

**THE IMPLEMENTATION OF SCIENCE PROCESS SKILL
APPROACH (SPSA) TO INCREASE THE STUDENT'S
SCIENCE SKILLS**

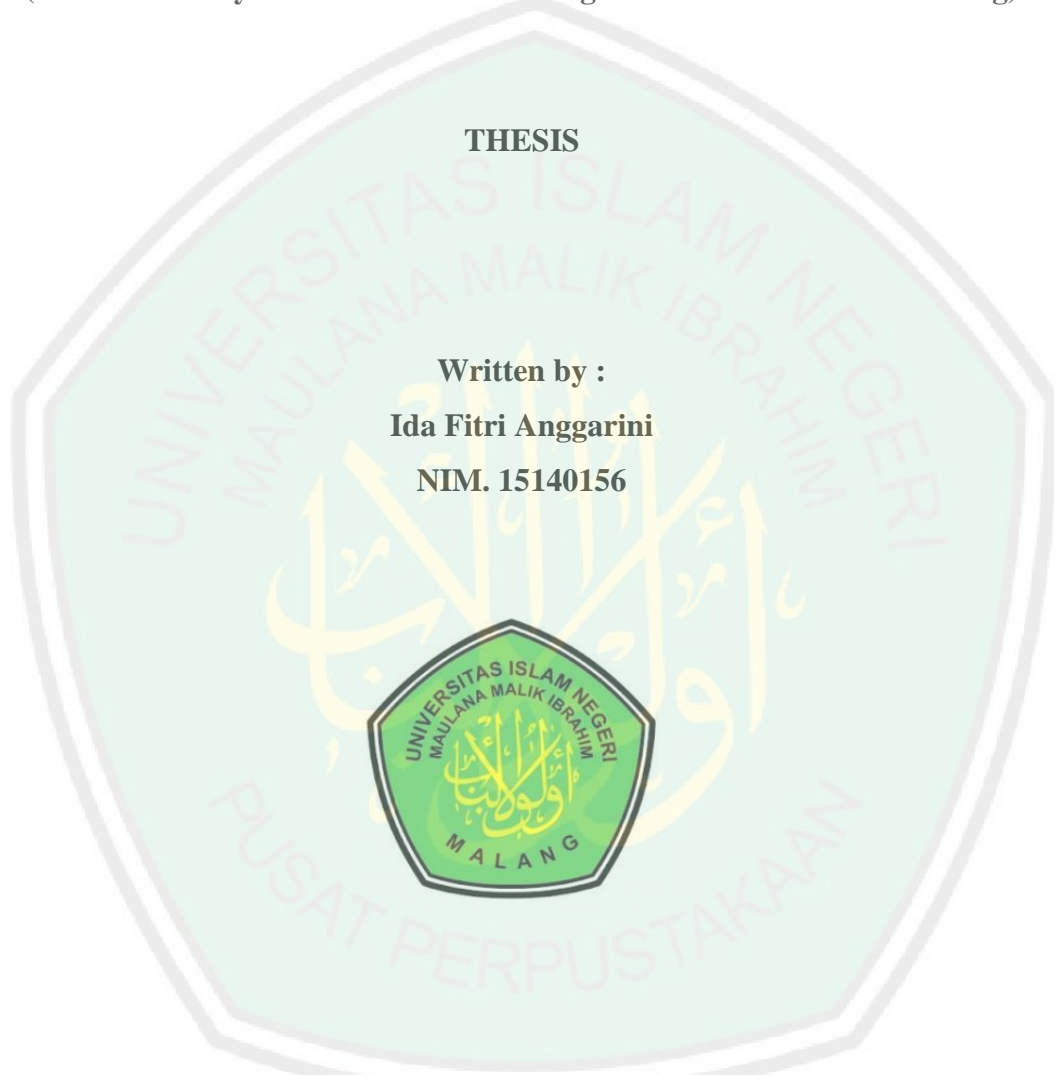
(The Case Study at MI Miftahul Huda Ngadireso Poncokusumo Malang)

THESIS

Written by :

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ISLAMIC ELEMENTARY TEACHER EDUCATION DEPARTMENT

FACULTY OF EDUCATION AND TEACHER TRAINING

MAULANA MALIK IBRAHIM STATE ISLAMIC UNIVERSITY OF

MALANG

May, 2019

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THESIS

Presented to Faculty of Education and Teacher Training

Maulana Malik Ibrahim State Islamic University Malang

In Partial Fulfillment of the Requirements for *the Degree of Sarjana Pendidikan*

(S.Pd)

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APPROVAL SHEET

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(SPSA) TO INCREASE THE STUDENT'S SCIENCE SKILLS

(The Case Study at MI Miftahul Huda Ngadireso Poncokusumo Malang)

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DEDICATION

Being a college student is a hard dream in my life. I just want to be grateful for everything that happen in my life. Further, i'm blessed to have them in my life. So that, i dedicate this research to :

1. Mr, Wasis, Mr Nastainu and Mrs Hartatik as my beloved parents who always support, pray and encourage me. Thank you so much ☺☺☺.
2. Mr Teguh Santoso as my beloved husband, thank you Mas for everything, for always give me so much spirit to be a great student in this university. For your permit till i can be a supervisor in the center of islamic boarding school and so on. Thank you ☺
3. My beloved siblings, Tita, Sahrul, Fahri. I love you Dear. Thank you for make me strong and can finish it. Alhamdulillah.

MOTTO

إِنَّ فِي خَلْقِ السَّمَاوَاتِ وَالْأَرْضِ وَاخْتِلَافِ اللَّيْلِ وَالنَّهَارِ لآيَاتٍ لِّأُولِي الْأَلْبَابِ
الَّذِينَ يَذْكُرُونَ اللَّهَ قِيَامًا وَقُعُودًا وَعَلَىٰ جُنُوبِهِمْ وَيَتَفَكَّرُونَ فِي خَلْقِ السَّمَاوَاتِ
وَالْأَرْضِ رَبَّنَا مَا خَلَقْتَ هَذَا بَاطِلًا سُبْحَانَكَ فَقِنَا عَذَابَ النَّارِ

"Indeed, in the process of creating the sky and the earth and turnover the day and the night, there are the sign for intelligent people(190). Those Who always remember Allah (the God) while standing, sitting or (lying) on their sides and give thought to the creation of the sky and the earth, [saying] “**Our Lord, You didn’t create this aimlessly; exalted are You; then protect us from the punishment of the fire(191)**”¹

Based on the ayat, my motto is :

Everythings Has a Silverline and Big Journeys Begin With Small Steps

¹ Alqur’an, Surat Ali Imran, Chapter 190-191

Dr. H. A.Nurul Kawakip, M.Pd., MA
The Lecture of Education and Teaching Training Faculty
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OFFICE MEMO OF ADVISOR

Malang, May, 7th 2019

Subject : Ida Fitri Anggarini
Attachment : 4 (six) Exemplares

To Whom May It Concern,
Dean of Faculty of Education and Teacher Training
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in
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Assalamu'alaikum, wr wb

This office memo declares that Thesis originally owned by :

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NIM : 15140156
Program : Islamic Primary Teacher Education
Tittle of Thesis : The Implementation of Science Process Skill
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Skills (The Case Study at MI Miftahul Huda
Ngadireso Poncokusumo Malang)

is considered **acceptable** to be defended after being intensively read and regularly consulted in the area of research content, language, and writing composition.

Wassalamu'alaikum, wr wb

Advisor,

Dr. H. A.Nurul Kawakip, M.Pd., MA
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CERTIFICATE OF THESIS AUTHORSHIP

I hereby declare, that this thesis is originally written by Ida Fitri Anggarini, student of Islamic Primary Teacher Education Program (PGMI) as the requirement for degree of Sarjana Pendidikan (S.Pd), Education and Teaching Training Faculty at Maulana Malik Ibrahim, th State Islamic University of Malang. This research writing does not incorporate any material previously written or published by other parties to achieve the other *Sarjana* status of other Higher Tertiary Education, except those which are indicate in the notes, quotation, and bibliography. Therefore, I am the only person who is responsible for the thesis if there is any objection or claim from others.

Malang, May , 7th 2019

Ida Fitri Anggarini

PREFACE

بِسْمِ اللَّهِ الرَّحْمَنِ الرَّحِيمِ

Praise be to Allah SWT The Lord of the world. the creator of everythings in this universe, who has given us the mercy and blessing, so that the writer can finish the thesis entitle “The Implementation of Science Process Skill Approach (SPSA) to Increase the Student’s Science Skill (The Case Study At MI Miftahul Huda Ngadireso Poncokusumo Malang)”.

Let’s not forget to send sholawat and salam to our beloved Prophet Muhammad SAW who has guided us from the darkness to the lightness. And the writer would like to say a deeply thank you for :

1. Prof .Dr. H. Abdul Haris, M.Ag as the Rector of Maulana Malik Ibrahim, State Islamic University of Malang.
2. Dr. H. Agus Maimun, M.Pd as the Dean of Tarbiyah and Teaching Training Faculty.
3. H. Ahmad Sholeh, M.Ag as the Head of Islamic Elementary Teacher Education Department.
4. Dr. H. A. Nurul Kawakib, M.Pd, MA as the Advisor who always give guidance and a lot of suggestion in order to complete the arrangement of this research, thank you so much Sir ☺.
5. All lecturers and staffs of Tarbiyah and Teaching Training Faculty who always help the writer finishing the thesis.

6. Mrs Mulyati, S.Pd. I as the teacher in the sixth grade. Thank you so much Miss for your guidance and warm welcome. Once again thank you.
7. Mr Matqosim, S.Pd. I as the Headmaster of MI Miftahul Huda. Thank you so much Sir for your help and many more.
8. All of family in international class program 2015, who always encourage the writer to finish and fix the research well.
9. My supervisor family, who always give more attention to make sure i focus to finish the thesis. Thank you.
10. And all of my friend which is i can't mention one by one, thank you so much for everything. This thesis isnt only mine but its yours.

Malang, January, 25th, 2019

Writer

TRANSLATION GUIDELINES OF ARAB LATIN

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

A. Letter

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	

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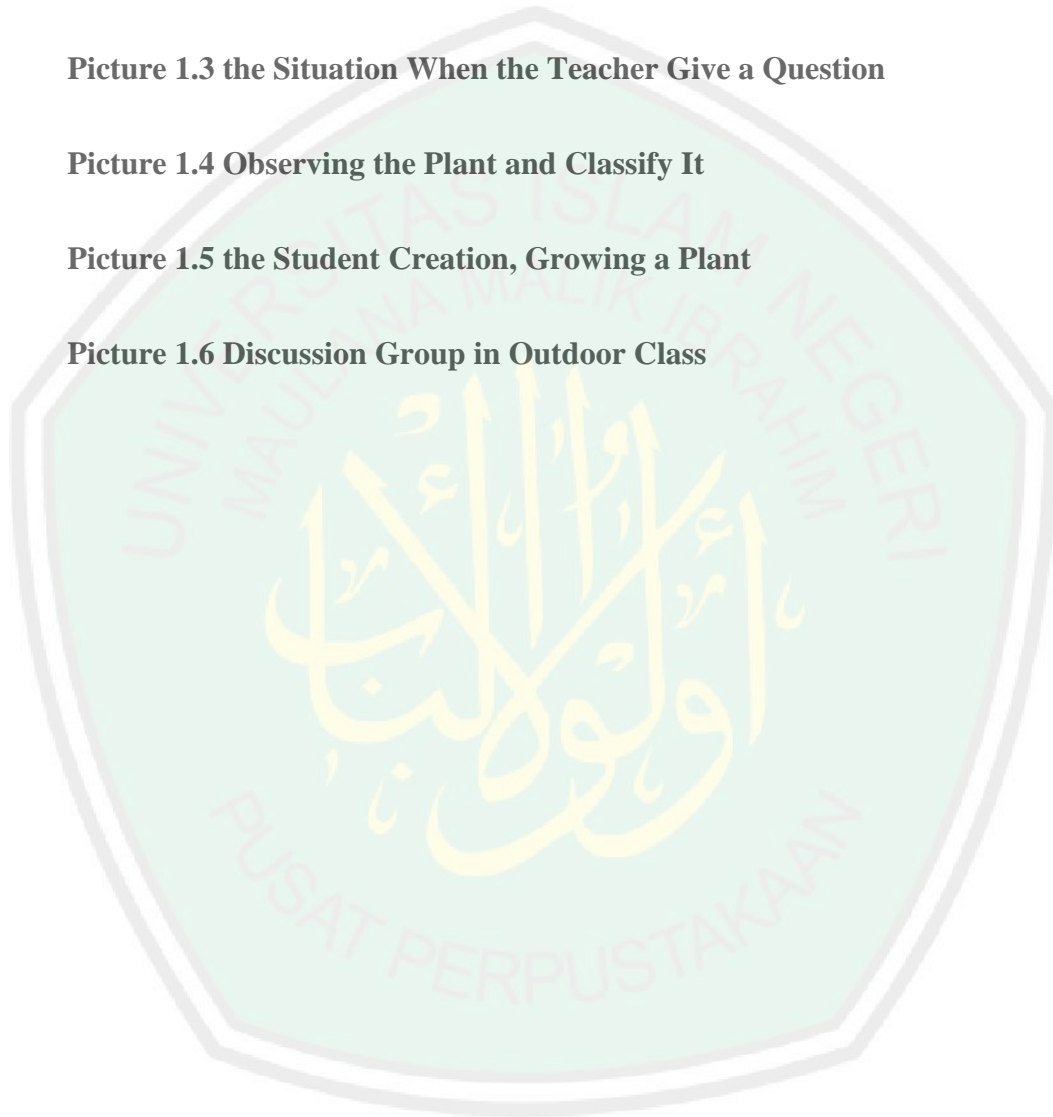
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Picture 1.3 the Situation When the Teacher Give a Question

Picture 1.4 Observing the Plant and Classify It

Picture 1.5 the Student Creation, Growing a Plant

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- 2nd Attachment : Research Letter from Faculty
- 3rd Attachment : Research Letter from MI Miftahul Huda
- 4th Attachment : Curriculum Vitae
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- 6th Attachment : Science Syllabus
- 7th Attachment : Lesson Plan
- 8th Attachment : Teacher
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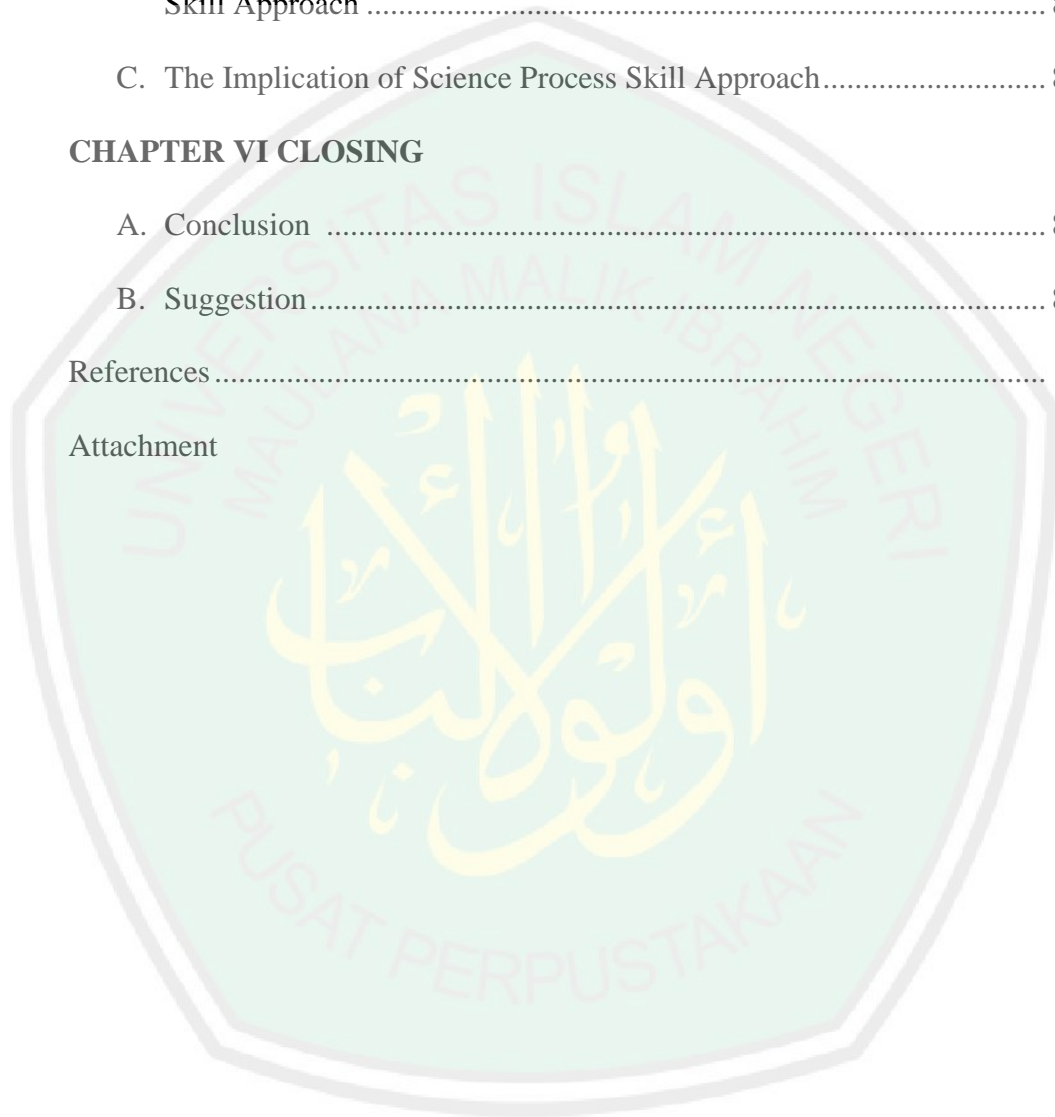
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ABSTRACT

