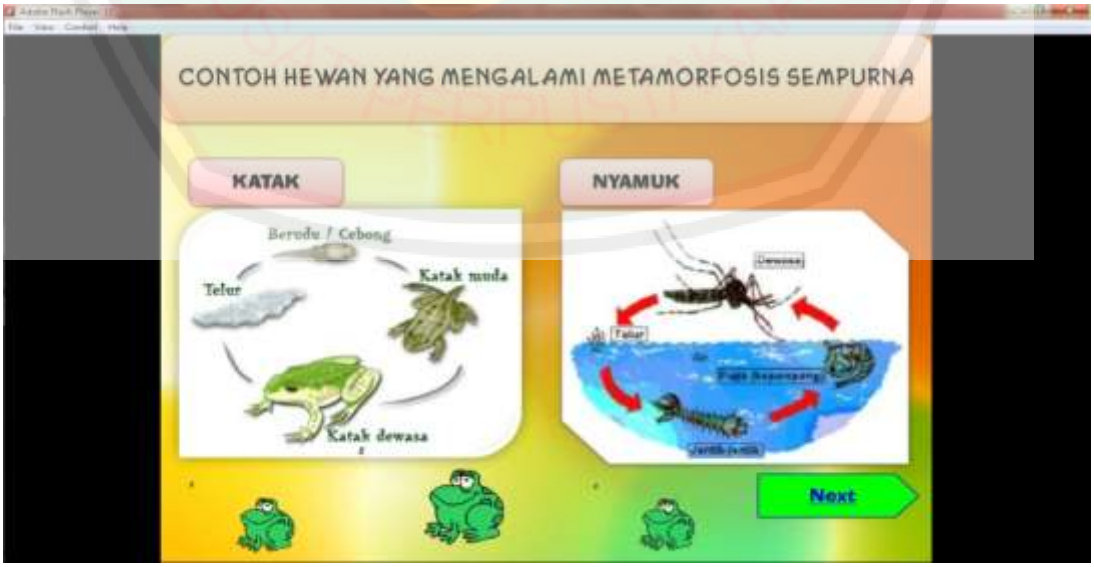
Appendix 9

INTERACTIVE MULTIMEDIA

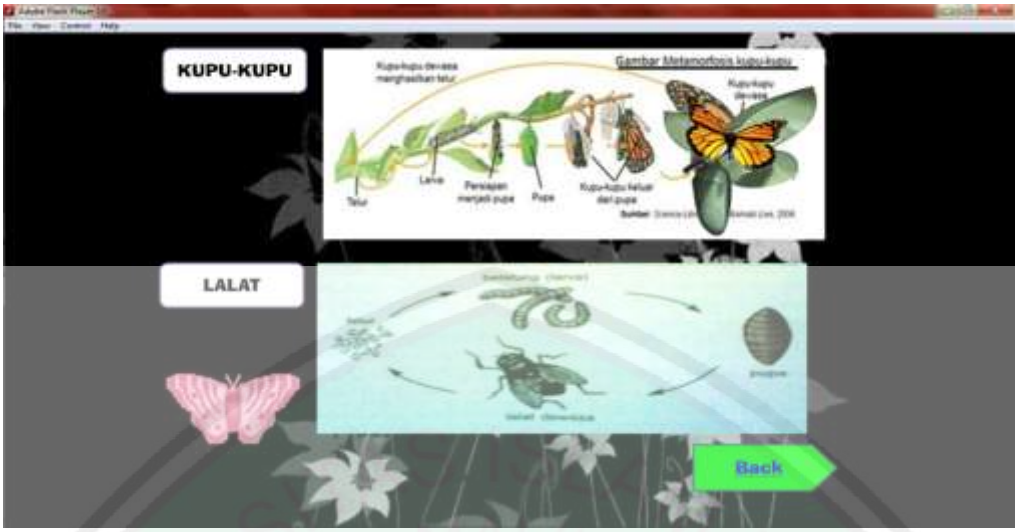
MAIN MENU: MATERI, VEDEO, QUIS, PROFIL

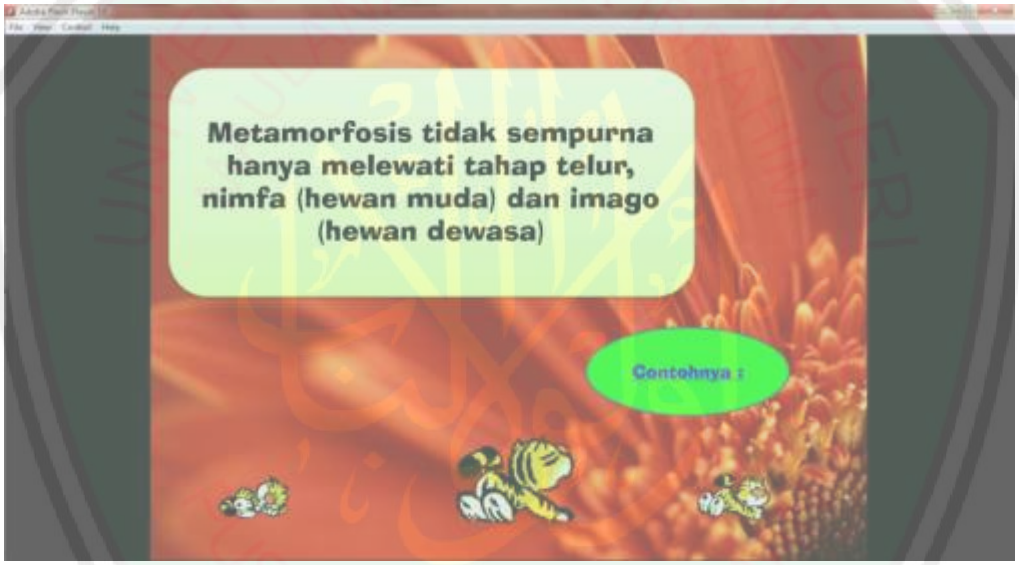
The material on macromedia flash player

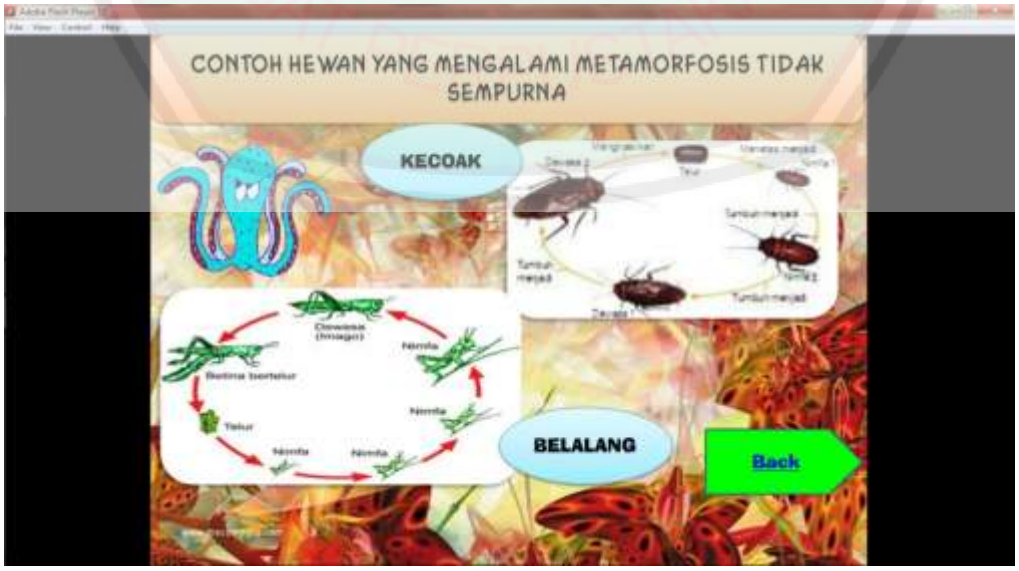




The material on macromedia flash player







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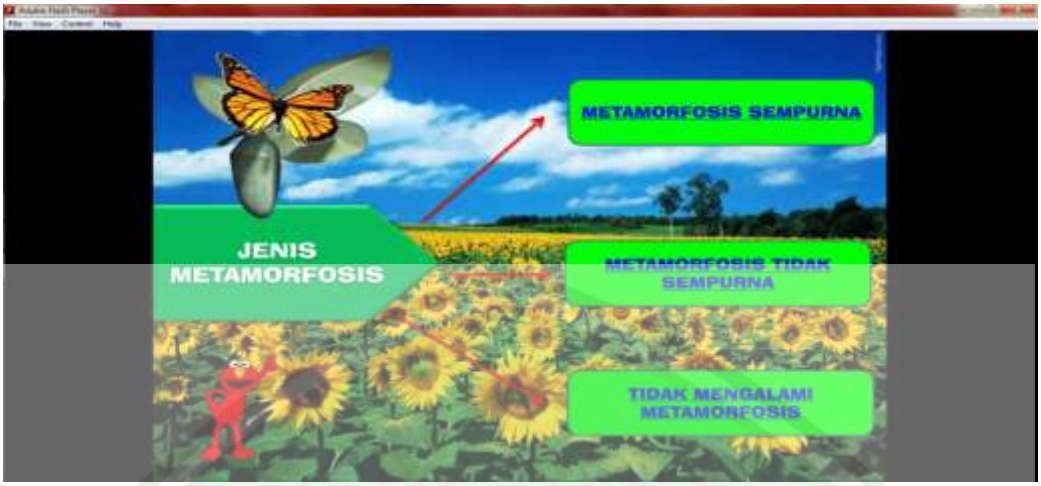
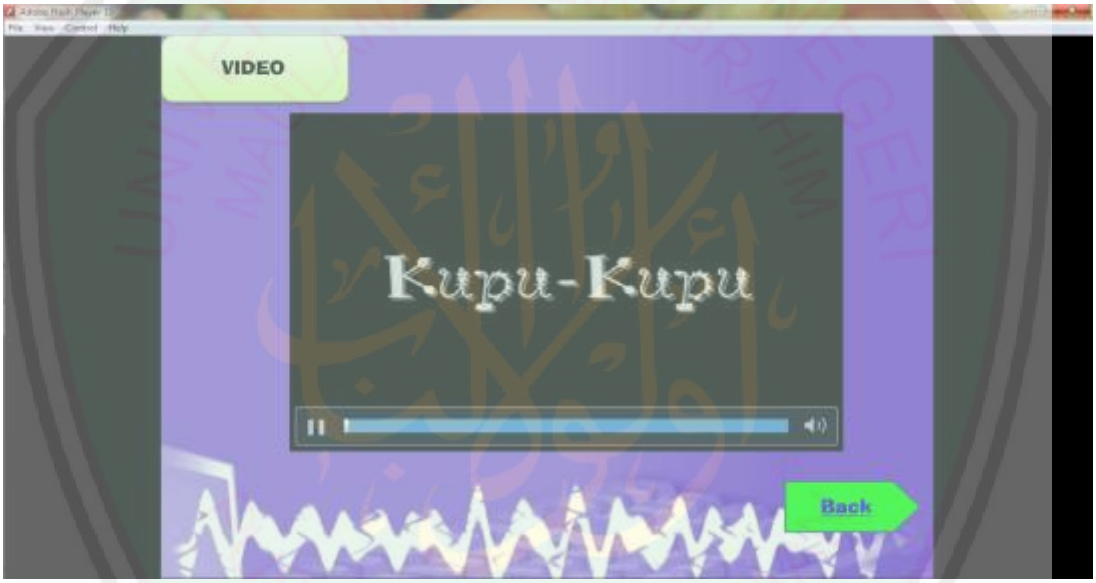
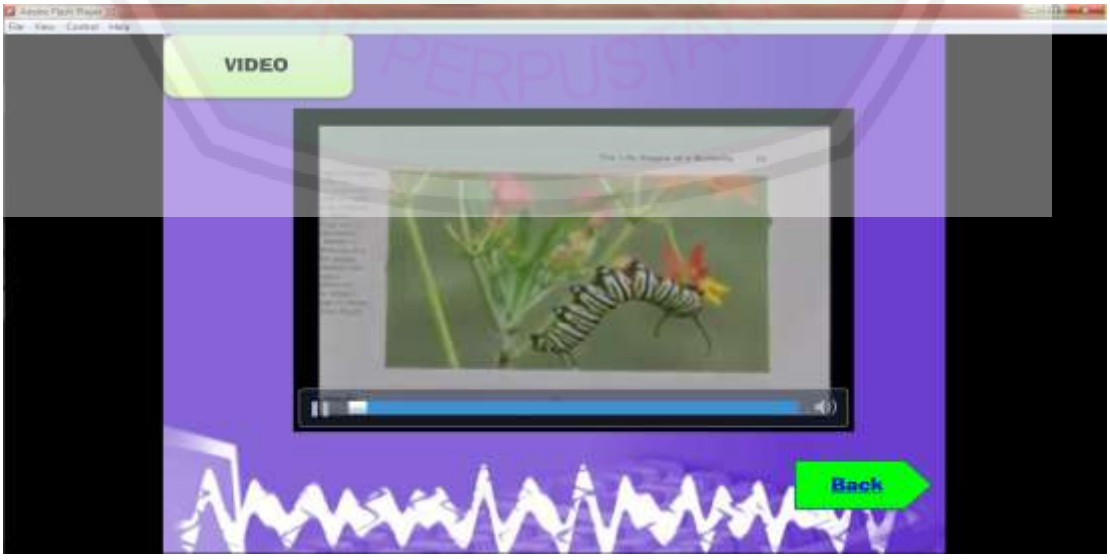


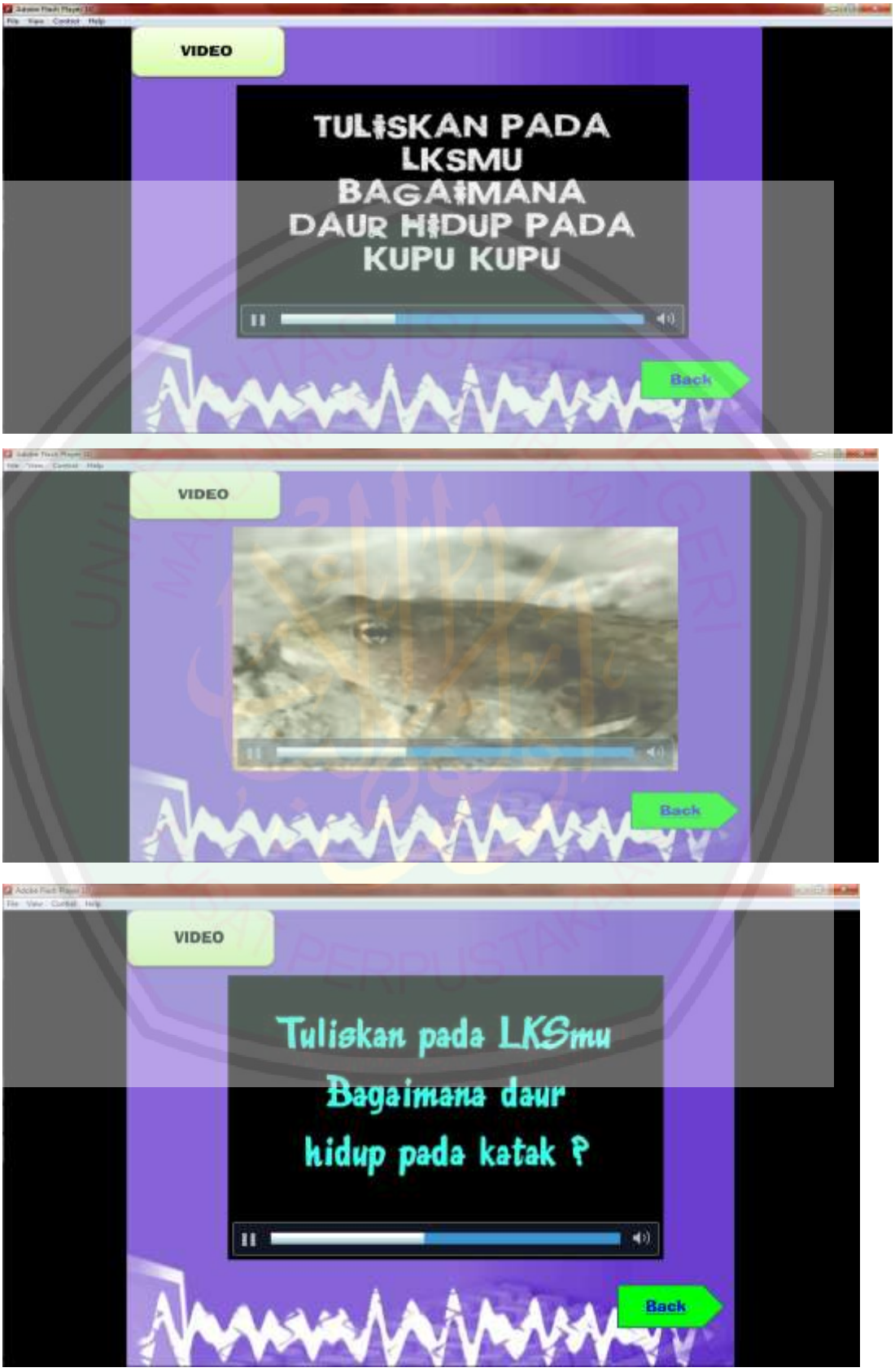
The material on macromedia flash player

Click to the video

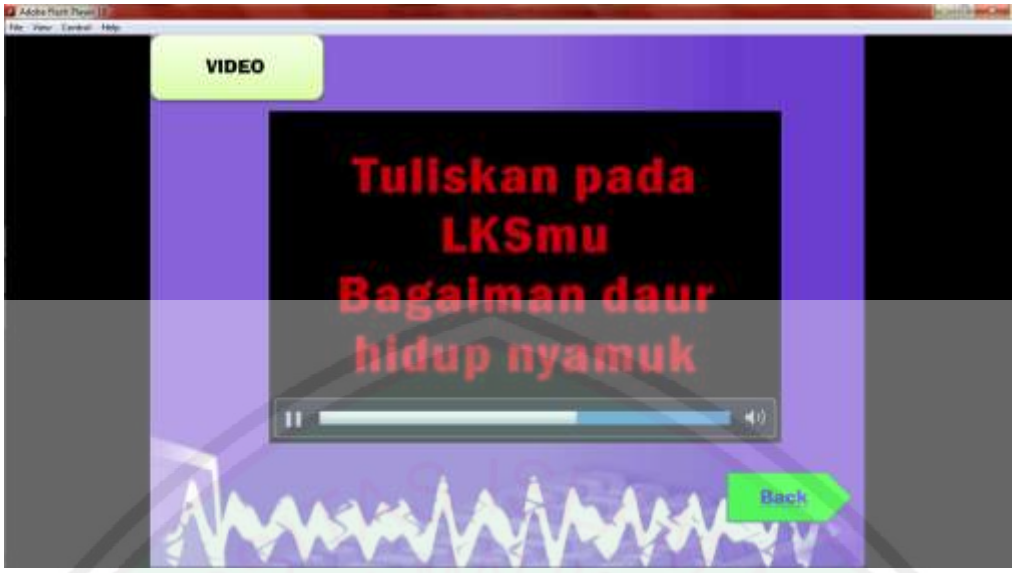




Video about life cycle of living thing



Students' task



Click to the quis

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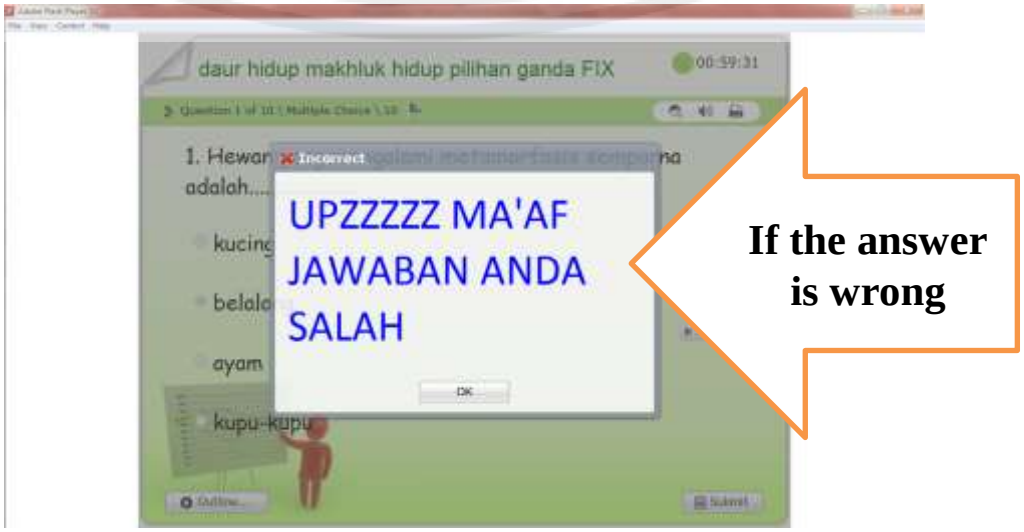
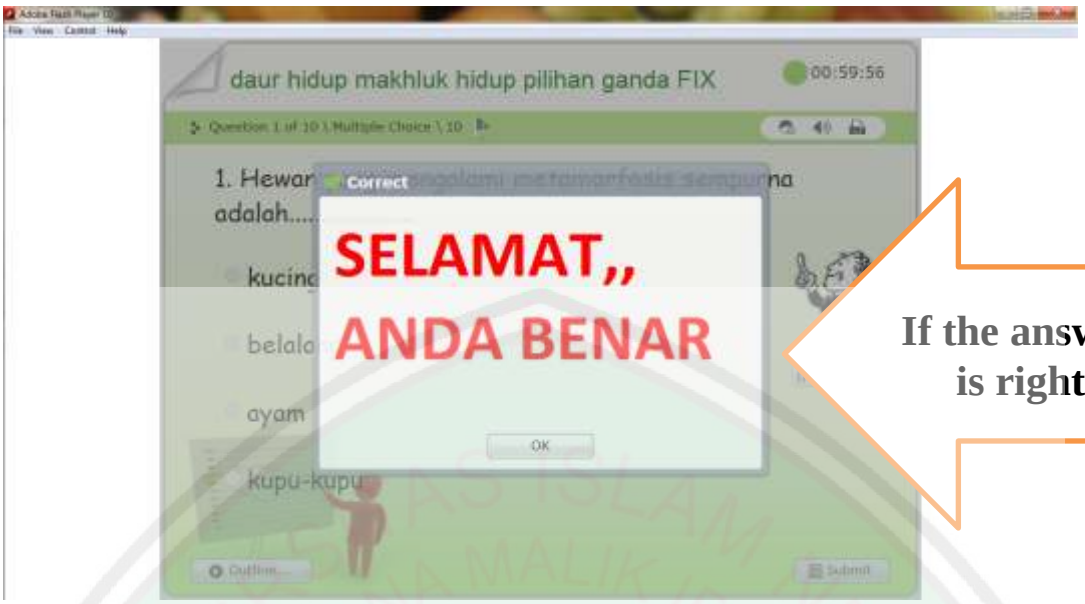
Profil of author

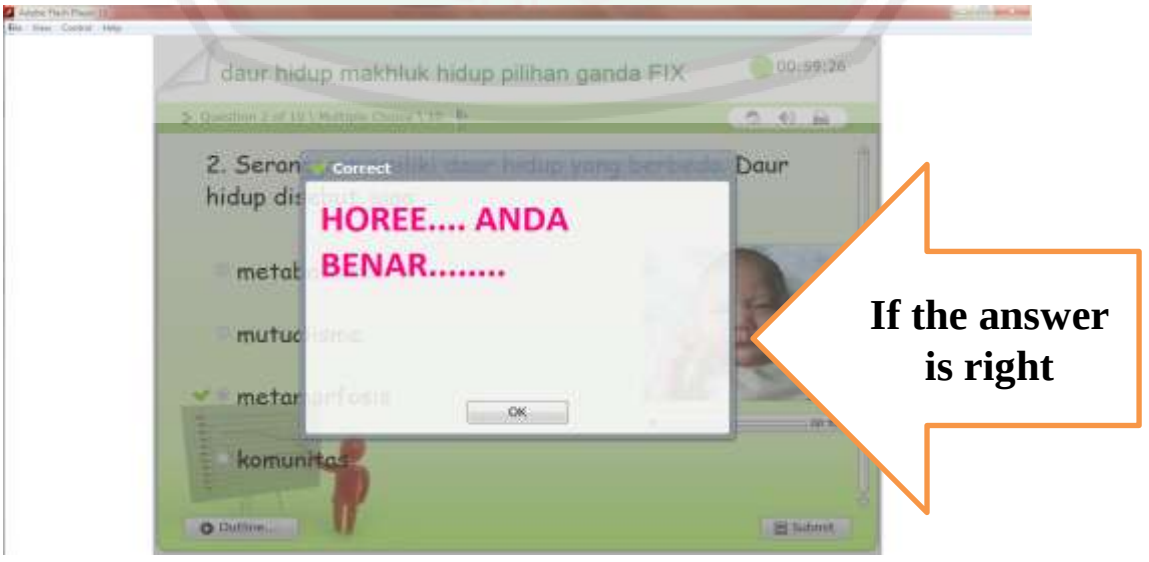
Appendix 10

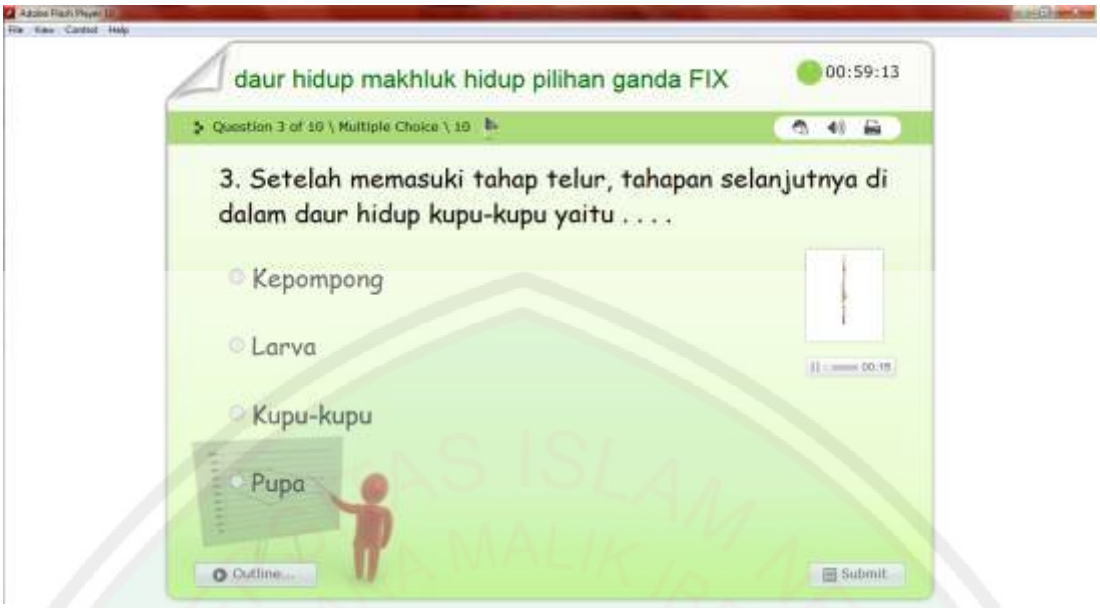
WONDERSHARE QUIZ CREATOR
(Multiple Choice)

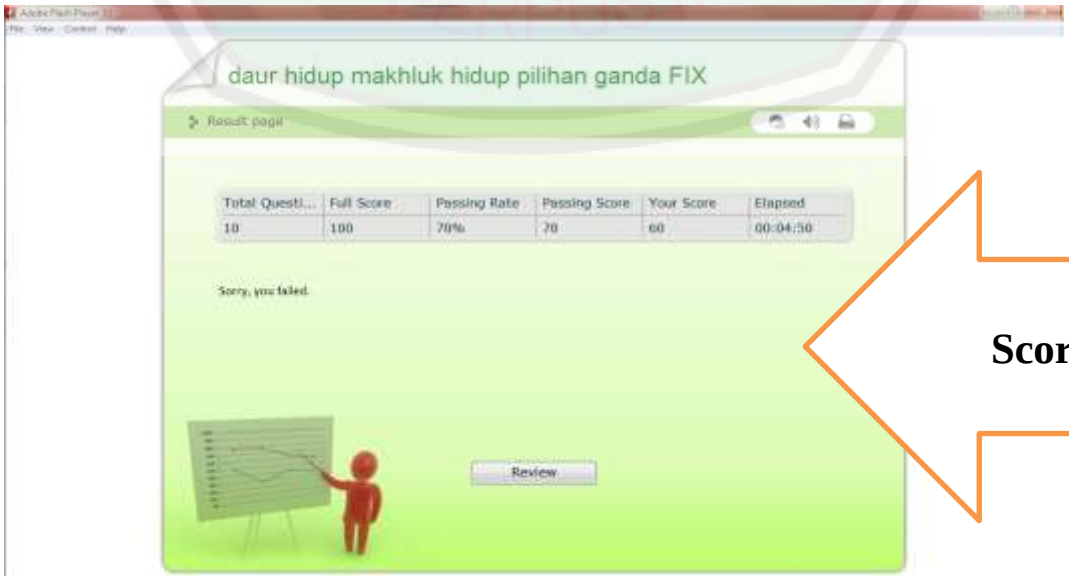


If the answer is wrong









Score

Appendix 11

WONDERSHARE QUIZ CREATOR
(TRUE, FALSE QUESTION)

Appendix 12

RENCANA PELAKSANAAN PEMBELAJARAN

(RPP)

Sekolah	**:**	**MI AL-FATTAH MALANG**
Mata Pelajaran	**:**	**Ilmu Pengetahuan Alam (IPA)**
Kelas/Semester	**:**	**IV/1**
Pertemuan ke	**:**	**I**
Materi Pokok	**:**	**Daur Hidup Hewan**
waktu	**:**	**2 x 35 menit (1X pertemuan)**
Hari/tanggal	**:**	**senin/22 Oktober 2012**

A. Standar Kompetensi :

Memahami daur hidup beragam jenis makhluk hidup

B. Kompetensi Dasar

Mendeskripsikan daur hidup beberapa hewan di lingkungan sekitar, misalnya kecoa, nyamuk, kupu-kupu, kucing.