Fitri Anggarini, Ida, 2015. *The Implementation of Science Process Skill Approach (SPSA) to Increase the Student's Science Skill (The Case Study at MI Miftahul Huda Ngadireso Poncokusumo Malang)*". Thesis, Islamic Primary Teacher Education Program, Faculty of Education and Teacher Training, Maulana Malik Ibrahim State Islamic University of Malang. Advisor :Dr. H. A. Nurul Kawakip, M.Pd., MA

Keywords: Science Process Skills, Approach, Science Skills

Nowdays, in 21th century, teaching style isn't only oriented to make the student understand about the topic. But also, the educator prepare them to face every challanges in their life through the daily lesson in the school, such teaching science. There are so many skills in science such observing, experimenting, classifying and soon, that can reflect the behavior that can be practiced it in their life and its called science process skill.

The purpose of this study is: (1)) to explore the implementation of the teacher for teaching the students science process skills, (2) to explain the learning outcomes after implementing the science process skills approach (3) to describe the implication of science process skill approach. The subjects of the research were students in the sixth grade. The type of the research is descriptive qualitative and categorized as a case studies research. The data in this research divided into two types, that are primary data (basic or from the main resources) and secondary data (supporting or from the others). Technique for collecting data through interviewing, observing and documentation. Data analyse start from compiling, disassembling, reassembling and arraying, interpreting and concluding.

The research findings reveal that (1) implementing Science Process Skill Approach beside to make a various learning, also to increase the student's science skills, (2)there are three steps before implementing Science Process Skill Approach start from Planning, Implementing and evaluating, the research outcomes showed that SPSA was increase the student's science skills. (3) there the supporting factor and the obstacles, but the teacher always see the good in everything, so the learning activity was going well.

الملخص

فطري أكارني، إدى، 2015. "تطبيق أسلوب مهارات عملية العلوم لترقية مهارات علوم الطلاب (الدراسة الحالة في المدرسة الابتدائية الإسلامية مفتاح الهدى عاديرسا فونجوكسمو بمالانج)" البحث العلمي، قسم تعليم معلم المدرسة الابتدائية ، كلية علوم التربية و التعليم. جامعة مولانا مالك إبراهيم الإسلامية الحكومية مالانج. الاشراف: الدكتور أحمد نور الكواكب الماجستير الحاج .
الكلمات الأساسية : مهارات عملية العلوم ، الأسلوب، مهارات العلوم

ليس هناك الاتجاه التعليمي يجعل الطلاب يفهمون المواد التعليمية فقد في هذا العصر بل أكثر من ذلك يعدهم المعلمون ليكونوا مستعدين لمواجهة جميع التحديات في حياتهم من خلال أنشطة التدريس والتعلم في المدارس وكذلك تدريس العلوم. هناك المهارات في العلوم منها مهارة الملاحظة والتجريبية والتجميع وغير ذلك. حتى تكون هذه المهارات منعكسا لسلوك الطلاب التي يمكن ممارستها في الحياة اليومية وهذا يسمى بمهارات عملية العلوم.

أما أهداف هذا البحث فهي (1) لشرح أسباب تطبيق أسلوب مهارات عملية العلوم في المدرسة الابتدائية الإسلامية مفتاح الهدى عاديرسا فونجوكسمو (2) لشرح تطبيق أسلوب مهارات عملية العلوم للطلاب تفصيلا (3) لوصف العوامل الداعمة والصعوبة في تنفيذ هذا الأسلوب. وأما غرض هذا البحث فهو الطلاب بالمدرسة الابتدائية الإسلامية مفتاح الهدى عاديرسا فصل السادس. نوع هذا البحث هو وصفي نوعي مع دراسات الحالة. وتنقسم البيانات في هذه البحث إلى قسمين هما البيانات الأساسية (البيانات الرئيسية أو من مصدر البيانات الرئيسي) والبيانات الفرعية (البيانات الداعمة). والتقنيات لجمع البيانات هي المقابلة والملاحظة والوثائق. ويبدأ تحليل البيانات من تنظيم البيانات ، وتقليل البيانات ، وجمع البيانات وتجميعها ، والترجمة (التحليل) ، واستخلاص النتائج.

وتدل نتائج البحث (1) أن تطبيق مهارات عملية العلوم ليس لتنوع التعليم فقد ، بل لترقية مهارات علوم الطلاب (2) هناك ثلاث خطوات في تطبيق مهارات عملية العلوم بدءاً من التخطيط والتنفيذ حتى التقييم. تظهر نتائج البحث أن SPSA ترقى مهارات عملية علوم الطلاب. (3) هناك العديد من العوامل الأساسية والعوامل الفرعية في تطبيق مهارات عملية العلوم ، ولكن المعلمين يرون كل الشيء من الجانب الإيجابي حتى تقوم عملية التعليم على شكل جيد.

ABSTRAK

Fitri Anggarini, Ida, 2015. *Implementasi Pendekatan Keterampilan Proses Sains untuk Meningkatkan Keterampilan Sains Siswa (Studi Kasus di MI Miftahul Huda Ngadireso Poncokusumo Malang)*. Skripsi. Jurusan Pendidikan Guru Madrasah Ibtidaiyah. Fakultas Ilmu Tarbiyah dan Keguruan. UIN Maulana Malik Ibrahim Malang. Pembimbing :Dr. H. A. Nurul Kawakip, M,Pd., MA

Kata Kunci: Keterampilan Proses Sains, Pendekatan, Keterampilan Sains

Dewasa ini, pada abad 21, gaya mengajar tidak hanya berorientasi untuk membuat peserta didik memahami materi pembelajaran, melainkan pendidik menyiapkan mereka supaya siap untuk menghadapi segala tantangan didalam kehidupannya kelak melalui kegiatan belajar mengajar di sekolah seperti pengajaran sains. Terdapat banyak keterampilan-keterampilan di dalam pembelajaran sains seperti mengamati, mencoba, mengelompokkan dan lain sebagainya, yang mana keterampilan tersebut dalam merefleksikan sikap yang dapat dipraktekkan dalam kehidupan sehari-hari dan ini disebut keterampilan proses sains.

Adapun tujuan dari penelitian ini antara lain : (1), untuk mengeksplor cara guru dalam mengimplementasi pendekatan KPS terhadap siswa (2), untuk menjelaskan hasil dari penerapan pendekatan keterampilan proses sains, (3) untuk mendeskripsikan implikasi dari pendekatan keterampilan proses sains. Sasaran penelitian ini adalah siswa kelas 6. Jenis penelitian ini adalah Kualitatif Deskriptis dengan jenis Studi Kasus. Data dalam penelitian ini dikelompokkan menjadi dua macam, yaitu data primer/pokok dan data sekunder. Teknik untuk mengumpulkan data melalui observasi, wawancara dan dokumentasi. Data dianalisis melalui 5 tahapan, yakni penyusunan, penyaringan, pengumpulan kembali, penerjemahan atau analisis dan penarikan kesimpulan.

Hasil penelitian menunjukkan bahwa (1) implementasi pendekatan KPS disamping untuk membuat variasi pembelajaran juga untuk meningkatkan keterampilan sains siswa. (2) ada 3 tahapan sebelum implementasi KPS, yaitu perencanaan, penerapan dan evaluasi, dari hasil penelitian menunjukkan bahwa KPS meningkatkan keterampilan sains siswa. (3) terdapat faktor pendukung dan penghambat, akan tetapi pendidik selalu melihat kebaikan disegala sesuatu sehingga pembelajaran tetap berjalan dengan baik.

CHAPTER I

INTRODUCTION

A. Research Context

Nowdays, the teachers have a certain challanges in teaching learning procees at the classroom. The students are now compossed millennials.They also closed to technology and internet and more understand the technology than previous generations and they have differences attitude. In order to teach well, the teachers need to know who is in their classrooms.

Therefore, understanding of innovation in teaching and learning is important for teachers in order to know the development of multimedia and the variety of learning resources and the product of an innovation. Whereas, the teachers should have competency of innovative teaching because it is one of the factor that influence an innovative on teaching learning process performance such as implementing Science Process Skill Approach. Some researches points out that there are some teachers still have lack competencies in conducting innovative teaching and learning.²

Teaching science such as chemist, physic and the others means gives more than scientific knowledge. There are three dimensions of science that are all important. The first of these is the content of science,

² Nur Ali, *INNOVATIVE TEACHING IN MILLENNIAL ERA*, Proceeding International Conference of Islamic Education:“Information Technology And Media: Challenges And Opportunities”Faculty of Tarbiyah and Teaching Training Universitas Islam Negeri Maulana Malik Ibrahim Malang November 23-24, 2018 P-ISSN 2477-3638 / E-ISSN 2613-9804 Volume: 3, 2018

the basic concepts, and our scientific knowledge. This is the dimension of science that most people first think about, and it is very important.³

Discussing about the important of science, these words have a deep meaning. It's because, almost everyday our activities are connected with science such as when we are planting flower, cooking rice, using iron, making compost, and etc. These examples showed how important the science in our life. As we know that, in this globalization era the purpose of study is not just for creating the clever and dilligent student. Furthermore, the purpose of study is to make and create the student's skills, so that they will be creative, innovative and became a critical student and all of that caused by the science skills. Therefore, the student will be able to face every opportunities in their life. Those arguments above are relate with the goal of education in Indonesia.

As a moslem generation, we trust that Alqur'an & Hadist are the main resource of science, knowledge and so on, moreover we believe them as the way of our life. The writter found an *ayat* that guided us to always think and investigate everythings that happenend in our life and we do it in science. That is *Surah Ali Imran*, chapter 190-191 :

إِنَّ فِي خَلْقِ السَّمَاوَاتِ وَالْأَرْضِ وَاخْتِلَافِ اللَّيْلِ وَالنَّهَارِ لآيَاتٍ لِأُولِي الْأَلْبَابِ
الَّذِينَ يَذْكُرُونَ اللَّهَ قِيَامًا وَقُعُودًا وَعَلَىٰ جُنُوبِهِمْ وَيَتَفَكَّرُونَ فِي خَلْقِ السَّمَاوَاتِ
وَالْأَرْضِ رَبَّنَا مَا خَلَقْتَ هَذَا بَاطِلًا سُبْحَانَكَ فَقِنَا عَذَابَ النَّارِ

³ This research will explore about science in the sixth grade at MI Miftahul Huda Ngadireso Poncokusumo

The meaning is “ Indeed,in the process of creating the sky and the earth and turnover the day and the night, there are the sign for intelligent people(190). Those Who always remember Allah (the God) while standing, sitting or (lying) on their sides and give thought to the creation of the sky and the earth, [saying] “Our Lord, You didn’t create this aimlessly; exalted are You; then protect us from the punishment of the fire(191).”

Based on that *ayat*, we know that as a human being we must think and think until we find the correct knowledge, deep information and we know that everything has a meaning. So that, it’s related with science causes in science we do many skill, such thinking, analyzing, calculating and etc.

Rasulullah SAW said in hadist :

عَلِّمُوا أَبْنَاءَكُمْ السِّبَاخَةَ وَالرَّمْيَ ، وَالْمَرْأَةَ الْمِغْزَلَ

The meaning is “teach your children swim,archery and teach the girl spinning”.⁴

It’s mean that, we as a human being must have any skill. So that, we can compete with the others. Discussing about skill, such public speaking, cooking, painting and etc. In science, there are many skill such as define the problems around us, to observe, to analyze, to hypothesize, to experiment, to conclude, to generalize, and to apply the information they have with necessary⁵, and all of them are called as Science Process Skills.

⁴ Abdurrahman bin Ibrahim dkk, *Al Arabiyah Bayna Yadayk*, (Future Media Gate) P. 29

⁵ Yuliani Febriana, *Penerapan Pendekatan Saintifik Untuk Meningkatkan Keterampilan Proses Sains Di Kelas IV SD*, Jurnal Pendidikan Guru Sekolah Dasar, Universitas Pendidikan Indonesia, Vol 1, No, 1 Desember 2016

Science process skills (SPS) are defined as transferable skills that are applicable to many sciences and that reflect the behaviors of scientists. Some scientist give the arguments about SPS and it can be an approach that used by the teacher.

SPS are the skills that facilitate learning in physical sciences, ensure active student participation, have students developed the sense of undertaking responsibility in their own learning, increase the permanence of learning, and also have students acquired research ways and methods, that is, they ensure thinking and behaving like a scientist. For this reason, it is an important method in teaching science lessons.⁶

Science process skills have been described as mental and physical abilities and competencies which serve as tools needed for the effective study of science and technology as well as problem solving, individual and social development⁷.

For those argument, the writer consider how important the student Science Process Skills. Because, with able do this, the student will have many science skills and it can help them to face every challanges in this modern era.

⁶Remziye Ergül, dkk, *The Effects Of Inquiry-Based Science Teaching On Elementary School Students' Science Process Skills And Science Attitudes*, Bulgarian Journal of Science and Education Policy (BJSEP), Uludag University, Turkey. Volume 5, Number 1, 2011

⁷Folashade Afolabi, dkk, *Analysis of Science Process Skills in West African Senior Secondary School Certificate Physics Practical Examinations in Nigeria*, American-Eurasian Journal of Scientific Research, University of Ibadan, Ibadan, Oyo State, Nigeria. 5, 2010

Discussing about science, our mind always think about laboratory that use science tools completely, practical work everyday, do some observation, use a white coat, a sterile place and many others. But, in this research. the writer found the school in Ngadireso Poncokusumo namely MI Miftahul Huda⁸. The school is so unique, it is because of the location of the school is in the village, so there is no any laboratory here, just near with the forest, small lake, river and Semeru Mountain. Surprisingly, the student have a great rank in KSM (Kompetisi Sains Madrasah) and included a good school in Malang, especially in Poncokusumo area.⁹

Based on the interview¹⁰, the researcher realize that the student in this school is active, give a quick respons when someone asked them about science, dicipline because the teacher manage the class well. The researcher see the creation of them in the wall in everyclass, good in collaboration and many more. According to the researcher, even the the location of the school is in the village, but they've got a good education especially in science education. It can reflects a good behavior such as scientist. So that, the researcher feel curios with the way of the teacher for teaching the students science process skills.

Therefore, for explaining and describing any activity and experience, the writter do a research entitled the Implementation od Science Process Skill Approach (SPSA) to Increase the Student's Science Skills (the Case Study at MI Miftahul Huda Poncokusumo Malang).

⁸ Observation in MI Miftahul Huda at date October, 24th 2018

⁹ Interview with Ibu Mul..., the teacher in MI Miftahul Huda, at date March, 23th 2018

¹⁰ Ibid, interview

B. Research Questions

Based on the research context, to make sure that the writer focus on the research, so the research question are :

1. How does the teacher's implement the Science Process Skill (SPS) Approach?
2. How does the learning outcomes after implementing the Science Process Skill Approach?
3. How does the implication of Science Process Skill Approach?

C. Objective of the Research

Based on the question of the research, the objective of this research are :

1. To explore the implementation of the teacher for teaching the students science process skills.
2. To explain the learning outcomes after implementing the Science Process Skill approach
3. To describe the implication of Science Process Skill approach.

D. Significance of the Research

Based on the research objectives, the significances of teaching the students science process skill, are:

1. On the theoretical
 - a. In a theoretical, expected to describe the ways and the reasons for teaching the students science process skill.
2. On the Practical
 - a. For the next researcher

This research expected to improve knowledge about teaching the students science process skill.

b. For the teacher

Motivate the teacher to be creative and innovative for teaching the student science process skill.

c. For students

Motivate them to always think critics and be a great student with able to practice a science process skills.

E. Research Originality

1. Nur Ali, *INNOVATIVE TEACHING IN MILLENNIAL ERA*, Proceeding International Conference of Islamic Education: “Information Technology And Media: Challenges And Opportunities” Faculty of Tarbiyah and Teaching Training Universitas Islam Negeri Maulana Malik Ibrahim Malang November 23-24, 2018 P-ISSN 2477-3638 / E-ISSN 2613-9804 Volume: 3, 2018. This research explain about the problem that face by the teacher and talk about innovative learning while my research discuss about the product of innovative learning through Science Process Skills Approach.
2. Lailia Khoirunnisa’, *Pengembangan Prosedur Praktikum Sub Tema Macam-Macam Sumber Energi Untuk Menumbuhkan Keterampilan Proses Sains Siswa Kelas IV SDN CANGKRING1 Perak Jombang*. This research using research and development method, while i am using qualitative descriptive method with case studies.

3. Rizka Sofyan Saputri, *Peran Guru dalam Meningkatkan Sikap Ilmiah Peserta Didik Kelas V-B di MIN Demangan Kota Madiun*. This reserach just discuss about scientific behavior, but my research discuss about science process skills and included scientific skills.
4. Akinyemi Olufunmini Akinbobola and Folashade Afolabi, *Analysis of Science Process Skills in West African Senior Secondary School Certificate Physics Practical Examinations in Nigeria*. This research discuss about basic and intregated science process skill and use quatitative method and it's definetly different with my research that focus on the teaching of the student science process skills..
5. Remziye Ergul, Yeter Üçüklü, Sevgül Çaliü, Zehra Özdölek Üirin Göçmençelebø, Meral Üanlı, *The Effects Of Inquiry-Based Science Teaching On Elementary School Students' Science Process Skills And Science Attitudes*, this research use quantitative with experiment and different with my research that focus on the teaching of the student science process skills.

Tabel 1.1 Research Originality

No	Previous Research	Equation	Difference	Research Originality
1.	Lailia Khoirunnisa', <i>Pengembangan Prosedur Praktikum Sub Tema Macam-Macam Sumber Energi Untuk Menumbuhkan Keterampilan Proses Sains Siswa Kelas IV SDN CANGKRINGI Perak Jombang</i> . This research is thesis, using research and development method, UIN Malang, 2017	Discuss about the student science process skill.	Research and developme nt method.	Qualitative descriptive method with case studies.

2.	Rizka Sofyan Saputri, <i>Peran Guru dalam Meningkatkan Sikap Ilmiah Peserta Didik Kelas V-B di MIN Demangan Kota Madiun</i> . This reserach is thesis, UIN Malang, 2016	Discuss about scientific behavior that included in the student science process skill	Focus of the research is scientific behavior	Focus on the student science process skills
3	Akinyemi Olufunminiyi Akinbobola and Folashade Afolabi, <i>Analysis of Science Process Skills in West African Senior Secondary School Certificate Physics Practical Examinations in Nigeria</i> . This is Journal that published by American-Eurasian Journal of Scientific Research	Discuss about the student science process skill	They use quatitative method	Qualitative method with case studies
4	Remziye Ergul, Yeter Üøùeklø, Sevgül Çaliù, Zehra Özdølek Üirin Göçmençelebø, Meral Üanlı, <i>The Effects Of Inquiry-Based Science Teaching On Elementary School Students' Science Process Skills And Science Attitudes</i> . This is journal that published by Bulgarian Journal of Science and Education Policy (BJSEP	We're talking about the student science process skills	Quantitativ e method with experiment	Qualitative method with case studies
5	Nur Ali, <i>INNOVATIVE TEACHING IN MILLENNIAL ERA</i> , Proceeding International Conference of Islamic Education: "Information Technology And Media: Challenges And Opportunities "Faculty of Tarbiyah and Teaching Training Universitas Islam Negeri Maulana Malik Ibrahim Malang November 23-24, 2018 P-ISSN 2477-3638 / E-ISSN 2613-9804 Volume: 3, 2018	Talk about the learning process that nowadays the first thing seen by the teacher is the process not the result	Science Process Skills Approach is one of the product of innovative learning	Providing new ways to teach through SPSA.

Therefore, based on the table above, there are so many differences between this research and the previous research, such the method, the type of the research, the focus of the research and the background of the research.

F. Definition of Key Terms

The objectives of this chapter is to avoid a misunderstanding in translating the words that related with this research, so, the writer decide to make a key term, there are :

1. Teaching

According to Cambridge Dictionary the meaning of teaching here is give someone knowledge, train someone, or instruct. So that we can make a conclusion that related with this research that its can be the teachers activity to make sure their student get more knowledge, teach science and train them to be a scientist with all the activities in science process skill.

2. Student

The learner who study in the school, especially in MI Miftahul Huda and in the sixth grade.

3. The Skill Process

The skill process is an approach that applied by the teacher in the learning activities to ensure the participation of the student, so that they will get the meaningfull learninf such as their own knowledge, fact or concept.

4. Science Process Skill

Science process skills (SPS) are defined as transferable skills that are applicable to many sciences and

that reflect the behaviors of scientists. They are the skills that facilitate learning in physical sciences, ensure active student participation, have students develop the sense of undertaking responsibility in their own learning, increase the permanence of learning, and also have students acquire research ways and methods, that is, they ensure thinking and behaving like a scientist.¹¹

5. Sixth Grade

The student who study in sixth grade, as an information that a basic education is start from first grade until sixth grade and that is the last grade in elementary school.

G. Systematics of the Writing

Systematics of the writing in this research are divided by three chapters, and each chapter have their own part.

First Chapte, discusses about the background of this research, why the writer choose to research about the topic. Mention about the research question so that we will know the focus of the researcher, and also explain about the objectives and significances to make sure that this research is meaningfull. Talking about research originality to determine that this research is original and didn't plagiarize. The next one is about definition of key terms to make sure that this research is clear and does not contain

¹¹ Op.Cit Remziye Ergül, dkk,

and misunderstanding and the last is about the systematics of writing to explain micro content of this research.

Second Chapter talks about the review of related literature about the student science process skills.

Third Chapter explains about the research method that consist of approach and type of the research, researcher attendance, place of research, data and data resources, technique for collecting data, data analysis, procedures of research.

Fourth Chapter explains about data explanation and research findings that consist of general description of MI Miftahul Huda (School Profile,History,Motto,Vission,Mission,Objective,Characteristic,Basic Pattern of Learning Activities,Facilities and Infrastructure,Academic Support Activity). Description of the sixth grade, furthermore describe about the implementation of SPSA.

Fifth Chapter explains about all data that related with the research question and disscuss it, then, mix and match with the literature.

Sixth Chapter talks about closing that consist of conclusion and suggestion. the last one is references.

CHAPTER II

REVIEW OF RELATED LITERATURE

A. Science Process Skill

1. The Definition of Teaching Science

According to Cambridge Dictionary the meaning of teaching here is give someone knowledge, train someone, or instruct. Teaching is a complex, multifaceted activity among teachers and learning resources to juggle multiple tasks and goals simultaneously and flexibly. Teaching is also said as a way working with student, a process of interaction among teachers, students and learning resources which the teacher do something to the students and the student also do something in return directly or indirectly. Teaching is also as any action performed by the teacher with the intention of facilitating learning for the students in order they learn effectively and efficiently through direct presentation, guided discovery (such SPSA) or using media. Thus teaching is a process of organizing learning resources or environment around the students, so it can grow and push them to conduct and follow the teaching learning process effectively and efficiently. So that, we can make a conclusion that related with this research that its can be the teachers activity to make sure their student get more knowledge, teach science and train them to be a scientist with all the activities in science process skill and get the knowledge effectively.¹²

¹² Op.cit, Nur Ali

The real meaning of science is as a way of thinking, a way of investigating and a body of knowledge.¹³ Its called as way of thinking because science is a mental activity who investigated about them, and investigate about all the natural phenomenon that happend and and its called a body of knowledge causes in science we find a fact, principle, concept, theory and etc that will applied in biology, chemistry or physic and many others.

Beside that, according to Mrs Asri's book, science came from *scientia* that has a meaning *knowledge*, and in the science consist of physical science and life science. The example of physical science such as astronomy, chemistry, geology, mineralogy, meteorology and physic. And then the example of life science such as anatomy, physiology, zoology, cytology, embryology, microbiology. In that book, the meaning of science is specific, that is nature of science that means science is a way of looking everything at the world.¹⁴

Carin & Sun (1989) were define that science is the system for understanding the universe through controlled observation and experiment.¹⁵

For those argument, we can make a conclusion that teaching the science means the teacher gives all of knowledge about science to the student with their technique, method and ect, especially the lesson in elementary school and of course, the lesson is related and based on the main book.

¹³ Siti Fatonah, and Zuhdan, *Pembelajaran Sains*, (Yogyakarta: Ombak, 2014) P.6

¹⁴ Asri widowati, *Diktat Pendidikan Sains*, (Yogyakarta : Univ Yogyakarta, 2008) P.2

¹⁵ Ibid., P 1

2. The Definition of Process Skill

According to Arrofa, the definition of process skill are,

“Keterampilan proses adalah pendekatan pembelajaran yang menekankan pada proses belajar, aktivitas dan kreativitas peserta didik dalam memperoleh pengetahuan, keterampilan, nilai dan sikap, serta menerapkan dalam kehidupan sehari – hari. Dari pengertian tersebut, termasuk diantaranya keterlibatan fisik, mental, dan social peserta didik dalam proses pembelajaran, untuk mencapai suatu tujuan.”¹⁶

Based on those argument, we know that in process skill, the student will be actived in learning process and find their own knowledge. So that, the learning will be meaningfull.

As an approach, this skill process give a good impact to the student, because this approach ensure the participation of the student, force them to more active than before and try to ask them to find their new knowledge, it can be with experiment class, more practice and etc. So, they will build their own knowlegde and more understand about the lesson.

3. The Definition of Science Process Skill

Science- A Process Approach (SAPA) grouped science process skills under two main headings. 1) The first is called as basic science process skills (BSPS), such as observing, measuring and using number, and classifying. BSPS provide the intellectual groundwork in scientific inquiry (Walters & Soyibo, 2001). These skills are those which must be acquired in the first level of primary education. And the latter is called integrated science process skills (ISPS), *such as controlling variables, formulating hypothezing, and experimenting*. These

¹⁶ Arrofa Acesa, *Penerapan Pendekatan Keterampilan Proses Sains Untuk Meningkatkan Hasil Belajar Siswa Dalam Pembelajaran IPA* Oleh : Arrofa Acesa Dosen PGSD FKIP Universitas Kuningan

skills are structured on basic skills. Some studies have indicated that there is a positive relationship between SPS and Piagetian development level and finding supports the separation of process skills into a two-level hierarchy, namely basic and integrated (Brotherton & Preece, 1995).¹⁷

The science process skills form the foundation for scientific methods.

There are six basic science process skills:

- Observation
- Communication
- Classification
- Measurement
- Inference
- Prediction

These basic skills are integrated together when scientists design and carry out experiments or in everyday life when we all carry out fair test experiments. All the six basic skills are important individually as well as when they are integrated together. The six basic skills can be put in a logical order of increasing sophistication, although even the youngest students will use all of the skills alongside one another at various times.

In the earliest grades students will spend a larger amount of time using skills such as *observation and communication*. As students get older they will start to spend more time using the skills of *inference and prediction*. *Classification and measurement* tend to be used across the grade levels more

¹⁷ Remziye Ergül, *op.cit*, p. 49-50

evenly, partly because there are different ways to do classifying, in increasingly complex ways, and because methods and systems of measuring must also be introduced to children gradually over time.¹⁸

In related to this research, the 6th grade student in MI Miftahul Huda, focuses on Observing, Experimenting, Classifying, and Measuring skills.

Therefore, the implementation of the science process skill, it means that, we are preparing a future scientist, and with do that, can reflect a behavior of science and it can be the student's character. For example : a measuring activity can reflect a focus and careful behavior, an observing activity can show an discipline, patient, hard work and etc. So that, this science process skill is important for the student and expected all of them can be a great generation with science skills. Imagine, if our generation aware about science in their childhood. It isn't impossible for Indonesia to have so many scientist in the future. The researcher remember about wise words "The development about country depends on its generation, if we have a good generation, we will have a good country and if we have a bad generation we will have a bad country" is that right?, definitely yes.

4. Implementation of Science Process Skill Approach Procedures

a. Science Begins With Observation

Observing is the fundamental science process skill. We observe objects and events using all our five senses, and this is how we learn about the world around us. The ability to make good observations is also essential to the

¹⁸) www.longwood.edu diakses pada Hari Selasa, 19 Februari 2019, pukul 11.47 WIB

development of the other science process skills: communicating, classifying, measuring, inferring, and predicting. The simplest observations, made using only the senses, are qualitative observations¹⁹. For example, the leaf is light green in color or the leaf is waxy and smooth. Observations that involve a number or quantity are quantitative observations. For example, the mass of one leaf is five grams or the leaves are clustered in groups of five. Quantitative observations give more precise information than our senses alone.

b. Communication

As implied already, communication, the second of the basic science process skills, goes hand in hand with observation. Students have to communicate in order to share their observations with someone else, and the communication must be clear and effective if the other person is to understand the information. One of the keys to communicating effectively is to use so-called referents, references to items that the other person is already familiar with. For example, we often describe colors using referents. We might say sky blue, grass green, or lemon yellow to describe particular shades of blue, green, or yellow. The idea is to communicate using descriptive words for which both people share a common understanding. Without referents, we open the door to misunderstandings. If we just say hot or rough, for example, our audience might have a different idea of how hot or how rough. If a student is trying to describe the size of a pinecone they might use the size of his or her shoe as a referent. The pinecone could be either larger or smaller than his shoe.

¹⁹ Teaching Science Process Skill 6/12

c. Measuring

The additional science process skill of measuring is really just a special case of observing and communicating. When we measure some property, we compare the property to a defined referent called a unit. A measurement statement contains two parts, a number to tell us how much or how many, and a name for the unit to tell us how much of what. The use of the number makes a measurement a quantitative observation.

Students can communicate their observations verbally, in writing, or by drawing pictures. Other methods of communication that are often used in science include graphs, charts, maps, diagrams, and visual demonstrations.

d. Classifying

Students in the early grades are expected to be able to sort objects or phenomena into groups based on their observations. Grouping objects or events is a way of imposing order based on similarities, differences, and interrelationships. This is an important step towards a better understanding of the different objects and events in the world.