C. Indikator

1. Mendeskripsikan urutan daur hidup beberapa hewan secara sederhana.
2. Mendeskripsikan bahwa tidak semua hewan berubah bentuk dengan cara yang sama.
3. Menjelaskan daur hidup hewan :
    a) Daur Hidup Kucing
    b) Daur Hidup Kecoa
    c) Daur hidup Kupu-Kupu
    d) Daur Hidup Nyamuk
    e) Daur Hidup Lalat
    f) Daur Hidup Katak

D. Tujuan Pembelajaran :

1. Siswa mampu mendeskripsikan urutan daur hidup beberapa hewan secara sederhana.
2. Siswa mampu mendeskripsikan bahwa tidak semua hewan berubah bentuk dengan cara yang sama.
3. Siswa mampu menjelaskan daur hidup hewan :
   a) Daur Hidup Kucing
   b) Daur Hidup Kecoa
   c) Daur hidup Kupu-Kupu
   d) Daur Hidup Nyamuk
   e) Daur Hidup Lalat
   f) Daur Hidup Katak

E. **Karakter siswa yang diharapkan :** ***Kreatif, Mandiri, Rasa ingin tahu, Peduli lingkungan***

F. Materi Essensial

1. Daur hidup makhluk hidup tanpa metamorphosis. Misalnya ayam dan kucing
2. Daur hidup makhluk hidup dengan metamorphosis tidak sempurna. Misalnya : kecoa
3. Daur hidup makhluk hidup dengan metamorphosis sempurna. Misalnya : nyamuk, kupu-kupu.

Metamorfosis adalah peubahan bentuk dan struktur yang terjadi pada hewan mulai dari embrio sampai dewasa. Metamorfosis dibedakan menjadi metamorfosis sempurna dan metamorfosis tidak sempurna.

Metamorfosis sempurna adalah metamorfosis yang melewati tahap mulai telur, larva, pupa hingga dewasa. Contoh hewan yang mengalami metamorfosis sempurna adalah

1. Kupu-kupu
   Tahapan metamorfosis kupu-kupu adalah Telur → ulat → kepompong → kupu-kupu

2. Katak

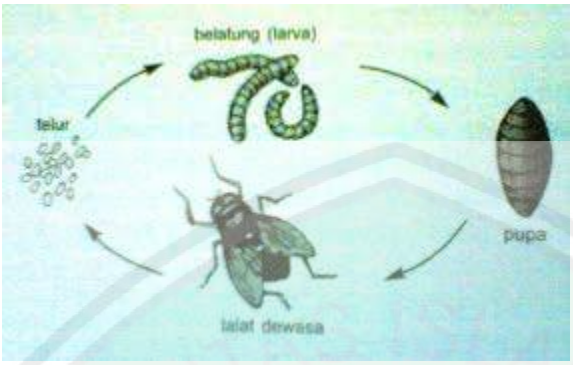
Tahapan metamorfosis katak adalah Telur → kecebong → katak muda/katak berekor → katak dewasa

3. Nyamuk

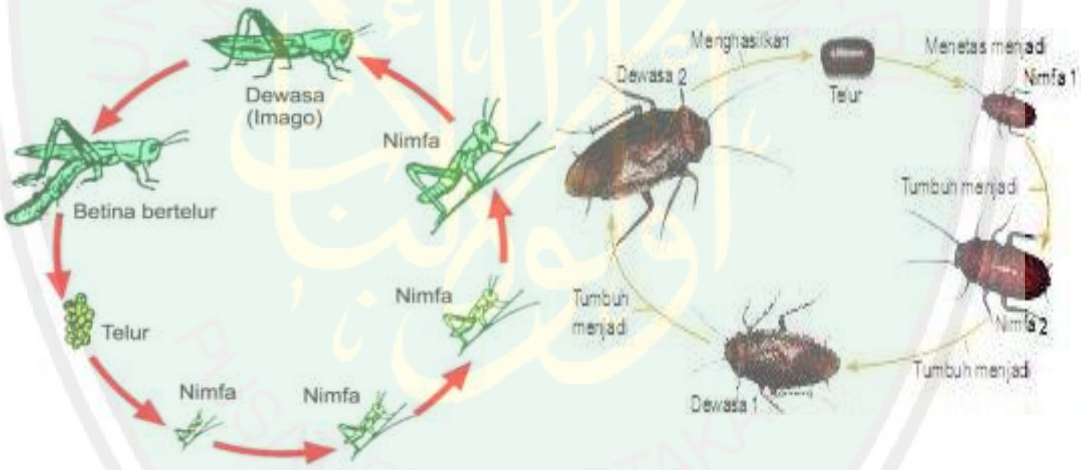
Tahapan metamorfosis nyamuk adalah Telur → jentik-jentik → pupa → Nyamuk

4. Lalat

Tahapan metamorfosis lalat adalah telur → belatung (larva) →pupa → lalat dewasa



Metamorfosis tidak sempurna hanya melewati tahap telur, nimfa (hewan muda) dan imago (hewan dewasa) hewn yang mengalami metamorfosis tidak sempurna adalah belalang, kecoa , capung dan jangkrik



Contoh hewan yang tidak mengalami metamorfosis adalah kucing dan ayam

G. Metode Pembelajaran

1. VAK (Visual, auditory, kinesthetic) model

2. Tanya Jawab
3. Ceramah
4. Group discussion

H. Media Belajar

1. Buku IPA 4 Yudistira, BSE, Buku IPA 4 Erlangga
2. Macromedia flash player
3. Video.
4. Gambar tentang daur hidup makhluk hidup
5. Wondershare quis creator
6. Kepompong, kupu-kupu dan lalat

I. Rincian Kegiatan Pembelajaran Siswa

Pertemuan ke 1	
1. Pendahuluan Apersepsi dan Motivasi : • Guru mengucap salam dan mengawali kegiatan dengan membaca Basmallah (nilai karakter yang ditanamkan santun, peduli, religi) • Guru menanyakan kabar siswa dan mengecek kehadiran siswa (nilai yang ditanamkan kedisiplinan, peduli, empati) • Menyampaikan Indikator pencapaian kompetensi dan kompetensi yang diharapkan • Guru menarik perhatian siswa dengan membawa sesuatu yang baru, yakni dengan memakai bros besar yang berbentuk kupu-kupu untuk menimbulkan konflik kognitif (brain stroming) di dalam diri siswa sehingga murid tertarik untuk bertanya dan memunculkan motivasi siswa. • Guru bertanya ke siswa, "bros ini berbentuk binatang apa? (kemungkinan jawaban siswa kupu-kupu). • Guru bertanya kepada siswa "darimana asal kupu-kupu? • Guru mengaitkan kupu-kupu dengan tema yang akan di pelajari yakni daur hidup makhluk hidup.	(5 menit)
2. Kegiatan Inti 📖 ***Eksplorasi*** Dalam kegiatan eksplorasi : • Guru menuliskan Rumusan Masalah, pada hari ini kita akan mempelajari tentang "**Bagaimana Daur Hidup Hewan?"**	(60 menit)

- Guru memutarkan video tentang daur hidup makhluk hidup, dalam video tersebut berisi tugas yang harus di kerjakan siswa.
- Guru membagi siswa menjadi 5 kelompok.
- Guru memberi potongan-potongan kertas yang berisi daur hidup makhluk hidup kepada siswa, kemudian siswa di suruh menyusun potongan daur hidup tersebut dan menempelkannya ke kertas yang sudah disediakan oleh guru dan tugas itu dilakukan secara berkelompok.(nilai yang ditanamkan kerjasama)

📖 ***Elaborasi***

Dalam kegiatan elaborasi :

- Siswa lain disuruh untuk memberikan komentar tentang gambar daur hidup tadi sehingga terjadi diskusi antar siswa. (nilai yang ditanamkan keberanian)
- Guru menanggapi hasil dari diskusi siswa
- Hasil kerja siswa ini didiskusikan dalam kelas, Guru mengajukan pertanyaan , misalnya : apakah urutan potongan kertas tersebut sudah benar?
  - Urutan potongan kertas yang benar adalah telur → ulat → kepompong → kupu-kupu
- Guru menjelaskan daur hidup hewan dengan menggunakan macromedia flash player.
- Guru mendiskusikan isi dari pembelajaran dengan media macromedia flash player dengan siswa.
- Siswa memahami konsep tentang hewan yang tidak mengalami metamorphosis, hewan yang mengalami metamorphosis sempurna dan hewan yang mengalami metamorphosis tidak sempurna.
- Guru mengajak siswa untuk menyayikan lagu yang berjudul metamorfosis kupu-kupu dan metamorfosis katak. (nilai yang ditanamkan semangat)

Lagu metamorfosis kupu-kupu :

Telur-telur, ulat-ulat
Kepompong, kupu-kupu.
Metamorfosis…… metamorfosis…….

Lagu metamorfosis katak :

Kecebong mandi di kolam
Kumul-kumul berenang

(5 menit)

Kaki depan tuk, kaki belakang tuk *Ekor hilang jadilah kodok* • Siswa memahami peristiwa perubahan yang dialami makhluk hidup selama hidupnya. • Guru menyuruh siswa secara acak untuk menjelaskan hewan yang tidak mengalami metamorphosis ,mengalami metamorphosis sempurna , metamorphosis tidak sempurna didepan kelas. • Guru menanggapi penjelasan siswa 📖 ***Konfirmasi*** Dalam kegiatan konfirmasi, guru: ☞ Guru menunjukkan tayangan LCD menggunakan aplikasi wondershare quis creator yang berisi soal-soal yang harus di jawab siswa. ☞ Guru bertanya jawab tentang hal-hal yang belum diketahui siswa ☞ Memberikan umpan balik positif dan penguatan dalam bentuk lisan, tulisan, isyarat, maupun hadiah terhadap keberhasilan peserta didik. ☞ Memfasilitasi peserta didik melakukan refleksi untuk memperoleh pengalaman belajar yang telah dilakukan, ☞ Guru bersama siswa bertanya jawab meluruskan kesalahan pemahaman, memberikan penguatan dan penyimpulan **3.** Kegiatan Penutup Dalam kegiatan penutup, guru: ☞Mengulang penjelasan peristiwa perubahan yang dialami makhluk hidup selama hidupnya sebagai daur hidup ☞Merangkum atau meringkas inti pokok pelajaran ☞Memuji hasil yang dicapai oleh peserta didik dengan memberikan pujian maupun hadiah. ☞Mendorong untuk lebih semangat belajar untuk mencapai kompetensi yang lebih tinggi dengan menunjukkan pentingnya materi yang dipelajari. ☞ Meyakinkan akan potensi dan kemampuan peserta didik terhadap keberhasilan pencapaian kompetensi belajar untuk menumbuhkan rasa percaya diri. ☞ Memberi petunjuk untuk pelajaran/ topik berikutnya tentang lanjutan materi daur hidup. ☞ Mengadakan evaluasi pembelajaran.	
4. Pekerjaan Rumah ☞ Mengamati hewan yang ada di lingkungan rumah untuk mengisi kolom yang sudah disediakan guru.	