There are several different methods of classification. Perhaps the simplest method is serial ordering. Objects are placed into rank order based on some property. For example, students can be serial ordered according to height, or different breakfast cereals can be serial ordered according to number of calories per serving. Two other methods of classification are binary classification and multistage classification. In a binary classification system, a set of objects is simply divided into two subsets. This is usually done on the basis of whether each

object has or does not have a particular property. For example, animals can be classified into two groups: those with backbones and those without backbones.

A binary classification can also be carried out using more than one property at once. Objects in one group must have all of the required properties; otherwise they will belong to the other group.

A multi-stage classification is constructed by performing consecutive binary classifications on a set of objects and then on each of the ensuing subsets. The result is a classification system consisting of layers or stages. A multi-stage classification is complete when each of the objects in the original set has been separated into a category by itself. The familiar classifications of the animal and plant kingdoms are examples of multi-stage classifications. A useful activity for younger children could be to create a multi-stage classification of some local animals using physical and/or behavioral similarities and differences.

e. Making Inferences and Predictions

Unlike observations, which are direct evidence gathered about an object, inferences are explanations or interpretations that follow from the observations. For example, it is an observation to say an insect released a dark, sticky liquid from its mouth, and it is an inference to state, the insect released a dark, sticky liquid from its mouth because it is upset and trying to defend itself. When we are able to make inferences, and interpret and explain events around us, we have a better appreciation of the environment around us. Scientists' hypotheses about why events happen as they do are based on inferences regarding investigations.

Students need to be taught the difference between observations and inferences. They need to be able to differentiate for themselves the evidence they gather about the world as observations and the interpretations or inferences they make based on the observations. We can help students make this distinction by first prompting them to be detailed and descriptive in their observations. Then, by asking students questions about their observations we can encourage the students to think about the meaning of the observations. Thinking about making inferences in this way should remind us that inferences link what has been observed together with what is already known from previous experiences. We use our past experiences to help us interpret our observations.

Often many different inferences can be made based on the same observations. Our inferences also may change as we make additional observations. We are generally more confident about our inferences when our observations fit well with our past experiences. We are also more confident about our inferences as we gather more and more supporting evidence. When students are trying to make inferences, they will often need to go back and make additional observations in order to become more confident in their inferences. For example, seeing an insect release a dark, sticky liquid many times whenever it is picked up and held tightly will increase our confidence that it does this because it is up-set and trying to defend itself. Sometimes making additional observations will reinforce our inferences, but sometimes additional information will cause us to modify or even reject earlier inferences.

In science, inferences about how things work are continually constructed, modified, and even rejected based on new observations..

5. The Importance of Science Process Skill Approach

Learning science lesson by apprehending requires using science process skills (SPS). Having science process skills acquired, at the same time, means preparing future scientists, having scientific literacy acquired, that is enabling students to use science information in daily life (personal, social and global) (Harlen, 1999). Science process skills are based on scientific inquiry and teaching science by inquiry involves teaching students science process skills, critical thinking, scientific reasoning skills used by scientists (Pratt & Hackett, 1998) and inquiry is defined as an approach to teaching, the acts scientists use in doing science and it can be a highly effective teaching method that helps students for to understanding of concepts and use of process skills (Yager & Akçay, 2010)²⁰

Due to the above-mentioned importance of science process skills, many researchers have focused on this subject matter. In recent years, many studies have been conducted on students' acquisition of basic science process skills (BSPS) and integrated science process skills (ISPS)

Nowdays, based on the previous research²¹, teaching in millennial era has so many differences. Such the behavior of the student, technology, internet, the student's skills and etc. Implementing Science Process Skill Approach is a new

²⁰ Op.cit, Remziye Ergul. P 49

²¹ Op.cit. Nur Ali

product from innovative learning that conduct by the teacher beside to increase the student's science skills.

Providing innovative teaching through science process skill is the obligation of the teacher to make the variety of learning, increase the teacher's competency. Moreover, through innovative teaching the student more understand the topic than implement the 'old' ways.

Moreover, the objectives implement the science process skills are for helping students to reach their full potential and their goals by providing new material, new product and new strategy for helping them for gaining new insights, new ideas, or opened up new channels of intellectual stimulation or increasing student's creativities²² and of course science skills.

B. Characteristic of the Student

1. Sixth Grade Student's Characteristic Commonly

We can make an average that sixth grade students are 11-12 years old. Commonly, at that old the charachers of the student such brave, think abstract, can classify and soon.

Based on theory of cognitive²³, cognitive came from cognition that has a meaning understand. According to Piaget, he classified the theory into four level. That is Sensory, Motory, Pre-operational and concrete-operational²⁴. Based on this theory, the development of the student always

²² Op.cit. Nur Ali

²³ Yamin, Moh, *Teori dan Metode Pembelajaran*, (Malang: Madani, 2015) p. 51
Ari Setiawan, *Teori Belajar Kognitif*, (aristwn.staff.iainsalatiga.ac.id, diakses 23 September 2018 jam 20.24 wib)

follows their old. When the student reached 11 years old or in 6th grade, they will in concrete operational, that means they able to think abstract and reasonable. That why this theory is related with the student science process skill, because they can classifying, make a hyphothesize and etc.

According to Robert J Marzano and John S Kendall, cognitive system is consist about the skill how to retrieval, comprehend, analyze and utiliting knowledge²⁵. And this argument is important for the student, because through science process skill, the student will get more knowledge and the learning will meaningfull. Even, the impact of this approach, they will think and behave like scientist.

Learning always involves analyzing and transforming any new information. Piaget stressed that such transformation depends on the mind's capacity to learn from experience—within any one context, we learn by actions, by selfdirected problem-solving aimed at trying to control the world. Abstract thought evolves from such concrete action²⁶. It follows that

... teaching that teaches children only how to manipulate abstract procedures (e.g., learning how to solve equations) without first establishing the deep connections between such procedures and the activities involved in the solution of practical concrete problems (which the procedures serve to represent at a more abstract level) is bound to fail. (Wood 1998, 9)

Robert J Marzano and John S Kendall, *The New Taxonomy of Educational Objectives*, (Oaks, California: Corwin Press 2007) p. 35
19. J Myron Atkin and Janet E Coffey, *Everyday Assesment in the Science Classroom*, (Arlington, Virginia : NSTA Press, 2003) p. 4

Based on the several argument, the foundation of this theory is a mind. This theory has a philosophy argument that is “*the way in which we learn*” it can be called as a rationalism philosophy.

According to this theory, we learn causes by our skill to interpretate everything happen in our environment, theory of cognitive try to explain in a learning, how the people think. Therefore, this theory more make an importance of learning process than the result, cause according to this theory, learning is involving a complex of thinking process. So that, according to this theory, an education is the result of thinking process and it is relevant with science process skill that always teach the student to think in every meeting of learning.

Meanwhile, theory of constructivism²⁷ Bruner (1973) said that the differences of teaching type are expository and discovery. Discovery learning is an approach which is the student can construct their own knowledge.²⁸ Bruner said that the discovery learning has some advantages, are :

- a. Improve the student's intelligence.
- b. Learning about heuristic
- c. Help for doing retention and retrieval

Bruner also said, when this discovery learning means a method, the teacher only became a facilitator and the student will get more

²⁷ Wangsa, Teguh, *Filsafat Pendidikan*, (Jakarta : Arruz Media, 2011) p. 189

²⁸ Haryanto, *Teori yang Melandasi Pembelajaran Konstruktivistik*, Jurnal, Universitas Negeri Yogyakarta

knowledge by themselves. So that they will recognize and solve the problem. Even, they will have a skill to face every challenges in their life.

Current “constructivist” theories focus attention on the models that a learner employs when responding to new information or to new problems.²⁹ According to this theory, first time of the student can get a knowledge causes of their active learning. Such as in science process skills, the students do many activities like observing, measuring, concluding, experimenting and etc.

The learning concept in this theory is a learning process that make the student to active construct the new concept and knowledge base on data. Such as after experimenting, the student make a conclusion and know about the new knowledge.

Therefore, the learning process must plan and manage well. So that, can able to motivate and encourage the student manage their new experience and understanding became a meaningful knowledge. According to the constructivism theory, it is so important a role of the student. And for make an usual thinking of the student, so that the teacher must do an activity that can make them always think and improve their skill.

This theory said that the student is the center for discover the knowledge. They arrange and construct their knowledge through all of the

²⁹ Op,Cit, J Myron, p. 3

learning experience that can be a knowledge. This theory also teach the student to be an independent student, cause they must discover their new knowledge thats needed for ther life. Therefore, the conclusion is this constructivism theory is related with the students science process skill.

2. Islamic Student Characteristic

Minanur Rohman said, there is relation between Alqur'an and Cognitive, that is *Surah Al 'Alaq* in the first chapter. The meaning is, “*Read!, with the Name of the God who created*”. He said, this surah contain an imperative word. It's mean that Allah asks us to always read everything and it isn't just about writing, so that the human being will feel usual to always think. For the next meaning that is “*with the Name of the God who created*” its mean that the goal of read and every activity is for Who Created, back to Who Created us, that is Allah or *Li Taqarrub Ila Allah*. This one make a differences between a moslem and the other.³⁰ Meanwhile, we can make a conslusion that one of the student's characteristic is always read and investigate about everything that happen in their life furthermore it mentions in Alqur'an as their way of life.

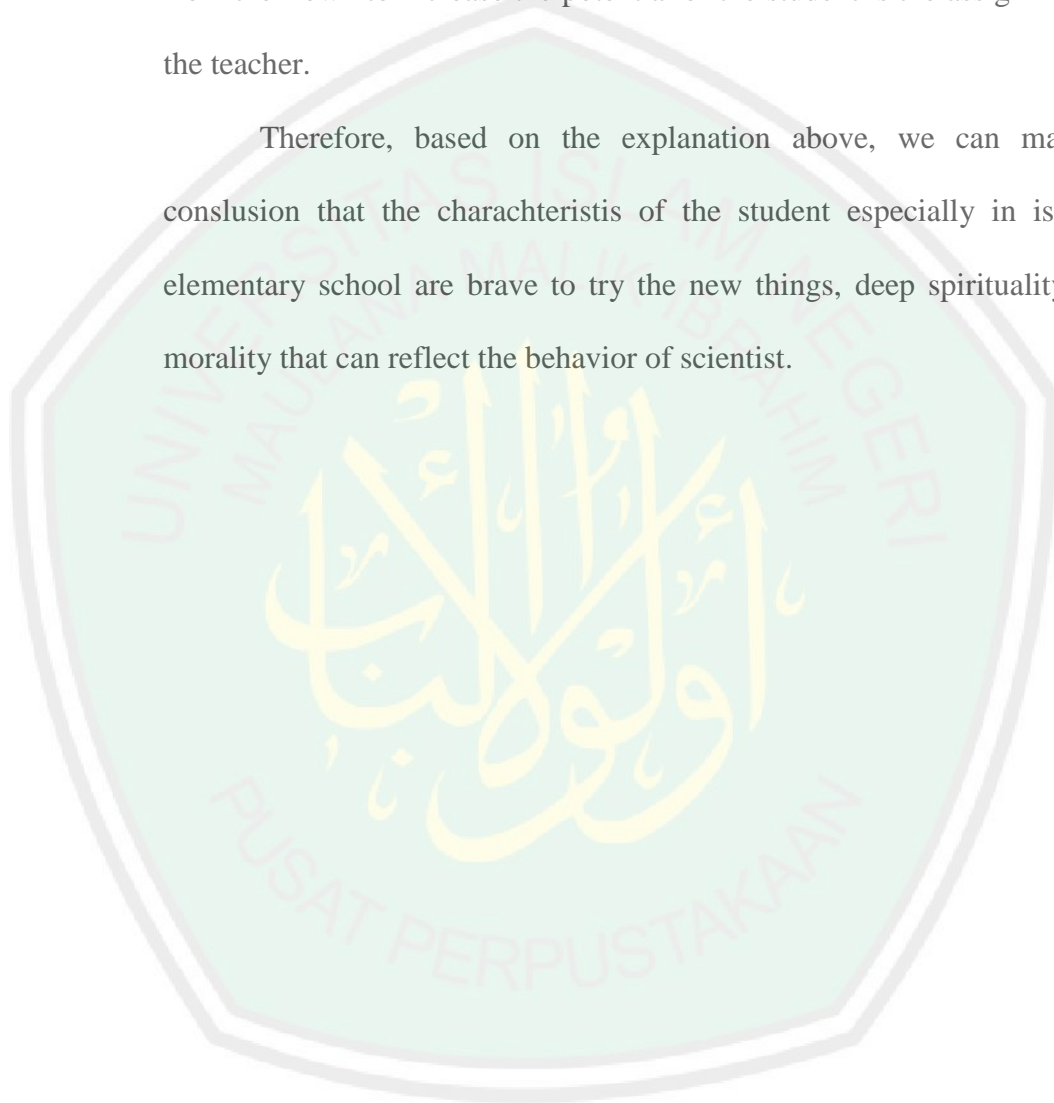
Discussing about islamic student charachteristic, based on the previous research³¹, in millenial era there are the difference between islamic student and the other such they have deep spirituality and morality that it can reflects the behavior of scientist or the skills process. Preparing

³⁰ Minanur Rohman, *Teori Kognitif Dalam AlQur'an*, Jurnal Pustaka, Universitas Brawijaya, Juli-Desember 2014

³¹ Op.cit, Nur Ali

students for diversity and cross-cultural interaction. The students have to learn to deepen their understanding by listening to the insights of their friends, particularly those with backgrounds and experiences different from their own to increase the potential of the student is the assignment of the teacher.

Therefore, based on the explanation above, we can make a conclusion that the characteristics of the student especially in Islamic elementary school are brave to try the new things, deep spirituality and morality that can reflect the behavior of scientist.



CHAPTER III

RESEARCH METHOD

A. Approach and Type of the Research

This research uses a descriptive qualitative method. So, the researcher just describes the real case that happens in the field. Because, as we know that, science and technology is dynamic till we will face a different phenomenon in every time. And the kind of this research is case studies.

The reason why choose this approach because the researcher would like to know and describe clearly the planning in teaching the student science process skills. Furthermore, the researcher want to know the way of the teacher's implementation in teaching the students science process skills and then described the supporting factors and obstacles that happen in this teaching activity, the last one is to describe the evaluation of teaching SPS.

According to Dr. Wahid Murni, said that

“...metode penelitian kualitatif merupakan suatu cara yang digunakan untuk menjawab masalah penelitian yang berkaitan dengan data berupa narasi yang bersumber dari aktivitas wawancara, pengamatan, pengalihan dokumen”.³²

Based on the argument above, we know that in this research we will describe anything that related with the research from any data, such as interview data, observation and documentation.

According to Corbin dan Strauss (2015:5)

³² Wahid Murni, *Pemaparan Metode Penelitian Kualitatif*, (Malang, 2017) P. 1

“pendekatan kualitatif merupakan bentuk penelitian dimana peneliti dalam mengumpulkan dan menganalisis data menjadi bagian dari proses penelitian sebagai partisipan bersama informan yang memberikan data”.³³

From those argument, give an information that the researcher will analyze all data during the research happen.

The kind of this research is case studies, according to Yin (2009)

“...studi kasus merupakan penyelidikan empiris kontemporer dalam konteks kehidupan nyata, terutama ketika batas-batas antara fenomena dan konteks tidak begitu jelas”.³⁴

Moreover, according to Prof. Dr. Mudjia Rahardjo, M.Si, case studies is :

“suatu kegiatan ilmiah yang dilakukan secara intensif, terinci dan mendalam terhadap suatu peristiwa atau program supaya mengetahui peristiwa tersebut secara mendalam”.³⁵

Therefore, the reason choose the case studies causes to explore about teaching the student science process skills clearly and deeply.

B. Researcher Attendance

The research that use qualitative method, the main tool is a human being. It is mean that the research involves the researcher as an instrument to collect data, interview and etc. So that, the researcher must attend in the place of research.

The benefit of attendance is the researcher will know each other with the teacher, student, head master, the enviroment and etc and it will give a good impact to the researcher. And it will make a easier research.

³³ Ibid, P, 5

³⁴ Ibid, P, 5

³⁵ Mudjia Rahardjo, *Studi Kasus Dalam Penelitian Kualitatif: Konsep dan Prosedurnya*, (Malang : UIN Malang, 2017) P, 3

As an information, the attendance of the research in qualitative method is very important cause of during the research, the researcher will analyze all data directly. Moreover, the method of this research is qualitative with case studies, the researcher will observe how the teacher teach in the science class and both of the teacher and researcher will make a good collaboration till this research finished well.

C. Location of the Research

The location of this research is in MI Miftahul Huda Ngadireso Poncokusumo Malang, which is it can be called as one of the best islamic school in Poncokusumo.

The reason why choose this school, cause of based on geographycal, the school is located in Poncokusumo, near Bromo mountain and so many hill, small river, fresh air, fresh water and etc and it is a good condition for doing a learning.

More of that, even the school is located in the small village which is, there isn't a complete tool or laboratory, the teacher have a good effort to teach the student and try to improve the student science process skill.

Therefore, the research would like to do the research in that school.

D. Data Resources

The data in this research will divided by two types, that are primary data (basic or from the main resources) and secondary data (supporting or from the others).

Primary data obtains from interviewing and the ability that reflect to the science process skill and secondary data obtains from documents, objects, pictures and etc that can be used for completing primary data.

Resources of data will divided by two, that is human and non human. Human data resources uses as subject or key informant that related with the science process skill, such as student, teacher, head master, stakeholder and etc. Non human data resources its look like a document, picture, notes, moment and etc that related with the theme.

E. Technique for Collecting Data

According to Dr. Wahid Murni in the technique and guidance to write a thesis, he explained that in this chapter we don't need to give a definition about this chapter, more of that, the researcher must focus on the research question, the reason why use the technique and how to implement the technique, so that when doing the research. The researcher will be focus and write an important things.

There are the technique for collecting data in this research, are :

1. Interview

From this technique, the researcher will know the object's explanation about the student science process skill. The researcher will use structured interviews and qualitative interview. The structures interviews means that the researcher doing interview with a script. Meanwhile, the

qualitative interview, it's look like a sudden interview, no script and usually the researcher have a good relation with informant.³⁶

According to Dr Wahid Murni, we can make a table to support our research and make it easier, and the researcher consider to adopt this table, such as below :

Table I.2 Informant and Interview Theme

NO	Informant	Interview Theme
1.	Teacher	<ul style="list-style-type: none"> a. Why choose this approach b. How to arrange the lesson plan c. The method, strategy and media for teaching the student science process skill. d. The supporting factor and obstacles e. The evaluation of SPSA
2.	Student	<ul style="list-style-type: none"> a. The condition in science class b. How many doing experiment? c. The way of teaching of the teacher d. What kind of the material that usual do an experiment? e. What do u feel when the teacher use this approach? f. Do you like the several skill, such as observing, experimenting and etc?

³⁶Robert K Yin, *Qualitative Research From Start To Finish*, (New York : TheGuilford Press, 2011) p. 133

		g. Why you like the experiment class?
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And many others. The researcher will re-arrange the question when its needed and related with the research.

Data collected with this technique, included :

1. The reason choosing this approach
2. Description about the class and the student feel.
3. The planning for teaching the student science process skill.
4. The implementaion for teaching the student science process skill.
5. The supporting factor and obstacles for teaching the student science process skill.
6. The evaluation for teaching the student science process skill.
7. The meaningfull of the approach toward the student

2. Observation

It is because a qualitative method, the researcher must observe everything that happen during the researcher running. Observing can be an invaluable way of collecting data because what you see with your own eyes and perceive with your own senses is not filtered by what others might have (self-) reported to you or what the author of some document might have seen.

In this sense, the observations are a form of primary data, to be highly cherished. Not surprisingly, strictly observational studies have been

a long- standing part of the research methods in social psychology (e.g., Weick, 1968). There, the researcher is completely passive.³⁷

Data collected from this technique are :

1. The condition of learning activities in science class
2. How the teacher open and close the class
3. How the teacher explain the lesson
4. Guidance of the teacher
5. The process of experiment
6. How the student can observe, explain, measure and classify
7. The interaction between the student and the teacher, the student with the tool and etc.
8. The student creation and behave like scientiest (student's activity)
9. All everything that happened in the schooll and class and many others.

3. Documentation

Nowdays, when we talk and observe about something and without show an evidence it can be hoax. So, to make sure that the research is reliable, the researcher will attach a documentation.

Many documents can be useful simply by the nature of the details the contain. These include picture, some document, the spelling of names, titles, and organizations, the affixing of specific dates to events, and the

³⁷ Ibid, Robert K Yin, p 143

specific language used in mottos, slogans, mission statements, and other communications.³⁸

Data collected with this technique, included :

1. Lesson plan of the teacher for teaching the student science process skill.
2. Student's worksheet.
3. Student's attendance
4. Student's book
5. Teacher's worksheet that used by the student
6. Researcher's notes
7. Videos of learning activities
8. Photos of learning activities and many others.

F. Data Analyze

In the qualitative research, data analyze during the research running. At the same time, although analyzing qualitative research does not follow any cookbook, neither is it totally undisciplined. In fact, practical experience in doing qualitative research as well as the analytic styles portrayed in numerous texts suggest that most qualitative analysis— regardless of the particular qualitative orientation being adopted— follows a general, five- phased cycle. The rest of this chapter is therefore structured around this cycle, briefly described next³⁹ :

1. Compiling

³⁸ Ibid, Robert K Yin, p 149

³⁹ Ibid, Robert K Yin, p 177

Analysis “begins” by Compiling and sorting the field notes amassed from the fieldwork and other data collection. The researcher would have refined these notes nightly, and might have separately amassed notes from archival sources. But neither set would necessarily have been put in any order other than the order in which they had been created. The first phase—Compiling—therefore means putting them in some order. The finished compilation might be considered a database.

In this level, the researcher arrange the data. All of the data that have been collected, the researcher make it become one related with the topic that the researcher needed. For example : when converse about science process skill, the researcher collect and arrange all the data that related with it.

2. Disassembling

The second phase calls for breaking down the compiled data into smaller fragments or pieces, which may be considered a disassembling procedure. The procedure may (but does not have to) be accompanied by the assigning new labels, or “codes,” to the fragments or pieces.⁴⁰ The disassembling procedure may be repeated many times as part of a trial-and-error process of testing the result of collecting data and many others.

In this phase, the researcher focuses on the needed data. When didn't need it, the researcher decided didn't analyze it. For example : we

⁴⁰ Ibid, Robert K Yin, p 178

make a folder that related with the reason why using the approach. It more spesific and help us to analyze data easier.

3. **Reassembling and Arraying**

The rearrangements and recombinations may be facilitated by depicting the data graphically or by arraying them in lists and other tabular forms. Or it look like make a note or table about data and it will make an analyze easier.

Sometimes, when we analyze data. We didn't need it. But, in fact, the next chapter we need it and reassemble again. Because the data is related with the research. So, we use it again. In this chapter, we array the fix data. We do this cause of to help the interpret chapter easier. For example : data about implementation is fixed. But, we need more to make sure we provide the complete data, so this is the assignment in this chapter.

4. **Interpreting**

The fourth phase may be considered one of Interpreting the reassembled data. Initial interpretations may lead to the desire to recompile the database in some fresh way, or to disassemble or reassemble the data differently, all of these sequences represented by the respective one-way and two-way arrows.⁴¹ All of data is fixed. The next phases is interpreting data. What kind of this information? Is that related with the theory? How about the solution and many more.

⁴¹ Ibid, Robert K Yin, p 179

5. Concluding

The fifth and final phase may be considered one of Concluding. It calls for drawing the conclusions from the entire study. Such conclusions should be related to the interpretation in the fourth phase and through it to all of the other phases of the cycle.⁴²

This is the end of the process. In this case the researcher will make an inference about the case that happen. This is the last key of the research.

G. Technique of Validation

The qualitative research use this technique causes of the main instrument that is the researcher, so to make sure that the data is objectived, the researcher need to do validation. That are :

1. Triangulation

The principle of triangulation comes from navigation, where the intersection of three different reference points is used to calculate the precise location of an object (Yardley, 2009, p. 239).⁴³

The writer give a meaning of triangulation, that is the way to check the validity of data through compare data with the other. And then, triangulations are divided by two, are :

- a. Resources data triangulation

⁴² Ibid, Robert K Yin, p 179

⁴³ Ibid, Robert K Yin, p 81

It's mean that, the researcher will compare data from the student toward the teacher, or from the other such as headmaster, stakeholder and etc.

b. Method triangulation

The meaning of method triangulation is when the researcher compare between the result of interview and observation or document, such as compare the lesson plan with the result of interview.⁴⁴

H. Procedures of Research

This research is in the 6th grade class in MI Miftahul Huda, Ngadireso Poncokusumo Malang. The research will conduct for three months, from October, 22nd till Desember, 16th 2018. and the researcher will observing at that time and focus on science learning. The researcher will focus on primary and secondary data and the sources of data are everything that relevant with this research. Such as a stakeholders, headmaster, teacher, student, document and etc. For measuring the students science process skill, the reseacher will observ the learning activity, the student response, interview with the teacher and the student, the teacher method and also assesement.

The techniques for collecting data are using obsevation method, interview, and documentation. This technique is used for collecting so

⁴⁴ Op.Cit, Wahid Murni, p. 15

many data until the researcher can make some analysis and can interpreted data.



CHAPTER IV

DATA EXPLANATION AND RESEARCH FINDINGS

A. DATA EXPLANATION

In this chapter, the researcher will explain all related data that have been obtained in MI Miftahul Huda Ngadireso Poncokusumo. The research conducted from October, 22nd till Desember, 16th 2018.

Based on that, the researcher decided to explain and provide the data that related with research question, there are :

1. Explore the implementation of the teacher for teaching the students science process skills.
2. Explain the outcomes of Science Process Skill (SPS) Approach implementation.
3. Describe the implication of Science Process Skill (SPS) Approach

Here, the researcher will explain about data that related with the research as stated as follows :

1. Implementation of Science Process Skill Approach

MI Miftahul Huda is one of the best islamic elementary school in Poncokusumo. It has a six grade from grade 1 till 6. This school use K13 or Curriculum 2013 especially for the sixth grade. The advisor in sixth grade is Mrs Mulyati, S.Pd.I who has a great effort and endeavored to teach the student with

different approach, strategy, method and etc. She utilize everything near the school to make the variety of learning⁴⁵.

There are 23 students in the sixth grade⁴⁶, the lists is below :

Citra Ayu Permata Hati	Aldo Farizal Adinata	Algefin Hadian Dafa	Diandra Yopi Tata
Fahmi Idris	Fatiha Maula Wardah	Glory Qwenzha DS	Hana Fauzia Ramadanani
Maulida Aisyatuz Z	M. Aditya Saputra	M. Khoirul Anam	Mulia Iryania
M. Abdul Haris	M. Arjun Mufakhihus S	Nabila Anisatul H.	Radia Regita Deva NC
Selvi Pratama Putri	Windi Ayu Santi	Sheril Fransiska	Arman Javar F
Zaskia Nur Ramadanani	Ria Anggraini	Nazirotul Alfiyah	

The sixth grade student use the 2013 Curriculum (K13), which is in the first semester they studied science about :

1. First theme
 - a. Subtheme 1 – The plant is my friend
 - b. Subtheme 2 – The animal is my friend
 - c. Subtheme 3 - Let's save the plant and animal.
2. Third theme

⁴⁵ Observation in MI Miftahul Huda on November, 8th 2019 at 09.20 am

⁴⁶ Documentation from the observation at MI Miftahul Huda

- a. Subtheme 1 - Scientist change the world
- b. Subtheme 2 – Scientist and its benefit
- c. Subtheme 3 – Let's be a scientist !

Meanwhile, the subject that applied through Science Process Skill Approach are :

1. Reproduction of Plant and Animal
2. Growth and Development of the Plant
3. Classifying (Generative and Vegetative Plant)
4. Electricity
5. Magnet



Picture 1.2 : The sixth grade student⁴⁷

⁴⁷ Documentation

The reason why Mrs Muliati teach them through science process skill approach is because she would like to train them to have a science attitude that they can practiced it everyday. She said :

“ why i choose this approach. Its because i would like to increase the quality of learning, to make them more active and happy in the class, to make them more understand about the lesson. Meanwhile, the main objective of practicing this approach isn't only to increase their cognitive. But, i would like to make them have a science skill that can reflect a good attitude or behaving like scientist. For example Mbak, when they usual dicipline everyday, measure the things correctly, observing, experimenting and etc. It can train them to be dicipline also, patient, carefull, teamwork, curiosity and many more and i'm sure its also related with our educational goal right? And next year they will face so many excercises, as you know that they're the last class in elementary school. I did this approach to make them remember about the topic easier and it can be help them in excercises because i've heard about quotes practice is more effective than just reading, writing or listening”⁴⁸

Meanwhile, the learning process isn't only in the class. She always instruct the student to read the lesson at home. For growing a plant, there is a text about it in the book, so the student read the text and then they will practice everything in the text at school. They try to grow a plant and observe it. She said :

“ there are many field and plant in our area, near of school. So, me as a teacher would like to take a benefit from it. Furthermore, all of the student feel so happy when i choose outdoor class. Some of them said that it looks like we didn't study Mam,, and we feel happy. They said like that because they don't know, actually they still study to classyfung, to observe something, to do an experiment, to have a teamwork and many more, they didn't realize it. So, i prefer practice this approach”⁴⁹.

⁴⁸ Interview with Mrs Muliati, S.Pd as the advisor of the sixth grade on Wednesday, 31th, 2019 in her office at 09.45

⁴⁹ Ibid, interview

Based on the observation, the student really active and have a higher spirit and motivation to fix everything in the experiment class. They look like have a high curiosity about the lesson that she talking about. One of the student, Tata said that:

“ Ya, we’re so happy Miss. When we do an experiment class, because all of us like that and practice it well. We like to explore everything and when Mrs Muliati ask us to experiment class, we will smile and more spirit cause of we will more understand about the topic and its very helpfull when we face a middle test or post test hehehe”⁵⁰

According to the writer, these conversation between the student and the teacher is connected and consistent. Based on th observation. When Mrs Muliyati ask them to do some experiment. They will prepare it well. For example, when Mrs Muliyati said that they must bring a water, a bean, cotton, nail and many more, they do that and the next week all of the student bring it. What an obedient and clever student right?.

The researcher just curious why all of them have a good motivation and spirit in experiment class. She said :

“ i just motivate them before and after the learning process Mbak, everyday everytime. Beside that, most of the student, they do love in science lesson. I just facilitate them and guide them how to fix every problem in science. How to fix the experiment. How to answer the question. Somehow, i make a song about science Mbak and they’re so happy and understand”⁵¹

Meanwhile, the writer ask to the head master⁵² about science process skill.

Because the writer would like know his perspective. He said :

⁵⁰ Interview with Tata, one of the sixth grade student on Friday, 26th October, 2018, in her class at 09.00

⁵¹ Ibid, interview

⁵² Interview with the headmaster of MI Miftahul Huda at his office

“ as the headmaster, i will always support everything as long as its good for my student. For increasing their skill, talent, interest and many more. When i observe the 6th activity, i think it can be called as the various learning. The student can explore themselves, running from one place to the another place to find the correct plant and etc. Even we didn't have the laboratory yet. This learning is related with the mission of the school”.⁵³

Based on the interview above, we know that. So many objective when the teacher implementing the science process skills approach toward the student. It can be for spirituality, morality, cognitive or skill. As and information, the previous objectives is the 2013 curriculum assesment.

a. The Procedures of the Implementation of Science Process Skill Approach in MI Miftahul Huda

1) Objective

Based on the observation⁵⁴ and interview, the objective of Implementing Science Process Skill Approach are “

- a) To increase to student's science process skills
- b) To train the student to observe something or to do an experiment.
- c) To make the easier assesment cause of in science process skill, the teacher can assess four aspect of the student directly.
- d) To make to student remember about the lesson and its very helpfull for national examination.
- e) Utilize the things (bean, lemon, field, river and etc) near the school that related with the lesson.