☞ Meminta siswa untuk membawa stoples kecil atau gelas bening, kain kasa atau kertas koran yang dilubangi, karet gelang dan 1 butir kentang atau apel untuk melakukan percobaan di pertemuan selanjutnya. (nilai yang ditanamkan cinta ilmu, mandiri, tanggung jawab)	

J. Penilaian:

Nilai Budaya Dan Karakter Bangsa	Indikator Pencapaian Kompetensi	Teknik Penilaian	Bentuk Instrumen	Instrumen/ Soal
○ ***Kreatif :*** Berpikir dan melakukan sesuatu untuk menghasilkan cara atau hasil baru dari sesuatu yang telah dimiliki ○ ***Mandiri :*** Sikap dan perilaku yang tidak mudah tergantung pada orang lain dalam menyelesaikan tugas-tugas ○ ***Rasa ingin tahu :*** Sikap dan tindakan yang selalu berupaya untuk mengetahui lebih mendalam dan meluas dari sesuatu yang dipelajarinya, dilihat, dan didengar ○ ***Peduli lingkungan :*** Sikap dan tindakan yang selalu berupaya mencegah kerusakan pada lingkungan alam di sekitarnya, dan mengembangkan upaya-upaya untuk memperbaiki kerusakan alam yang sudah terjadi.	○ Mendeskripsikan urutan daur hidup beberapa hewan secara sederhana. ○ Menyimpulkan berdasarkan pengamatan bahwa tidak semua hewan berubah bentuk dengan cara yang sama. ○ Menyimpulkan bahwa berubahnya bentuk pada hewan menunjukkan adanya pertumbuhan.	Tugas Individu dan Kelompok	Laporan dan unjuk kerja Uraian Objektif	○ Jelaskanlah urutan daur hidup beberapa hewan secara sederhana. ○ Simpulkan berdasarkan pengamatan bahwa tidak semua hewan berubah bentuk dengan cara yang sama. ○ Simpulkan bahwa berubahnya bentuk pada hewan menunjukkan adanya pertumbuhan.

FORMAT KRITERIA PENILAIAN

📖 ***PRODUK (HASIL DISKUSI)***

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

📖 ***PERFORMANSI***

No.	Aspek	Kriteria	Skor
1.	Pengetahuan	* aktif berpartisipasi	4
		* kadang-kadang berpartisipasi	2
		* tidak berpartisipasi	1
2.	Praktek	* Aktif melakukan kegiatan	4
		* Kadang-kadang	2
		* Tidak aktif	1
3.	Sikap	* mampu bekerjasama dengan teman * kurang mampu bekerjasama	4
		* tidak terlibat dalam proses penyelesaian masalah	2 1

📖 ***LEMBAR PENILAIAN***

No	Nama Siswa	Performance			Produk	Jumlah Skor	Nilai
		Pengetahuan	Praktek	Sikap			
1.	Achmad Syaifulah Yusuf						
2.	Aderisty Arista Nur Aisyah						
3.	Adeyanty Arista Nur Aisyah						
4.	Arman Maulana						
5.	Dimas Galang Pramono						
6.	Dina Yulianti						
7.	Ella Rosida Octaviana Putri						
8.	Fadhil Mawla Reza Rahardi						
9.	Luhur Ahmad Difa' Pratama						

10.	Maulidatuzzilvia						
11.	Mohamat Rizki Septiawan						
12.	M. Ikbal Romadhani						
13.	Muhammad Bintang Syura Jaya Nurcahya						
14.	Muhammad Iqbal Albani						
15.	Nikita Amelia Hafsah						
16.	Putri Fajri Hidayah						
17.	Siela Julita Cindi Mashitha						
18.	Wulan Zahrah Kuswana						

📖 ***LEMBAR PENILAIAN KELOMPOK***

No	Nama Kelompok	Performan			Produk	Jumlah Skor	Nilai
		Partisipasi	Keaktifan	Kerjasama			
	Kelompok 1						
1.	Achmad Syaifulah Yusuf						
2.	Dina Yulianti						
3.	Muhammad Iqbal Albani						
4.	Siela Julita Cindi Mashitha						
	Kelompok 2						
1.	Aderisty Arista						
2.	Nur Aisyah						
3.	Arman Maulana						
	Ella Rosida						
	Octaviana Putri						
	Kelompok 3						
1.	M. Ikbal Romadhani						
2.	Nikita Amelia Hafsah						
3.	Putri Fajri						

	Hidayah **Kelompok 4** Wulan Zahrah						
1. 2. 3. 4.	Kuswana Muhammad Bintang Syura Jaya Nurcahya Dimas Galang Pramono Fadhil Mawla Reza Rahardi						
	Kelompok 5						
1. 2. 3. 4.	Adeyanty Arista Nur Aisyah Luhur Ahmad Difa' Pratama Maulidatuzzilvia Mohamat Rizki Septiawan						

CATATAN :

- ***Nilai = (Jumlah skor : jumlah skor maksimal) X 10.***
- ***Nilai =*** $\frac{11}{16}$ ***X 10 = 9,16***
- ***Untuk siswa yang tidak memenuhi syarat penilaian KKM maka diadakan Remedial.***

....., ...20 ...

Mengetahui
Kepala Sekolah

.....
NIP/NIK :

Guru Mapel IPA

.....
NIP/NIK :

Appendix 13

RENCANA PELAKSANAAN PEMBELAJARAN
(RPP)

Sekolah	**:**	**MI AL-FATTAH MALANG**
Mata Pelajaran	**:**	**Ilmu Pengetahuan Alam (IPA)**
Kelas/Semester	**:**	**IV/1**
Pertemuan ke	**:**	**II**
Materi Pokok	**:**	**Daur Hidup Hewan**
waktu	**:**	**2 x 35 menit (1X pertemuan)**
Hari/tanggal	**:**	**Kamis/ 25 oktober 2012**

A. Standar Kompetensi :

Memahami daur hidup beragam jenis makhluk hidup

B. Kompetensi Dasar

Mendeskripsikan daur hidup beberapa hewan di lingkungan sekitar, misalnya kecoa, nyamuk, kupu-kupu, kucing.

C. Indikator

4. Mendeskripsikan urutan daur hidup beberapa hewan secara sederhana.
5. Mendeskripsikan bahwa tidak semua hewan berubah bentuk dengan cara yang sama.
6. Menjelaskan daur hidup hewan :
    g) Daur Hidup Kucing
    h) Daur Hidup Kecoa
    i) Daur hidup Kupu-Kupu
    j) Daur Hidup Nyamuk
    k) Daur Hidup Lalat
    l) Daur Hidup Katak

D. Tujuan Pembelajaran :

4. Siswa mampu mendeskripsikan urutan daur hidup beberapa hewan secara sederhana.
5. Siswa mampu mendeskripsikan bahwa tidak semua hewan berubah bentuk dengan cara yang sama.
6. Siswa mampu menjelaskan daur hidup hewan :
   g) Daur Hidup Kucing
   h) Daur Hidup Kecoa
   i) Daur hidup Kupu-Kupu
   j) Daur Hidup Nyamuk
   k) Daur Hidup Lalat
   l) Daur Hidup Katak

E. **Karakter siswa yang diharapkan :**
   - ***Kreatif, Mandiri, Rasa ingin tahu, Peduli lingkungan***

F. Materi Essensial

LEMBAR PENGAMATAN

Daur Hidup Serangga

Tujuan

Kamu dapat mengetahui salah satu daur hidup serangga.

Alat dan Bahan

1. Stoples kecil atau gelas
2. Kain kasa atau kertas koran yang dilubangi
3. Karet gelang
4. 5 ulat untuk pakan burung
5. Kentang atau apel

Langkah kerja

Lakukan secara berkelompok.

1. Siapkan stoples kecil atau gelas dan kain kasa.
2. Potonglah kain kasa menjadi 2 potong. Satu potong untuk alas stoples dan satu potong lagi untuk tutup stoples.

Hati-hati pada saat menggunakan pisau dan gunting karena

3. Potonglah kentang atau apel menjadi 4.
4. Masukkan seperempat bagian kentang atau apel yang telah dipotong kedalam stoples yang telah dialasi kain kasa.
5. Masukkan 5 ekor ulat untuk pakan burung ke dalam gelas yang sudah diisi kentang atau apel.
6. Tutup stoples atau gelas dengan kain kasa. Kemudian, ikat dengan karet gelang.
7. Amati selama beberapa hari hingga ulat itu berubah menjadi kumbang atau serangga.
8. Untuk menuliskan hasil pengamatanmu, buatlah tabel sebagai berikut.

Tabel Pengamatan Perubahan Bentuk Ulat.

Hari Ke…	Bentuk Perubahan pada Ulat
1	
2	
3	
4	
5	
6	

7	

Berdasarkan hasil pengamatanmu, jawablah pertanyaan-pertanyaan berikut.

1. Apakah fungsi kentang atau apel pada kegiatan tersebut?
2. Mengapa gelas atau stoples tidak ditutup oleh penutup yang kedap udara, seperti plastik?
3. Pada hari keberapa ulat mulai berubah bentuk?
4. Perubahan bentuk apakah yang terjadi pada ulat?
5. Jelaskan secara singkat tahap pertumbuhan ulat hingga menjadi kumbang.
6. Berdasarkan kegiatan tersebut, apakah yang dapat kamu simpulkan?

G. Metode Pembelajaran

Experiment, group discussion, tanya jawab, demonstrasi, simulasi.