⁵³ Interview with Mr Mat Qosim, S.Pd.I as the headmaster of MI Miftahul Huda on November 3rd 2018 in the school office at 09.25

⁵⁴ Observation in MI Miftahul Huda on November 13th, 2018 at 08.22 am

- f) To make the student more active and ensure the participation of the student.
 - g) To make the student more understand about the lesson.
 - h) Implemented the vission and the mission of the school.
 - i) Try to change the modern learning even teach in village area.
- 2) Method

Mrs Mulyati practice so many method in the class with the detail as stated as follows :

a) Question and Answer Method

This method is practiced when the teacher would like to know and explore the knowledge of the student. To test them and check have they read the lesson before at home or not. As an information, Mrs Mulyati always train and give the student a homework that is read the lesson, read the text and tomorrow when in the class she will review it.



Picture 1.3 : the situation when the teacher give a question⁵⁵

b) Observation Method

⁵⁵ Documentation on October, 23th, 2018

This is the main method in 2013 Curriculum. Nevertheless, when practice Science Process Skill Approach, the teacher must practice this method. Its impossible the student will understand the lesson, have a higher curiosity without this method. Using this method is similar with ask the student to think again, to be critics human and concluse their thought and its called Science Process Skill.



Picture⁵⁶ 1.4 : Observating a plant near the school and classify it.

c) Experiment Method

Let Vygotsky said “when the children can do together today, they can do alone tomorrow”. It means that, we train our student to be dicipline. In 2013 curriculum, there are so many activities that must practice with teamwork. She said “

“Cause we practice in 2013 Curriculum, everyday i train them and ask them to make a teamwork. To be dicipline and their creation will be an

⁵⁶ Documentation on December 5th, 2018

assesment for me. Meanwhile, when they practice this method, they're so happy as relevant with my previous statement".⁵⁷



Picture 1.5⁵⁸: The Student Creation, Growing a Plant.

As and information, cause the writer start the research on last October and the lesson is in 2nd theme, so, Mrs Mulyati review and practice again how the plant grow use a bean. Exactly, in the first meeting, she practice and do an experiment about corn because in that place so easy to find corn and some of the parent of the student was harvesting a corn. She said :

“ Exactly, in the text book, there are a picture about how the corn grow, so i decided to practice it at class. Meanwhile, cause mbak ida do a research after i did the lesson so i practice it with bean, and i think its ok cause the student maybe find the differences between both of them.”⁵⁹

After this interview, the writer checked with the student book and its related

d) Discussion Method

Through discussion, the student will explore their mind, exchange an opinion, collaborate each other, solve the problem and fix it till they've got the conclusion. Its really important for them especially in Science Process Skill.

⁵⁷ Ibid, interview

⁵⁸ Documentation on October, 26th, 2018

⁵⁹ Interview with Mrs Mulyati On November, 10th, 2018 at 7,20 pm in her home.

When they're usual practice critical thinking they will able face everything in their life such as fix the task, help their friend, give a solution and many more. Indonesian actresses namely Maudy Ayunda who accepted in Harvard University and Stanford University. She said that her mother always ask her to find a solution and solve the problem in her childhood. So that, imagine. When the teacher in Indonesia practice what Maudy's mother did. The writer think Indonesia will have a golden generation and find the next Maudys in the future.

Based on the observation, this method is running well for them. They're so happy, they understand the lesson and they're active not only their body but also their mind. This is the curriculum waiting for and the objective of the national education.



Picture 1.6⁶⁰ : Discussion group in outdoor class

⁶⁰ Documentation

3) Syllabus

In here, i will only write down the syllabus that related with the research.

SYLLABUS⁶¹

School Name : MI Miftahul Huda

Grade / Semester : 6th / 1

First Theme : Save the Organism

Academic Year : 2018/2019

Basic Competency	Topic	Learning Activities
3.1, Membandingkan cara perkembangbiakan tumbuhan dan hewan 4.1, Menyajikan karya tentang perkembangbiakan tumbuhan	Mengamati tanaman dengan perkembangbiakan generatif dan manfaatnya.	<ul style="list-style-type: none"> - Mengamati gambar bagian-bagian reproduksi pada bunga dan membaca proses perkembangbiakan generatif. - Mengamati proses perkembangbiakan generatif dan manfaat dari perkembangbiakan generatif. - Mengamati bagian-bagian bunga sempurna - Mencari informasi dari berbagai sumber mengenai proses perkembangbiakan generatif tumbuhan. - Menulis manfaat dari perkembangbiakan generatif dan menyerahkannya pada guru. (<i>Critical Thinking and Problem Solving</i>).
3.1, Membandingkan cara perkembangbiakan tumbuhan dan hewan. 4.1, Menyajikan karya tentang	Mengamati tanaman di sekitar terkait perkembangbiakan vegetatif dan manfaatnya.	<ul style="list-style-type: none"> - Menginformasikan kepada siswa bahwa mereka akan belajar tentang perkembangbiakan tumbuhan secara vegetatif. - Memulai kegiatan

⁶¹ Documentation on December, 13th, 2018

perkembangbiakan tumbuhan		<p>dengan melakukan pengamatan gambar yang ada pada buku pelajaran dan melakukan diskusi setelahnya.</p> <ul style="list-style-type: none"> - Melakukan kegiatan pengamatan terhadap tanaman-tanaman di sekitar sekolah yang berkembang biak secara vegetatif. - Menuliskan tabel hasil pengamatan pada buku dan menuliskan manfaat perkembangbiakan tumbuhan secara vegetatif.
<p>3.1, Membandingkan cara perkembangbiakan tumbuhan dan hewan</p> <p>4.1, Menyajikan karya tentang perkembangbiakan tumbuhan.</p>	<p>Membandingkan perkembangbiakan hewan yang ada di negara ASEAN menggunakan diagram venn</p>	<ul style="list-style-type: none"> - Membaca teks tentang hewan-hewan yang hidup di negara ASEAN - Menulis hewan yang ada di sekitar dan mengisi diagram venn - Menuliskan manfaat perkembangbiakan hewan secara vivipar dan ovipar.
<p>3.1, Membandingkan cara perkembangbiakan tumbuhan dan hewan</p> <p>4.1, Menyajikan karya tentang perkembangbiakan tumbuhan</p>	<p>Menjelaskan perkembangbiakan secara ovipar, vivipar dan ovovivipar.</p>	<ul style="list-style-type: none"> - Menempel gambar tiga binatang dengan perkembangbiakan ovipar, vivipar dan ovovivipar pada papan tulis. - Mendiskusikan tiga binatang tersebut. (<i>Collaboration</i>). - Menginformasikan kepada siswa bahwa mereka ada belajar tentang perkembangbiakan hewan lainnya yaitu ovovivipar. - Menulis manfaat perkembangbiakan ovipar, vivipar dan ovovivipar.
<p>3.1, Membandingkan cara perkembangbiakan tumbuhan dan hewan</p>	<p>Mendiskusikan pelestarian hewan</p>	<ul style="list-style-type: none"> - Menyampaikan tentang hewan dan tumbuhan terkait perkembangbiakan, manfaat atau pelestariannya. - Mengamati gambar dan

4.1, Menyajikan karya tentang perkebangbiakan tumbuhan		<ul style="list-style-type: none"> - menjawab pertanyaan. - Menulis tentang pelestarian hewan yang ada di sekitar.
3.1, Membandingkan cara perkebangbiakan tumbuhan dan hewan	Membuat poster tentang melestarikan tumbuhan atau hewan	<ul style="list-style-type: none"> - Menyampaikan informasi akan membuat poster. - Mempelajari cara membuat poster terutama desain hewan atau tumbuhan. Tema poster tentang pelestarian hewan atau tumbuhan. (<i>Mandiri</i>)
4.1, Menyajikan karya tentang perkebangbiakan tumbuhan		<ul style="list-style-type: none"> - Mengkampanyekan pelestarian hewan atau tumbuhan (Makhluk hidup)

4) Lesson Plan

LESSON PLAN⁶²

School : MI Miftahul Huda

Grade / Semester : 6th / I

First Theme : Save the Organism

Sub-theme 3 : Let's Save the Organism

Meeting : 1

Time : 1 x 35 minutes (1 meeting)

A. Core Competency

1. Menerima dan menjalankan ajaran agama yang dianutnya
2. Memiliki perilaku jujur, disiplin, tanggung jawab, santun, peduli dan percaya diri dalam berinteraksi dengan keluarga, teman, guru dan tetangga.

⁶² Documentation on December, 14th, 2019

3. Memahami pengetahuan faktual dengan cara mengamati (mendengar, melihat, membaca) dan menanya berdasarkan rasa ingin tahu tentang dirinya, makhluk ciptaan Tuhan dan kegiatannya dan benda-benda yang dijumpainya di rumah dan di sekolah.

4. Menyajikan pengetahuan faktual dalam bahasa yang jelas, sistematis dan logis dalam karya yang estetis, dalam gerakan mencerminkan anak sehat, dan dalam tindakan yang mencerminkan perilaku anak beriman dan berakhlak mulia.

B. Basic Competency and Indicator

Bahasa Indonesia

Basic Competency :

3.1, Menyimpulkan informasi berdasarkan teks laporan hasil pengamatan yang didengar dan dibaca.

4.1, Menyajikan simpulan secara lisan dan tulis dari teks laporan hasil wawancara yang diperkuat oleh bukti.

Indicator

- Menemukan ide pokok dengan bantuan diagram
- Menulis kesimpulan

Ilmu Pengetahuan Alam (IPA)

Basic Competency :

3.1, Membandingkan cara perkembangbiakan hewan dan tumbuhan.

4.1, Menyajikan karya tentang perkembangbiakan tumbuhan.

Indicator

- Menjawab pertanyaan tentang pelestarian hewan

- Melaporkan cara melestarikan hewan di lingkungan

Ilmu Pengetahuan Sosial (IPS)

Basic Competency :

3.1, Mengidentifikasi karakteristik geografis dan kehidupan sosial budaya, ekonomi dan politik di wilayah ASEAN

4.1, Menyajikan hasil identifikasi karakteristik geografis dan kehidupan sosial budaya, ekonomi dan politik di wilayah ASEAN

Indicator

- Menyebutkan kehidupan politik dari dua negara terkait kondisi geografisnya.
- Menulis laporan tentang perbedaan kehidupan politik dari dua negara terkait kondisi geografisnya.

C. The Learning Objective

1. Setelah membaca teks laporan, siswa mampu menemukan ide pokok dengan bantuan diagram.
2. Setelah berdiskusi, siswa mampu menuliskan kesimpulan dengan rinci.
3. Setelah membaca teks, siswa mampu menjawab pertanyaan mengenai pelestarian hewan dengan tepat.
4. Setelah berdiskusi, siswa mampu melaporkan cara melestarikan hewan di lingkungan sekitar dengan tepat.
5. Setelah membaca teks tentang kehidupan politik di negara ASEAN, siswa mampu menyebutkan kehidupan politik dari dua negara terkait kondisi geografisnya dengan benar.

6. Setelah berdiskusi, siswa mampu menulis laporan tentang perbedaan politik dari dua negara terkait kondisi geografisnya dengan benar melalui diagram venn

D. Media and Learning Tool

1. Poster of Animal
2. Teacher book
3. Student book

E. Learning Approach and Method

Approach : Science Process Skill with Scientific

Method : Demonstration, Experiment, Discussion, QnA, Excercise and Speech

F. Learning Procedures

Activities	Description	Time
Introduction	<p>Opening</p> <ul style="list-style-type: none"> - Guru mengucapkan salam dan mengajak siswa berdoa. - Melakukan komunikasi tentang kehadiran siswa. - Meningkatkan motivasi dan perhatian siswa dengan bertepuk tangan dan menyanyikan lagu yang sesuai dengan mata pelajaran. - Menyiapkan fisik dan psikis peserta didik dengan kegiatan yang menyenangkan. - Guru mengulas kembali materi sebelumnya - Guru menyampaikan tujuan pembelajaran hari ini 	5 minutes

Main Activity	Let's Observe! <ul style="list-style-type: none"> - Guru mengajak siswa untuk menyampaikan pendapatnya mengenai perkembangbiakan tumbuhan dan hewan serta pelestariannya. - Siswa menuliskan masing-masing dua hal - Guru mendiskusikannya secara klasikal, apabila belum jelas siswa diperkenankan bertanya. - Siswa diminta untuk mengamati gambar dan menjawab pertanyaan. - Jawaban siswa didiskusikan secara klasikal - Guru memberi penguatan kepada siswa - Guru membuat kelompok, setiap kelompok terdiri dari 4 siswa. - Guru berkeliling membimbing jalannya diskusi untuk memastikan setiap anggota berpartisipasi aktif. - Guru mengajak setiap perwakilan kelompok untuk menyampaikan hasil diskusinya dan memberikan penguatan pada siswa. - Guru memberi kesempatan kepada setiap siswa untuk saling berkomentar dan menjawab pertanyaan. - Guru memberikan penguatan dan apresiasi terhadap siswa 	25 Minutes
Closing	<ul style="list-style-type: none"> - Guru memberikan refleksi kegiatan hari ini. - Guru dan siswa membuat kesimpulan - Guru memberikan motivasi dan tugas membaca kepada siswa. - Guru menutup kelas dengan salam dan doa. 	5 minutes

5) Module

As an information, the teacher make a module or the student worksheet during practice Science Proces Skill Approach. For the example as stated as follows :

1. TUJUAN

Tujuan dari praktikum ini adalah Siswa mampu membuat magnet dengan cara induksi.

2. ALAT DAN BAHAN

Magnet 1 buah

Besi 1 batang

Jarum 10 buah

Paku kecil 10 buah

Potongan Staples

3. PROSEDUR

Kegiatan 1

1. Peganglah magnet dan dekatkan dengan besi, apa yang terjadi?

Amati

!.....

2. Gosokkanlah besi pada magnet searah jarum jam. Kemudian tempelkan jarum-jarum kecil, potongan staples dan paku pada besi secara bergantian, amati, apa yang terjadi?.....

3. Jauhkan magnet dengan besi, amatilah yang terjadi !

.....

4. Kesimpulan dari percobaan 1 sampai 3 adalah?

.....

4. KESIMPULAN

1.

6) Assesment and Evaluation

Using science process skill approach doesn't mean the teacher only give a score for cognitive aspect. More of that, the teacher can give a mark in a various aspect, such as spirituality, morality, cognitive and skill. Before the writer explain it, she would like to describe both of them.

Assessment is classroom research to provide useful feedback for the improvement of teaching and learning. Assessment is feedback from the student to the instructor about the student's learning. Nevertheless, Evaluation uses methods and measures to judge student learning and understanding of the

material for purposes of grading and reporting. Evaluation is feedback from the instructor to the student about the student's learning.

So here, the explanation of assesment and evaluation that did by Mrs Mulyati. She said :

“during the learning process, i always observe my student to see their attitude, teamwork, skill or cognitive. Through science process skill is really easy for me give them a mark. When they practice good in writing, its include in assesment and i ask them about their observation and then give a mark, i save their creation to be the ‘portofolio’ and all of them is an assesment in 2013 curriculum”

Based on the interview, the writer compare it with the data from documentation and observation and its relevant. She also said about the evaluation for the student, she divided by two with the detail as stated as follows :

a) Student evaluation

1) Test

The tests are divided by two that is writing and speaking. Writing test it looks like middle test, daily test (after observation or activity) and so on. Sometimes, when Mrs Mulyati has a limited time, she applies speaking test directly to know how far the student understand about the lesson.

2) Non-test

In 2013 curriculum, there are KI1, KI2, KI3 who often use this test form. Through observation, Mrs Mulyati can marks all of the student attitude, creativity, skill, teamwork and many more. So, every meeting she can get 4 aspect of assesment especially when utilize this approach.

b) Teacher evaluation

Evaluation by the teacher after analyze the result of learning. When the student have a good mark, she decided that the method or approach is relevant for them. But, when lack of the student understand, she must evaluate again which one the best method, strategy, approach for the student.