H. Model Pembelajaran

VAK (Visual, auditory, kinesthetic) model

I. Media Belajar

1. Buku IPA 4 Yudistira, BSE, Buku IPA 4 Erlangga
2. Macromedia flash player
3. Video.
4. Gambar tentang daur hidup makhluk hidup
5. Wondershare quis creator
6. Kepompong, kupu-kupu dan lalat
7. Peralatan untuk experiment daur hidup yaitu Stoples kecil atau gelas, kain kasa atau kertas koran yang dilubangi, karet gelang, 5 ulat untuk pakan burung, 1 kentang atau apel

J. Rincian Kegiatan Pembelajaran Siswa

Pertemuan ke 2	
5. Pendahuluan Apersepsi dan Motivasi : • Guru mengucap salam dan mengawali kegiatan dengan membaca Basmallah (nilai karakter yang ditanamkan santun, peduli, religi) • Guru menanyakan kabar siswa dan mengecek kehadiran siswa (nilai yang ditanamkan kedisiplinan, peduli, empati) • Guru mengajak siswa untuk menyanyikan lagu tentang	(5 menit)

katak untuk memunculkan motivasi anak untuk belajar dan mengingatkan materi pertemuan selanjutnya tentang daur hidup katak (nilai yang ditanamkan semangat) *Kecebong mandi di kolam* *Kumul-kumul berenang* *Kaki depan tuk, kaki belakang tuk* *Ekor hilang jadilah kodok* • Menyampaikan indikator pencapaian kompetensi dan kompetensi yang diharapkan • Guru menarik perhatian siswa dengan membawa sesuatu yang baru, yakni dengan memakai bros besar yang berbentuk kumbang untuk menimbulkan konflik kognitif (brain stroming) di dalam diri siswa sehingga murid tertarik untuk bertanya dan memunculkan motivasi siswa • Guru bertanya ke siswa, "bros ini berbentuk binatang apa? (kemungkinan jawaban siswa kumbang) • Guru bertanya kepada siswa "darimana asal kumbang? • Guru mengaitkan kumbang dengan tema yang akan di pelajari yakni daur hidup makhluk hidup. • Guru menjelaskan kepada siswa kalu hari ini kita akan melakukan experiment tentang daur hidup untuk mengamati proses perubahan daur hidup ulat pakan burung menjadi kumbang. • Mengumpulkan tugas yang diberikan guru pada pertemuan sebelumnya.	
6. Kegiatan Inti 📖 ***Eksplorasi*** Dalam kegiatan eksplorasi : • Mengulas kembali materi sebelumya tentang daur hidup beberapa hewan • Meminta siswa untuk mempresentasikan pekerjaan kelompok yang telah mereka lakukan sebelumnya tentang daur hidup makhluk hidup secara bergantian di depan kelas agar terjadi diskusi kelompok dan guru sebagai fasilitator. (nilai yang ditanamkan percaya diri, berani, tanggung jawab, saling menghargai, kerjasama, mandiri, berfikir logis dan kritis) • Melibatkan peserta didik secara aktif dalam setiap kegiatan pembelajaran . 📖 ***Elaborasi*** Dalam kegiatan elaborasi : • Guru meminta siswa untuk mengumpulkan bahan-bahan	(5 menit)

yang mereka bawa dari rumah yang di perlukan untuk melakukan experiment. (nilai yang ditanamkan tanggung jawab)

- Guru membagikan lembar pengamatan.
- Guru membagi siswa menjadi 5 kelompok.
- Siswa melakukan experiment dengan bimbingan guru.
- Siswa mengamati dari perubahan yang terjadi pada ulat pakan burung, kemudian mengisi kolom yang sudah di sediakan guru. (nilai yang ditanamkan berfikir logis, mandiri, percaya diri, kerjasama)
- Memberi kesempatan untuk berpikir, menganalisis, menyelesaikan masalah, dan bertindak tanpa rasa takut
- Guru memutarkan program macromedia flash player yang berisi daur hidup yang harus disusun siswa menjadi susunan yang benar.
- Guru memutarkan program aplikasi wondershare yang berisi soal-soal tentang daur hidup makhluk hidup untuk di jawab siswa

📖 ***Konfirmasi***

Dalam kegiatan konfirmasi, guru:

- Guru bertanya jawab tentang hal-hal yang belum diketahui siswa
- Guru member pertanyaan pada siswa untuk dijawab lisan sebagai umpan balik positif tentang tahapan daur hidup makhluk hidup .
  (nilai yang ditanamkan berfikir logis, mandiri, percaya diri)
- Guru memberi penguatan dalam bentuk lisan, tulisan, isyarat, maupun hadiah terhadap keberhasilan peserta didik.
- Memfasilitasi peserta didik melakukan refleksi untuk memperoleh pengalaman belajar yang telah dilakukan.
- Guru bersama siswa bertanya jawab meluruskan kesalahan pemahaman, memberikan penguatan dan penyimpulan

7. Kegiatan Penutup

   Dalam kegiatan penutup, guru:

   - Mengulang penjelasan peristiwa perubahan yang dialami makhluk hidup selama hidupnya sebagai daur hidup.
   - Merangkum atau meringkas inti pokok pelajaran.

- Memuji hasil yang dicapai oleh peserta didik dengan memberikan pujian maupun hadiah.
- Mendorong untuk lebih semangat belajar untuk mencapai kompetensi yang lebih tinggi dengan menunjukkan pentingnya materi yang dipelajari.
- Meyakinkan akan potensi dan kemampuan peserta didik terhadap keberhasilan pencapaian kompetensi belajar untuk menumbuhkan rasa percaya diri.
- Guru melanjutkan dengan refleksi nilai karakter yang terdapat pada daur hidup makhluk hidup yakni kupu-kupu

Ternyata setelah melihat sejarah hidupnya, kupu-kupu yang cantik itu telah melewati berbagai tahap kehidupan yang mengantarkannya pada sosok yang sekarang ini. Dulunya ia hanya seekor ulat yang buruk rupa, hidupnya merayap di dahan dan dedaunan, dan kalau tidak beruntung hidupnya berakhir dimakan burung atau serangga pemangsanya.

Setelah matang menjalani kehidupan sebagai ulat, ia pun mencari tempat yang aman dan berubah menjadi kepompong. Badannya terbujur kaku menggantung di dahan atau dedaunan. Ia tak peduli walau siang hari panas terik menyengatnya dan malam hari dingin menusuknya. Bahkan tak jarang hujan dan badai menerpanya. Ia tetap kokoh ditempatnya bersemedi untuk berubah menjadi diri yang baru, diri yang penuh pesona keindahan.

Beberapa waktu kemudian, akhirnya keluarlah ia dari kepompongnya menjadi diri yang sama sekali baru, indah memukau dengan sayap barunya dan tubuh yang cantik, jauh beda dari wujudnya semula. Dan kini ia telah memiliki keahlian baru, yakni bisa terbang! Lalu ia pun terbang berkelana mencari kuntum-kuntum bunga yang indah untuk menghisap sari bunga dan menebarkan telur-telur penerus kehidupannya.

Begitulah metamorfosis seekor kupu-kupu; dari telur ia menetas jadi ulat, dari ulat ia menempa diri dalam kepompong, dan dari kepompong lalu lahirlah kupu-kupu yang indah menawan. Tahap kehidupannya ia jalani dari generasi ke generasi tanpa ada satu tahap pun yang dapat ia lompati. Tak ada seekor kupu-kupu mana pun yang langsung menetas dari telur, melainkan keluar dari kepompongnya.

Demikianlah, kadang kita ingin menjadi kupu-kupu yang indah, tapi kita tidak mau jadi ulat yang buruk rupa,

	tidak sanggup menjalani kehidupan kepompong yang tak berdaya. Maunya langsung jadi sesuatu yang indah, memukau, mengagumkan dan jadi pusat perhatian banyak orang, langsung jadi kupu-kupu! Oleh karena itu kalau kita ingin jadi kupu-kupu yang cantik, sanggupkah kita menjalani metamorfosis kehidupan?? Metamorfosis itu sendiri bisa dimaknai sebagai *perubahan yang dahsyat atau perubahan besar dalam sifat*. Belajarlah dari proses metamorfosis itu, kalau kita ingin sukses layaknya kupu-kupu yang cantik kita harus belajar yang rajin untuk mencapai cita-cita, kesuksesan itu membutuhkan usaha, tidak diperoleh dengan waktu yang singkat. (nilai yang ditanamkan pedulilingkungan, percaya diri, religious, santun, jujur) . • Guru menanyakan tentang kesan yang dirasakan siswa pada pembelajaran yang telah dilakukan (nilai karakter yang ditanamkan jujur) • Mengadakan evaluasi pembelajaran.	

K. Penilaian:

Nilai Budaya Dan Karakter Bangsa	Indikator Pencapaian Kompetensi	Teknik Penilaian	Bentuk Instrumen	Instrumen/ Soal
○ ***Kreatif :*** Berpikir dan melakukan sesuatu untuk menghasilkan cara atau hasil baru dari sesuatu yang telah dimiliki ○ ***Mandiri :*** Sikap dan perilaku yang tidak mudah tergantung pada orang lain dalam menyelesaikan tugas-tugas ○ ***Rasa ingin tahu :*** Sikap dan tindakan yang selalu berupaya untuk mengetahui lebih mendalam dan meluas dari sesuatu yang dipelajarinya, dilihat, dan didengar	○ Mendeskripsikan urutan daur hidup beberapa hewan secara sederhana. ○ Menyimpulkan berdasarkan pengamatan bahwa tidak semua hewan berubah bentuk dengan cara yang sama. ○ Menyimpulkan bahwa berubahnya bentuk pada hewan menunjukkan adanya	Tugas Individu dan Kelompok	Laporan dan unjuk kerja Uraian Objektif	○ Jelaskanlah urutan daur hidup beberapa hewan secara sederhana. ○ Simpulkan berdasarkan pengamatan bahwa tidak semua hewan berubah bentuk dengan cara yang sama. ○ Simpulkan bahwa berubahnya bentuk pada hewan

○ ***Peduli lingkungan :*** Sikap dan tindakan yang selalu berupaya mencegah kerusakan pada lingkungan alam di sekitarnya, dan mengembangkan upaya-upaya untuk memperbaiki kerusakan alam yang sudah terjadi.	pertumbuhan.			menunjukkan adanya pertumbuhan.

FORMAT KRITERIA PENILAIAN

📖 ***PRODUK (HASIL DISKUSI)***

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

📖 ***PERFORMANSI***

No.	Aspek	Kriteria	Skor
1.	Partisipasi	* aktif berpartisipasi * kadang-kadang berpartisipasi * tidak berpartisipasi	4 2 1
2.	Keaktifan	* Aktif melakukan kegiatan * Kadang-kadang * Tidak aktif	4 2 1
3.	Kerjasama	* mampu bekerjasama dengan teman * kurang mampu bekerjasama * tidak terlibat dalam proses penyelesaian masalah	4 2 1

📖 ***LEMBAR PENILAIAN KELOMPOK***

No	Nama Kelompok	Performan			Produk	Jumlah Skor	Nilai
		Partisipasi	Keaktifan	Kerjasama			
	Kelompok 1						
1.	Achmad Syaifulah						

	Yusuf						
2.	Dina Yulianti						
3.	Muhammad Iqbal Albani						
4.	Siela Julita Cindi Mashitha						
	Kelompok 2						
1.	Aderisty Arista						
	Nur Aisyah						
2.	Arman Maulana						
3.	Ella Rosida						
	Octaviana Putri						
	Kelompok 3						
1.	M. Ikbal						
2.	Romadhani						
	Nikita Amelia						
3.	Hafsah						
	Putri Fajri Hidayah						
	Kelompok 4						
1.	Wulan Zahrah Kuswana						
2.	Muhammad Bintang Syura						
	Jaya Nurcahya						
3.	Dimas Galang Pramono						
4.	Fadhil Mawla Reza Rahardi						
	Kelompok 5						
1.	Adeyanty Arista						
	Nur Aisyah						
2.	Luhur Ahmad Difa' Pratama						
3.	Maulidatuzzilvia						
4.	Mohamat Rizki Septiawan						

CATATAN :

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

- ***Nilai =*** $\frac{11}{16}$ ***X 10 = 9,16***
- ***Untuk siswa yang tidak memenuhi syarat penilaian KKM maka diadakan Remedial.***

....., ...20 ...

Mengetahui
Kepala Sekolah

.....
NIP/NIK :

Guru Mapel IPA

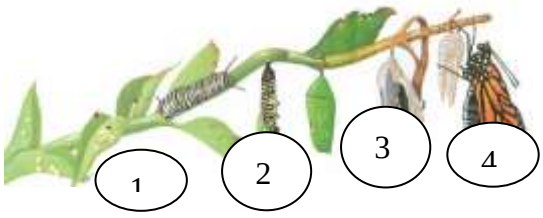
.....
NIP/NIK :

Appendix 14

PRE TEST
DAUR HIDUP MAKHLUK HIDUP

A. Pilihlah jawaban yang paling benar.

1. Berikut ini serangga yang mengalami metamorfosis tidak sempurna adalah ....
   a. kupu-kupu
   b. kecoak
   c. katak
   d. lalat
2. Setelah memasuki tahap ulat, tahapan selanjutnya dalam daur hidup kupu-kupu yaitu . . .
   a. kepompong
   b. kupu-kupu
   c. larva
   d. berudu
3. Ekor katak mengalami penyusutan pada tahap ....
   a. berudu
   b. dewasa
   c. bertelur
   d. menetas dari telurnya
4. Serangga yang tidak mengalami metamorfosis adalah . . . .
   a. kecoa
   b. kupu - kupu
   c. kucing
   d. belalang
5. Tahapan daur hidup kecoak yang benar yaitu . . . .
   a. kecoak - nimfa – telur
   b. nimfa - telur – kecoak
   c. telur - kecoak - nimfa
   d. telur - nimfa – kecoak
6. Katak hidup di dua alam, karena itu katak disebut hewan . . . .
   a. Mamalia
   b. Amfibi
   c. Reptil
   d. Melata
7. Telur kecoa akan berkembang menjadi . . . .
   a. nimfa
   b. kecoa dewasa
   c. pupa
   d. larva
8. Hewan yang memiliki daur hidup seperti nyamuk adalah . . . .
   a. Belalang
   b. Kecoa
   c. kupu-kupu
   d. ayam
9. Beikut ini merupakan daur hidup kupu-kupu adalah . . . .
   a. Kupu-kupu – pupa – larva – telur
   b. Telur – larva – pupa – kupu-kupu
   b. Pupa – larva – telur – kupu-kupu
   d. Telur – pupa – larva – kupu-kupu
10. Pada gambar tersebut, tahap larva ditunjukkan oleh nomor ....
    a. 1
    b. 2
    c. 3
    d. 4



Appendix 15

TUGAS (Cross Word)

Carilah jawaban pertanyaan berikut pada kotak yang tersedia!

W	S	M	A	R	I	J	A	N	A	B	L	E	H	S	Y
I	Y	K	E	P	O	M	P	O	N	G	A	I	S	H	A
J	A	B	U	T	E	L	U	R	A	Q	S	A	T	O	E
A	D	M	U	L	A	T	V	A	K	U	P	A	T	K	H
Y	A	K	D	N	I	M	F	A	K	M	B	E	K	O	P
A	T	T	A	Y	M	I	O	C	U	Z	O	O	J	E	T
N	S	O	C	A	A	L	A	R	V	A	R	I	B	E	T
T	I	R	A	M	G	U	M	O	F	Y	L	I	A	R	E
I	G	I	M	U	O	L	K	E	C	O	A	K	O	R	A
B	I	U	S	K	A	R	T	I	N	I	S	A	Y	A	P
E	T	P	U	R	N	O	M	O	S	Y	M	I	S	I	L
E	S	C	A	M	P	U	R	E	N	A	K	O	S	N	Y

1. Pada daur hidup nyamuk, telur menetas menjadi . . . .
2. Tahap larva pada daur hidup kupu-kupu berupa . . . .
3. Setelah makan daun-daunan, ulat akan berdiam diri dan berubah menjadi . . . .
4. Telur kecoak akan berkembang menjadi . . . .
5. Kecoak dewasa dalam daur hidup disebut pula . . . .
6. Perubahan bentuk pada daur hidup disebut . . . .
7. Daur hidup kupu-kupu diawali dari . . . .
8. Hewan yang mengalami metamorfosis tidak sempurna yaitu . . . .
9. Hewan yang memiliki daur hidup yang sama dengan kupu-kupu yaitu . . . .
10. Nimfa kecoak menyerupai kecoak dewasa, tetapi belum memiliki . . .

Appendix 16

TUGAS KELOMPOK

Nama Kelompok :
1.
2.
3.
4.

1. Sebutkan 3 jenis hewan yang mengalami metamorfosis sempurna dan tuliskan tahapan daur hidupnya.

   a ……

   b. ……...

   c……

2. Sebutkan 3 jenis hewan yang mengalami metamorfosis tidak sempurna dan tuliskan tahapan daur hidupnya.

   a ……

   b. ……...

   c……

3. Sebutkan 3 jenis hewan yang tidak mengalami metamorfosis dan tuliskan tahapan daur hidupnya.

   a ……

   b. ……...

4. Tuliskan pendapatmu mengenai metamorfosis.

   .....

   .....

Appendix 17

TUGAS EXPERIMENT

LEMBAR PENGAMATAN

Nama :……..

Kelas :……..

Sekolah :……

Daur Hidup Makhluk Hidup

Be a scientist!

Daur Hidup Serangga

Tujuan

Kamu dapat mengetahui salah satu daur hidup serangga.

Alat dan Bahan

1. Stoples kecil atau gelas
2. Kain kasa atau kertas koran yang dilubangi
3. Karet gelang
4. 5 ulat untuk pakan burung
5. Kentang atau apel

Langkah kerja

Lakukan secara berkelompok.

2. Siapkan stoples kecil atau gelas dan kain kasa.
2. Potonglah kain kasa menjadi 2 potong. Satu potong untuk alas stoples dan satu potong lagi untuk tutup stoples.

Hati-hati pada saat menggunakan pisau dan gunting karena

9. Potonglah kentang atau apel menjadi 4.
10. Masukkan seperempat bagian kentang atau apel yang telah dipotong kedalam stoples yang telah dialasi kain kasa.
11. Masukkan 5 ekor ulat untuk pakan burung ke dalam gelas yang sudah diisi kentang atau apel.
12. Tutup stoples atau gelas dengan kain kasa. Kemudian, ikat dengan karet gelang.
13. Amati selama beberapa hari hingga ulat itu berubah menjadi kumbang atau serangga.
14. Untuk menuliskan hasil pengamatanmu, buatlah tabel sebagai berikut.

Tabel Pengamatan Perubahan Bentuk Ulat.

Hari Ke…	Bentuk Perubahan pada Ulat
1	
2	
3	
4	
5	
6	
7	

Berdasarkan hasil pengamatanmu, jawablah pertanyaan-pertanyaan berikut.

7. Apakah fungsi kentang atau apel pada kegiatan tersebut?
8. Mengapa gelas atau stoples tidak ditutup oleh penutup yang kedap udara, seperti plastik?
9. Pada hari keberapa ulat mulai berubah bentuk?
10. Perubahan bentuk apakah yang terjadi pada ulat?
11. Jelaskan secara singkat tahap pertumbuhan ulat hingga menjadi kumbang.
12. Berdasarkan kegiatan tersebut, apakah yang dapat kamu simpulkan?

Appendix 18

HOMEWORK

Nama :…….....
Kelas :……...
Sekolah :……..

Amatilah hewan yang ada disekitarmu, dan isilah tabel berikut ini !

No.	Nama Hewan	Jenis Tahap Pertumbuhan	Tempat Hidup
1	Kucing	Tidak mengalami metamorfosis	Darat
2			
3			
4			
5			
6			
7			
8			
9			
10			
11			
12			
13			
14			
15			
16			
17			
18			
19			
20			

1. Hewan apa saja yang mengalami metamorfosis sempurna?

2. Hewan apa saja yang mengalami metamorfosis tidak sempurna?

3. Hewan apa saja yang tidak mengalami metamorfosis?

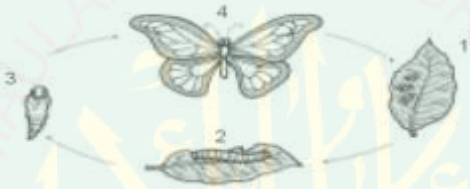
Appendix 19

EVALUASI

DAUR HIDUP MAKHLUK HIDUP

A. Pilihlah jawaban yang paling benar.

1. Perubahan wujud dalam pertumbuhan dan perkembangan mahluk hidup disebut ...
   a. Metabolisme
   b. Metamorfosis
   c. Mutualisme
   d. Komunitas
2. Perhatikan gambar daur hidup kupu-kupu.