The way to measure the mark of the student. She make a degree of the question. It looks like C1,C2,C3. Every degree have a different score. For example, C1 is 1, C2 is 2 and C3 is 3, the question is 10 and maximal score is 16. So, the formula is below :

$$\frac{\text{reach score}}{\text{maximum score}} \times 10$$

The researcher just amazed what she did, really the best teacher even there is an obstacles when teach the student.

7) Obstacle and Supporting Factors on implementing Science Process Skill

Approach

1) Obstacle Factors

- a) Today is industrial revolution 4.0 and we can deny it. So the school propose a laboratory toward Ministry of Religious Affairs.
- b) Science tools

2) Supporting Factors

- a) . the geographical area
- b). The field near the school
- c). Easy find the plant or animal
- d). Participation of the student

e). Creativity of the teacher

f). Support from the headmaster and society

for the last point is added by the researcher. Actually, the teacher always help each other. For example, when the school need to buy something for the student or school and the payment isn't enough. So, all of the teacher decided to help and fix the problem till the school get that things.

2. Learning Outcomes after Implementing the Science Process Skill Approach

Here, i would like to explain the learning outcomes after implementing the science process skills towards the student and the teacher.⁶³

a. The student

1) Have the several skills such Observation, Experiment and Communication that showed in their daily activities in the class. Such more confident to propose their idea when the teacher ask them caused of they understand well the topic through SPS approach that ensure the participation of the student

2) Increase the behavior of scientist of the students such they more careful to conclude something, systematic writing when report the observation, they try to do everything correctly.

b. The teacher

Science process skill approach is really helpfull to the teacher caused of this approach similar as the innovation of the teacher for

⁶³ Observation and interview with the teacher on December, 11th, 2018

providing the new ways in teaching. Moreover, implementing this approach it can be called as the new strategy to teach the student in millennial era⁶⁴.

3. The Implication of Science Process Skill Approach

Based on the interview and observation with Mrs Muliati and several student, the implications of science process skill approach are make the student easier to face national exam on April 2019, as the various of learning that can reported to accessor of the school, furthermore the school will develop it to became a model of learning but they still manage it in order to create to good education especially in islamic elementary school.

B. RESEARCH FINDINGS

1. Implementation of Science Process Skill Approach

Based on review of related literature, there are so many Science Process Skill. Surprisingly, there are several skills of the student that increase⁶⁵ after implementing the Science Process Skill Approach such Observation, Experiment and Communication.

Observation : the student usual practice and observe everything. the teacher ask them and train them to observe and ask them what they've observe about? How could it be? and etc. Actually, science is started by observation or observing something and cause of this approach, the student can observe and brave to give an argument as the result of thinking, we as an educator or practitioner must appreciate it.

⁶⁴ Interview with Miss Muliati on December 11th, 2018

⁶⁵ Increasing the student's science skills based on the teacher's and the researcher's observation

Experiment : this second skill show how the effort of the student to fix the assignment well, find the new and effective way and collaborate each other or as teamwork with their friend. They try to find the correct plants such (cassava, fungi, flower and etc), measure its hight, classyfung and etc. During this class, me as observer and the teacher couldn't agree more that this approach increase the student's science process skill.

Communication : based on the research and observation, the teacher said that this approach can increase the student's attitude such brave and confident and the result is the student can propose their idea, explore their opinion and tell about their activity in science class. Implementing this approach isn't only make them happy, enjoy the class and create the clever student. But also they can easily answer question correctly without open the book. Its amazing. They are surely know and brave so that they have a good communication.

for the other skills such Critical Thinking, Problem Solving and Decision Making was appear in this class. But, the teacher would like to increase it till she's sure that the student have it and do it.

2. Learning Outcomes after Implementing Science Process Skill Approach

a. The student's science skills that can reflect the behavior in daily activities

For example, the student in the sixth grade have a communication skills.

From this skill can increase the confident of the student to speak up their

reason idea toward the teacher and their friend. This situation is good especially for discussion class, for their personality and potential

b. Creativity of the Teacher

Its a blessed life for me as an educator candidate can meet with the most gorgeous teacher. I say gorgeous cause of the teacher in this school especially in the sixth grade prepare everything well before they teach their student.

For example : Mrs Mulyati uses a different method, media, strategy after being evaluate by herself or the other teacher. For electricity, the teacher use a poster to make sure the student understand about the lesson, make a song to make them easier to remember, make a table and classifying the plant and many more. I just amazed how could it be? Long time ago, may be there are a gap between city's education and village education. But now, cause of the creativity of the teacher, i think all of the student will get a similar teaching, lesson and many more. She said :

“ Yes Miss, i always try and evaluate my self my student. From its, i will know the relevant method or media or approach and then i apply it to the student, always like that, teach, evaluate (she said twice) including this SPS Approach”.

c. Relation between Society and Education

Honestly, live in a village or urban is different. The villager here is really supportive and half-heart to entrust their field used by the student to observe their plant. Without the support from the society, i think its difficult for them to find the fact or the real thing in the class in a real life.

d. Islamic Culture Integrated with Science

Madrasah is from arabic language or its called as ‘islamic elementary school’ and its usual for it to integrate every learning process with islam. For example : the student have a routine activities everyday such us recite Asmaul Husna, Sholat Dhuha and so on. They did it well. Meanwhile the science class, the teacher ask them to dicpiline and measure well and then support them with the story about dicipline from Umar Bin Khattab and many more.

e. Geographical Location

Based on the ayat above, That is *Surah Ali Imran*, chapter 190-191 :

إِنَّ فِي خَلْقِ السَّمَاوَاتِ وَالْأَرْضِ وَاخْتِلَافِ اللَّيْلِ وَالنَّهَارِ لآيَاتٍ لِّأُولِي الْأَلْبَابِ
الَّذِينَ يَذْكُرُونَ اللَّهَ قِيَامًا وَقُعُودًا وَعَلَىٰ جُنُوبِهِمْ وَيَتَفَكَّرُونَ فِي خَلْقِ السَّمَاوَاتِ
وَالْأَرْضِ رَبَّنَا مَا خَلَقْتَ هَذَا بَاطِلًا سُبْحَانَكَ فَقِنَا عَذَابَ النَّارِ

The meaning is “ Indeed,in the process of creating the sky and the earth and turnover the day and the night, there are the sign for intelligent people(190). Those Who always remember Allah (the God) while standing, sitting or (lying) on their sides and give thought to the creation of the sky and the earth, [saying] “**Our Lord, You didn’t create this aimlessly**; exalted are You; then protect us from the punishment of the fire(191).”

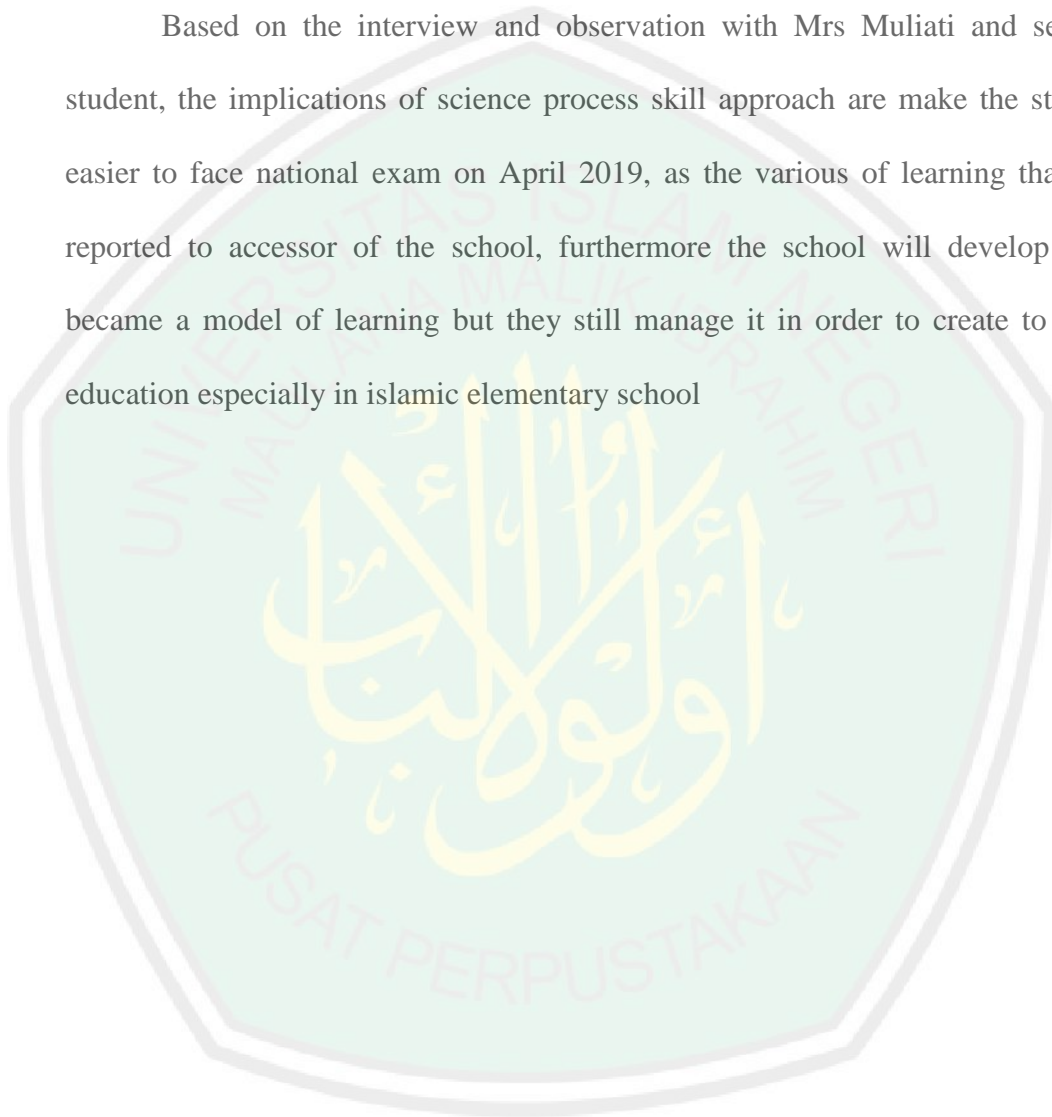
Did you know the bold one? “You didn’t create this aimlessly”. Do you get the point here? Alqur’an said like that and that true, there is a silverline in everything and i found it in MI Miftahul Huda.

Based on the above explanation above, the location of the school is near the mountain, so many hill, small like, fresh air, so many field, river and many more and thats factor can help the teacher to explain about Science. For example : Classyfing the plant, She asks them to go to the field near the school to observe, to do an experiment, to find the right one about the plant. Moreover, cause of that

geographical, it is the best situation for doing a learning activity, Cause why, the student will more focus than in noisy situation, enjoy the lesson and so on.

3. The Implication of Science Process Skill

Based on the interview and observation with Mrs Muliati and several student, the implications of science process skill approach are make the student easier to face national exam on April 2019, as the various of learning that can reported to accessor of the school, furthermore the school will develop it to became a model of learning but they still manage it in order to create to good education especially in islamic elementary school



CHAPTER V

DISCUSSION

A. The Implementation of 'Science Process Skill Approach'

Teacher more understand what the student need, mix and match the various method, strategy or approach just to make sure their student understand about the lesson. Choosing the approach is from evaluating the previous approach. When it isn't relevant, the teacher try to find the correct approach for the student.

Conversing about the reason practicing this approach. The writer is agree but the writer need to give an addition. Eventhough science can practice at class, exactly the student also can practice it at home, cause our daily activities it isn't far from science process, *Science process* occurs naturally, spontaneously in our minds. By logically breaking down the steps in our thinking, we can use *science process* to find out how to answer our questions about how the world works.⁶⁶

Science process is not just useful in science, but in any situation that requires critical thinking. Sometimes, we integrated between science, religion or technology cause of it can increase the knowledge of the student. Science process skills include observing qualities, measuring quantities, sorting/classifying, inferring, predicting, experimenting, and

⁶⁶ Remziye Ergul, Op.cit,

communicating⁶⁷. Therefore, its really good reason of Mrs Mulyati practice this approach.

Discussing about the geographical area or the environment as the reason to applied the science process skill approach is related with some literature, that is the learning environment must respond to and respect a variety of learners' needs and abilities and be conducive to the incorporation of a range of strategies that encourage and support learning.

Such an environment, thats:

1. accommodates diversity in students' backgrounds, learning styles, personal assets and abilities
2. fosters the involvement of students in meaningful learning activities
3. supports the effective use of a wide range of resources, including technology and the media
4. allows for active, interactive and collaborative learning
5. is respectful of and fosters respect for divergent views, values and beliefs
6. supports research and inquiry, evidence-based decision making, and planning and evaluation
7. encourages and fosters learner responsibility and accountability for demonstrating stated learning outcomes.⁶⁸

⁶⁷ Hadi Nur, *Integrating Science, Technology and Religion – A Universiti Teknologi Malaysia Perspective*, *Ibnu Sina Institute for Fundamental Science Studies Universiti Teknologi Malaysia, 81310 UTM Skudai, Johor, Malaysia*
 URL: <http://www.ibnusina.utm.my/~hadi>

From the explanation above, we know that the reason applied an approach, method, strategy or so on is crucial. It means that when the teacher applied the wrong approach, its impossible she/he can reach the objective of learning process. Furthermore, the teacher won't increase or improve the students, it can be their spirituality, morality, cognitive or skill.

Moreover, Everything will be doing well if there are collaboration in every aspect. Even in education, reach the objective of learning process there are a collaboration between the student and the teacher. We've been discussing about it in previous chapter. But, here the writer would like to explain about it clearly, so that when implementing an approach, strategy, method and so on, the educator will pass the learning process.

Here, the role of the teacher toward the learning process. Consideration needs to be given to the setup and organization of the physical space to foster individual and small group work, engage in some activities anonymously, display ongoing projects and finished work, accommodate learning centres and encourage creativity.

The teacher plays a critical role in structuring and managing an effective and efficient learning environment. The primary role of the teacher is to guide and facilitate learning and to assist students with the acquisition of the skills and abilities required to demonstrate outcomes. In contributing to the learning process, the teacher can ;

⁶⁸*Teaching, Learning, Assesment and Evaluation, Grade 9, Health Curriculum Guided, P.7*

1. assist students in the attainment of skills and abilities that enable them to take responsibility for and make reasoned decisions about food as it relates to health
2. provide direction and encouragement to students as they engage in individual and collaborative learning activities
3. act as a mentor and as a resource person as students make decisions about their own learning and the kinds of activities that will
4. assist them in that process
5. recognize and plan for diversity in students' backgrounds, learning styles, personal assets and abilities
6. engage students' awareness of issues related to nutrition and assist them to build on this awareness.
7. help students establish and negotiate codes of conduct regarding individual and group behaviours that promote learning
8. help students set limits and establish parameters for individual, class and lab behavior
9. provide opportunities to integrate knowledge, skills, attitudes and behaviours related to nutrition and health and to life-long learning
10. record and report on student progress.⁶⁹

Meanwhile, the student plays a critical role in contributing to an effective and efficient learning environment and to the achievement of learning

⁶⁹ Ibid, *Teaching, Learning, Assessment and Evaluation*. P. 9

outcomes. The primary role of the student is to take responsibility for learning and to demonstrate achievement of curriculum outcomes. Students can⁷⁰ ;

1. strive to acquire skills and abilities that enable them to take responsibility for and make reasoned decisions
2. build on knowledge and awareness of issues related to personal and family nutrition
3. engage in learning activities that support personal learning styles and incorporate personal assets and abilities
4. respect and contribute to a learning environment that supports diverse values, beliefs and opinions
5. engage in individual and collaborative learning activities aimed at achieving course outcomes
6. work with others to establish and employ codes of conduct regarding individual and group behaviours that promote learning
7. respect the set limits and established parameters for individual and class, and lab behavior
8. engage in opportunities to integrate knowledge, skills, attitudes and behaviours related to personal and family nutrition
9. take responsibility for directing their own learning, completing tasks and monitoring progress
10. evaluate their progress and develop new strategies and plans for continuous learning and improvement

⁷⁰ Ibid, *Teaching, Learning, Assesment and Evauation*. P. 12

Furthermore, when implementing an approach, there are a planning, implementing and evaluating. In previous chapter, the writer have been explaining about it. But, there are some addition to make sure the implementation is doing well.