   Dari gambar, yang menunjukkan tahapan ulat adalah nomor . . . .
   a. 1
   b. 2
   c. 3
   d. 4
3. Ani menemukan ulat pada daun tanaman hias, kemudian ulat tersebut dimusnahkan oleh Ani karena merusak daun tanaman hias. Kematian ulat tersebut dapat menimbulkan . . . .
   a. jumlah kupu-kupu bertambah
   b. jumlah telur kupu-kupu bertambah
   c. jumlah kupu-kupu berkurang
   d. jumlah ulat bertambah
4. Kupu-kupu dalam daur hidupnya akan dikeluarkan dari . . . .
   a. telur
   b. ulat
   c. kepompong
   d. nimfa
5. Daur hidup belalang sama dengan daur hidup kecoak karena mengalami . . . .
   a. metamorfosis
   b. ametamorfosis
   c. metamorfosis sempurna
   d. metamorfosis tidak sempurna
6. Contoh hewan yang daur hidupnya tidak mengalami metamorfosis adalah . . . .
   a. kambing
   b. kupu-kupu
   c. nyamuk
   d. lalat
7. Di halaman rumah ada anjing, kupu-kupu, nyamuk dan ayam.Hewan yang daur hidupnya mengalami metamorfosis adalah . . . .
   a. anjing dan kupu-kupu
   b. ayam dan anjing

c. kupu-kupu dan nyamuk d. nyamuk dan ayam

8. Ulat sutra diperlihara untuk bahan pembuat kain sutra. Bagian yang dimanfaatkan adalah .
   a. badan ulat c. kupu-kupu
   b. telur sutra d. kepompong
9. Perhatikan daur hidup nyamuk. Nyamuk akan dikeluarkan dari nomor . . . .

   a. 1 c.3
   b. 2 d.4

10. Berikut ini serangga yang mengalami metamorfosis sempurna adalah ....

    a. kupu-kupu c. semut
    b. kecoak d. jangkrik
11. Ekor katak mengalami penyusutan pada tahap ....

    a. berudu c. bertelur
    b. dewasa d. menetas dari telurnya
12. Ayam berkembang biak dengan cara ....

    a. melahirkan anak c. bertelur
    b. vivipar d. bertelur dan melahirkan anak bertelur
13. Jentik-jentik nyamuk disebut ...
    a. Nifma c. berudu
    b. Tempayak d. kecebong
14. Tahapan metamofrosis kupu-kupu yang sering merugikan petani adalah . . . .
    a. Ulat c. Telur
    b. Pupa d. Nimfa
15. Hewan yang mengalami metamorfosis tidak sempurna adalah . . . .
    a. Katak c. kecoa
    b. Kupu-kupu d. Lalat

B. Isilah dengan jawaban singkat

1. Contoh serangga yang mengalami metamorfosis sempurna ialah .....
2. Kupu-kupu terbentuk dari ulat. Makanan ulat adalah . . . . …
3. Metamorfosis ada dua macam, yaitu metamorfosis…….. dan …….
4. Katak hidup di dua alam, karena itu katak disebut ….....
5. Proses pergantian kulit pada tahap pertumbuhan dan perkembangan serangga disebut .....

6. Contoh serangga yang mengalami metamorfosis tidak sempurna adalah .....
7. Unggas berkembang biak dengan cara .....
8. Kepompong ulat sutra dapat dipintal menjadi .....
9. Telur katak yang menetas menjadi ….....
10. Tahapan yang dilalui kupu-kupu setelah menjadi ulat adalah……

C. Jawab pertanyaan berikut ini dengan benar!

1. Apakah yang dimaksud dengan metamorfosis? Beri contoh!
2. Jelaskan perbedaan daur hidup ayam dan daur hidup kucing.
3. Jelaskan tahapan metamorfosis pada kecoak!
4. Gambarkan proses metamorfosis dari katak!
5. Jelaskan secara urut tahap perubahan bentuk pada daur hidup kupu-kupu!

Appendix 20

ANGKET PENILAIAN PEMBELAJARAN IPA UNTUK SISWA

Nama :……..
Kelas :……...

Lingkari pilihan jawaban yang disedikan.

Keterangan Pilihan jawaban:
1 = sangat tidak setuju
2 = tidak setuju
3 = ragu-ragu
4 = setuju
5 = sangat setuju

PERNYATAAN	**Pilihan Jawaban**				
1. Pertama kali saya melihat pembelajaran ini, saya percaya bahwa pembelajaran ini mudah bagi saya.	1	2	3	4	5
2. Pada awal pembelajaran, ada sesuatu yang menarik bagi saya.	1	2	3	4	5
3. Setelah membaca informasi pendahuluan, saya yakin bahwa saya mengetahui apa yang harus saya pelajari dari pembelajaran ini.	1	2	3	4	5
4. Menyelesaikan tugas-tugas dalam pembelajaran ini membuatsaya merasa puas terhadap hasil yang telah saya capai.	1	2	3	4	5
5. Media dan model pembelajarannya sangat menarik perhatian.	1	2	3	4	5
6. Terdapat cerita, gambar atau contoh yang menunjukkan kepada saya bagaimana manfaat materi pembelajaran ini bagi beberapa orang.	1	2	3	4	5
7. Menyelesaikan pembelajaran dengan berhasil sangat penting bagi saya.	1	2	3	4	5
8. Pembelajaran ini sangat abstrak sehingga sulit bagi saya	1	2	3	4	5

untuk tetap mempertahankan perhatian saya.

9.	Saya sangat senang pada pembelajaran ini sehingga saya ingin mengetahui lebih lanjut pokok bahasan ini.	1	2	3	4	5
10.	Isi pembelajaran ini sesuai dengan minat saya.	1	2	3	4	5
11.	Terdapat penjelasan dan contoh-contoh bagaimana manusia menggunakan pengetahuan dalam pembelajaran.	1	2	3	4	5
12.	Tugas-tugas latihan pada pembelajaran ini terlalu sulit.	1	2	3	4	5
13.	Pada pembelajaran ini ada hal-hal yang merangsang rasa ingin tahu saya.	1	2	3	4	5
14.	Saya benar-benar senang mempelajari pembelajaran ini.	1	2	3	4	5
15.	Saya telah mempelajari sesuatu yang sangat menarik dan Tak terduga sebelumnya.	1	2	3	4	5
16.	Setelah mempelajari pembelajaran ini beberapa saat, saya percaya bahwa saya akan berhasil dalam tes.	1	2	3	4	5
17.	Kalimat umpan balik setelah latihan, atau komentar-komentar lain pada pembelajaran ini, membuat saya merasa mendapat penghargaan bagi upaya saya.	1	2	3	4	5
18.	Saya dapat menghubungkan isi pembelajaran ini dengan hal-halyang telah saya lihat, saya lakukan, atau saya pikirkan didalam kehidupan sehari-hari.	1	2	3	4	5
19.	Isi pembelajaran ini akan bermanfaat bagi saya.	1	2	3	4	5
20.	Saya percaya diri bahwa saya akan dapat mempelajarinya	1	2	3	4	5

Appendix 21

FORMAT PENAMPILAN MENGAJAR

A. Identitas Pengamat:

a) Nama Sekolah : .....
b) Kelas : .....
c) Nama Guru IPA yang mengajar di kelas ini : .....
d) NIP : .....

Skala Penilaian:

Pilihlah jawaban anda di bawah ini dengan cara memberi tanda cek (x) pada kolom yang dianggap paling sesuai dengan ketentuan:
5 = selalu
4 = sering,
3 = jarang
2 = jarang sekali
1 = tidak pernah.

No	Penampilan Mengajar	1	2	3	4	5
	Tahap persiapan					
1	Guru mempersiapkan perencaan pembelajaran dengan baik.					
2	Materi yang disampaikan cukup jelas					
3	Guru membuat siswa tertarik dengan materi					
	Tahap penyajian materi					
1	Materi dijelaskan dengan cara yang mudah dipahami					
2	Media yang digunakan menarik siswa					
3	Model pembelajaran yang diterapkan sesuai dengan karakteristik siswa					
4	Guru menunjukkan minat dan antusias dalam pelajaran					
5	Para siswa dapat belajar dengan santai					
6	Media audio yang digunakan menarik bagi siswa					
7	Media visual cukup mudah di pahami siswa					
8	Media mengajar dipergunakan secara baik					
9	Siswa antusias terhadap mata pelajaran					
10	Guru mampu beradaptasi dengan situasi yang tidak terkondisi					
	Tahap Penutupan					

11	Guru sabar dalam memberikan respon terhadap siswa					
12	Guru menyimpulkan pembelajaran dengan baik					
13	Siswa semangat dan mengerti materi yang diberikan					
14	Guru memberi semangat untuk mencari hal-hal baru					

Appendix 22

Cycle I

Location of MI Al-Fattah, Malang

Early condition

Students watching video about life cycle of living

The teacher and researcher observe the stdents' motivation

Puzzle media

The researcher showed wonder share quiz creator application

The students' entusiam to answer the question on wondershare quiz creator

Process of evaluation on cycle I

CYCLE II

The students' presented the task in front of class

Process of experiment to observe the live cycle of catterpillar

The teacher observe the students' motivation

Wonder share quiz creator

Students' enthusiasm in kearning process

Interview with teacher of natural science

Interview with students'

STUDENT'S BIOGRAPHY

Name	: Samrotul Fitriana
NIM	: 09140015
Born	: Blitar, 12 April 1991
Faculty / Departement / Program	: Tarbiyah / PGMI /PGMI
Year of attendant	: 2009
Address	: Jl. Raya Tegal Rejo, No 21, Tegal Rejo, Selopuro, Blitar.
Phone Number	: 085735037065/ 08980085010

Malang, March, 29th 2013
Students

Samrotul Fitriana

CURRICULUM VITAE

Name	: Samrotul Fitriana
Place and date of birth	: Blitar, April, 12nd, 1991
Gender	: Female
Relogion	: Moeslem
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ssAddress	: Jl. Raya Tegal Rejo, No 21, Tegal Rejo, Selopuro, Blitar
Address at Malang	: Jl. Sunan Kali jaga Dalam no 17 Malang
Father's name	: Misdiono
Mother's name	: Khasanah
Email	: Livevitry@yahoo.com
Laguange skill	: English and Arabic
Technical Competencies	: Windows and Office, Macromedia Flash Player, Wonder Share Quiz Creator, Autoplay.

- **Academic Background:**
  - **a. Formal education**
    1. TK. Pertiwi Tahun 1997.
    2. MI Miftahun Najah Tegal Rejo, Selopuro, Blitar (1997-2003)
    3. MTS.N Jambe Wangi, Selopuro (2003-2006)
    4. SMAN 1 Garum, Bence, Garum, Blitar (2006-2009)
    5. S1 Islamic Primary School Education Department, Tarbiyah Faculty, State Islamic University of Maulana Malik Ibrahim Malang (2009- until now)

  - **b. Non Formal Education**
    1. Madrasah Diniyah Salafiyah, kasim, selopuro, Blitar (1999-2001)

2. Mental Aritmatika Course, Tegal Rejo, Selopuro, Blitar (1999-2001)
3. Briiliant English Course, Selopuro, Blitar (2000-2003)
4. Dynamic English and Computer Course, Jambe wangi, Selopuro, Blitar (2003-2006)
5. Progressive English Course, Selopuro, Blitar (2006-2009)
6. Kresna English Corse, Pare, Kediri (2010)
7. Swimming Club, Penataran, Blitar.

- Acievement that reached :
  1. 2nd winner reading poem in primary school (2002)
  2. 2nd winner traditional dance (2003)
  2. 2nd winner olympiade of geography at Blitar city (2008)
  3. 3rd winner olimpiade of economic at Blitar city (2008)
  4. 1st winner cerdas cermat PMR Sekarisidenan Kediri (2008)