1. Planning

As usual, the teacher must plan everything that will applied in the class. Similar with when we will cook or make a food, we must prepare the tool, the ingredients, the procedure and practice that till we serve that food. In education, the teacher must plan what will be applied at class. What the topic about? Stratetgy? Approach ? and many more and the teacher make sure that she/he applies the correct one.

Based on the observation⁷¹, teacher always make the student interest in the first time of learning, there are something new everyday, may be a song, clap, activity, media or etc. In Teaching Basic Competency program, Dr. M. Walid, MA said :

“ first time go to the class, you must take the interest of the student. Even you just bring a paper or plastics, they will ask themselves what we will be doing today?, is there any something new and etc. Its better than you just bring your usual book or laptop.”⁷²

Some of literature show that there are Goal Setting, Planning and Organization. Discussion of goal setting helps students realize the

⁷¹ Observation On December 12th, 2018

⁷² Learning Process during Management Course with Dr. M. Walid MA

importance of setting goals that are realistic and attainable. Goals, the articulation of dreams, are most effectively met with planning and organization. This involves applying skills related to the management of resources including time and finances, personal attributes and capabilities, and social supports. Creating plans and time lines for the acquisition of goals keeps them in view and more likely to be achieved. Students will be encouraged throughout the course to assess, re-assess and modify plans on a regular basis.

In Educational Management⁷³, there are four step that must followed by whoever practice its. There are Planning, Organizing, Actuating and Controlling. Furthermore, planning the learning process is included in Class Management. How the teacher plan the learning process, organize it, implement till evaluate the student.

Therefore, planning is important in education. Especially when applied science process skill approach. There are so many preparation such as student worksheet, lesson plan or just a simple plan. Actually, lesson plan depends on the teacher. But, in Indonesia there are some requirement to arrange a lesson plan. So, every teacher must follow it.

2. Implementing

When implementing science process skill, is the continue step after planning. Based on the observation. The teacher implement this

⁷³ Yulinar Sofiyati, *Implementasi Prinsip-prinsip Manajemen Pendidikan dalam Manajemen Persekolahan*, Jurnal Tarbawi Volume 1 No 3 September 2012

approach with a lesson plan and the student's worksheet. Before doing an experiment or observation, the teacher explain all the rule, what the student have to do and guide them during the learning process. Whats the teacher did is relevant with the role of the teacher in a previous explanation. During the learning process, some of the student ask the teacher, sometimes the teacher give the other student to answer the question. This is the way of the teacher for implementing the student science process skill. Ensure participation of the student and try to make them study by themselves, fix and solve the problem well till they understand and get the point of the topic⁷⁴.

Discussing about Science Process Skill, there are several skill that focused in this school. There are Observation, Experiment and Communication, for the other skill such Critical Thinking, Problem Solving and Decision Making was appeared. But, the teacher still increase it and make sure that the student have it and do it. By implement the Science Process Skill Approach and the student have increased their three skills and the other was appear, it can be called that this approach is meaningful for the student and the teacher have succeeded implement it and teach the student.

Meanwhile, generic learning skills such as the communication skills of listening, speaking, reading and writing are critical to success in this course and in life. Thinking skills such as accessing and

⁷⁴ www.longwood.edu diakses pada hari Selasa 19 Februari 2019 pukul 11.47 WIB

applying knowledge, problem solving and evaluating are key to addressing the decisions that are made every day. Students will be engaged in the assessment, promotion and enhancement of their personal development. This requires critical reasoning regarding decisions that impact their lives. An integral part of a learning process intended to lead to behavioural change is the ability to solve problems and to generate reasonable approaches and strategies in addressing challenging situations or circumstances. The result should be evidence based decision making and its application to personal growth and development.⁷⁵

Based on the observation and the previous chapter, the goal for implementing the student science process skill, the teacher try to create a golden generation that have many skill relevant with the spirituality, knowledge and society. Imagine, when we have a student that dicipline, active, multitalented, diligent, smart, careful and etc they will easy to face everything in their life, in society in education and so on. Even the teacher try from a small thing with the precious goal, i think its good and we must appreciate it. The writer have been remembering a quote that is “Big Journeys Begin with Small Steps” its impossible for everyone who didn't start everything to get the great thing. Even in education, our national objective of education is to create and prepare the student that have bla bla bla.. its nonsense when

⁷⁵ Ibid, *Teaching, Learning, Assesment and Evaluation*. P.10

didn't start by the small step. We would like have a kid that great behavior, intelligence, smart, diligent and its possible when the teacher everyday train them to be like that, one of the way is implementing this science process skill approach.

3. Evaluating

As similar with my previous explanation. Evaluation did after being analyzed the result of learning process. When the teacher consider the approach is going well she will be appied it again. On the contrary, when the approach, strategy, or method isn't effective the teacher will checked and change it till find the best one. Change these approach, strategy or method isn't easy if the teacher didn't know the background of the student, the enviroment or many more. But, its so easy step to mix and match an approach when the teacher understand well the student, and whats Mrs Mulyati did is relevant, further she understand well the evaluation and the assesment in 2013 curriculum⁷⁶. The writer had done an Learning Evaluation course in the 3rd semester and now i know the real assesment appropriate with the course that i did.⁷⁷

In here, the writer just would like to give an addition about Evaluation and Assesment. Classroom Assessment is the observation of students in the process of learning, the collection of frequent feedback on students' learning, and the design of modest classroom

⁷⁶ Interview with Mrs Muliati on December 11th 2018

⁷⁷ Permendikbud No 23 tahun 2016 tentang Standar Penilaian Pendidikan

experiments that provide information on how students learn and how students respond to particular teaching approaches.⁷⁸

Classroom assessment helps individual college teachers obtain useful feedback on what, how much, and how well their students are learning. Faculty can then use this information to refocus their teaching to help students make their learning more efficient and more effective. Purpose of classroom assessment: to improve student learning.

There are the characteristics of classroom assessment⁷⁹:

- a. Learner-Centered: Classroom Assessment focuses the primary attention of teachers and students on observing and improving learning, rather than on observing and improving teaching.
- b. Teacher-Directed: Classroom Assessment respects the autonomy, academic freedom, and professional judgment of college school. The individual teacher decides what to assess, how to assess, and how to respond to the information gained through the assessment.
- c. Mutually Beneficial: Classroom Assessment requires the active participation of students and school. When students participate more actively, and feel more confident that they can succeed, they are likely to do better in their course

⁷⁸ Opcit, Arrofa Accesta

⁷⁹ Robert Rotenberg, *The Art and Craft of College Teaching: A Guide for New Professors and Graduate Students*, Active Learning Books, Chicago, IL, 2005

work. As teachers work closely with students to assess learning, they improve their teaching skills and gain new insights.

- d. **Formative: Classroom Assessment** is formative rather than summative. Summative assessments include tests and other graded evaluations. Classroom Assessments, on the other hand, are almost never graded and are almost always anonymous. Their aim is to provide school with information on what, how much, and how well students are learning.
- e. **Context-Specific: Classroom Assessments** need to respond to the particular needs and characteristics of the teachers, students, and disciplines to which they are applied. Being Context-Specific means: what works in one class will not necessarily work in another.
- f. **Ongoing: Classroom Assessment** is an ongoing process, perhaps best thought of as the creation and maintenance of a classroom "feedback loop." Changes are made based on the classroom research results and student feedback.
- g. **Builds on Good Teaching Practices:** Most college teachers already collect some feedback on their student' learning and use that feedback to inform their teaching. Classroom Assessment is an attempt to build on existing

good practice by making it more systematic, more flexible, and more effective.

Meanwhile, the other literature talks about the several ways to evaluate or assess the students such as Classroom Assessment Techniques (CAT)⁸⁰ with the detail as stated as follows:

- a. Climate Surveys – Feedback of teaching/learning methods used, text, pace, format of class, etc.
- b. Muddiest Point - Discussion Board or individual student input for what is still unclear
- c. Minute Paper – What was most useful that you learned? What questions remain?
- d. PreTest and PostTest – Questions to show overview of course content; used for first day to show depth and breadth of topics covered and last day to show what learning has occurred
- e. Embedded questions – Questions embedded within the actual graded tests
- f. Reflection Paper – Student critical thought feedback over a learning unit, a learning experience, a field experience, etc.
- g. Competency Checklists – Skills and competencies checklist of ability
- h. Group Informal Feedback on Teaching (GIFT) – Anonymous survey asking for 1-2 instructor actions that help students learn and 1-2 instructor actions that hinder or interfere with learning

⁸⁰Thomas A. Angelo and K. Patricia Cross, Jossey-Bass *Classroom Assessment Techniques: A Handbook for College Teachers*, 2nd Edition, 1993

- i. Self-Assessment Survey or Posting
- j. Student Portfolio of Work – compilation of work, including drafts, over time to show growth and development of skills and knowledge
- k. Classroom Feedback – Takes many formats; analyzing papers, tests for item analysis for research
- l. Analysis of Test Items – Certain test questions are used for school feedback on concepts learned. Making and documenting teaching improvements, enhancements, revisions, and/or timing based on your assessment results and findings are a MUST. This is the Feedback Loop to improve teaching and learning that is Critical.

Evaluation: Purpose is to “grade” or “appraise” or “judge” student.⁸¹

- 1) Quizzes
- 2) Exams
- 3) Worksheets
- 4) Clinical Evaluations
- 5) Papers
- 6) Projects: Group and Individual
- 7) Skills and Competencies/Practical Exam
- 8) Graded Assignments of all formats

Actually, there are many resources or literature that discuss about assessment and evaluation and the writer prefer choose this one.

⁸¹*An Assessment Framework For the Community College: Measuring Student Learning and Achievement as a Means of Demonstrating Institutional Effectiveness*, The League for Innovation and Question. Mark, 2004.

<http://www.league.org/publication/whitepapers/0804.html>

Meanwhile, when implement something , it usual that we face the supporting factor and the obstacles. Discussing about these sub-topics its looks like we talk about a nature law. There are happy and sad, earth and sky, easy and difficult and so on. The difference is how we face that, improve and manage. There are so much problem in education. But, in especially in science process skill, maybe just about the tools that the school have been proposing to the ministry.

For supporting factor, the writer would like to give an underline word. That is, it doesn't matter how hard or difficult the situation as long as Indonesia has a creative teacher, the education still going well. Ya, and of course the writer find it in MI Miftahul Huda, especially in the sixth grade. We must see the good in everything, when we just focus on the obstacles it is impossible we can move and reach the higher things.

B. Learning Outcomes after Implementing the Science Process Skill Approach

Based on the observation⁸², there are the learning outcomes after implementing the Science Process Skill Approach such the student's science skills that can applied in their daily activities, the creativity of the teacher and so on. This ways of the teacher in teaching process it can called as innovative of learning. Moreover, the researcher analyzed that this learning outcomes is relevant with the lesson plan, especially with the vision and mission of the school.

⁸² Observation in MI Miftahul Huda, December 2018

As an addition, For implementing the innovation in classroom, Keller (1983) have composed the principles of motivation that can be implemented on learning process. The principles are said by ARCS model namely; Attention, Relevance, Confidence, and Satisfaction. These principles must be understood by the teachers in order to be able to produce the teaching learning process to be interesting, meaningful, and giving challenges for students.

Beside that, the teacher also can do (i) create understanding & build rapport, (ii) challenge student to be analytical & creative, (iii) engage student with technology, (iv) create opportunities for active learning and also develop opportunities for experiential learning such as service learning and community field experiences (Tershia Pinder-Grover, 2016).⁸³ All of the effort of the teacher above is the ways to reach the goal of Science Process Skill Approach that can called as learning outcomes.

According to Kendal, Robert and friends⁸⁴ the learning outcomes or product of the learning process through the several activities or the process of learning till the teacher can make a conclusion in the end of the class that the skill or something that appear is the product or outcomes. For example, through Science Process Skill approach that implemented in the several topic, in the end there are several skills that appear such observation, experiment and communication. Actually this skill create the behavior of the student such more careful, brave, confident and so on.⁸⁵

⁸³ Op.cit, Nur Ali

⁸⁴ Op.Cit, Kendal, John S Marzano Robert, P. 54

⁸⁵ Based on the observation and the interview with the teacher, December 2018

Nevertheless, the learning outcomes of the science process skill approach is divided into four groups such Spirituality, Morality, Cognitive and Skills⁸⁶. The explanation as stated as follows :

Aspect	Learning Outcomes
Spirituality	Honest, patient,
Morality	Carefull, dicipline, brave, confident, teamwork
Cognitive	Easier understand the topics, Creativity of the student, Create their own knowledge, ⁸⁷
Skills	Observation, Experiment and Communication

Moreover for cognitive aspect, as the learning outcomes, there are knowledge utilization processes, this process require students to apply or use knowledge in specific situations. There are four knowledge utilization processes: 1) decision making, (2) problem solving, (3) experimenting, and (4) investigating⁸⁸. For example, in creating manual magnet in magnet topic. The student make a decision which one the best ways to make, they will practice trial-error method till find the best one and it called as problem solving. Through all the process it can be called as experiment after that they will investigate how long when use the magnet (A, B) that have different size and so on. Surprisingly it called as science process skill.

Meanwhile, in science process skill approach. The teacher isn't focus on the result. But, on the process it self. How the student do the assignment, the teamwork, the carefull, their attitude, their observation report and soon is being

⁸⁶ Interview with Mrs Muliati, December, 12th, 2018 at 19,02 pm at her home and has been compare with the observation result by the researcher

⁸⁷ Op.Cit, Moh Yamin

⁸⁸ Op.Cit, Kendall, John s Robert, P 92

observed by the teacher during the learning process⁸⁹. Based on the previous⁹⁰, Innovative teaching such implementing Science Process Skill Approach has been viewed as a constructivist, social-constructivist, and student-centered process where by students should be active learners in a supportive environment, engaging in authentic and relatable problem-solving activities to stimulate learning (Brandon, 2004).

Therefore the activity of learning more seen from the process than the achievement of knowledge. This process consist of constructing and restructuring of knowledge and skills (schemata) within the individual in a complex network of increasing conceptual consistency. Therefore, the activities of innovative teaching includes using a new strategies, a new curriculum and an actual learning materials for the benefit of students. So the teachers can utilize gadget and internet facilities to get students responses⁹¹. But, in MI Miftahul Huda, the teacher utilize the nature resources to providing the new learning strategies to increase the student's science skills through Science Process Skill.

C. The Implication of Science Process Skill Approach

Due to the researcher motto, there is a silverline in everything as long as we can see the good in everything. Beside to increase the student's skills that can reflect the behavior in their daily activities. The implication on implementing Science Process Skill Approach is to help the student face the final exam next year, make the student easier to understand the topic or lesson, as one of the

⁸⁹ Observation in outdoor class, November, 8th, 2018

⁹⁰ Op.Cit, Nur Ali P 75

⁹¹ Ibid, Nur Ali

teacher's creativity to provide the new ways in teaching such in science, as the innovation of learning in this 21st century even lack of facilities.

Dr. Nur Ali in his paper⁹² said that innovation teaching will be success whether it is conducted based on the theory or the empirical data. According to Peter M. Druker in Tilaar that doing innovation must be based on the principles of teaching innovation as below;

a) Innovative is conceptual. It means that it is began from the willing to create a new product, new ideas that is related and accepted by communities. Therefore the actor of innovation must belong to a perception and based on the need assessment.

b) Innovation must be simple, focus and related to the need and the existing values

c) Innovation must be began from simple ideas and simple activities that related to the real need. It will also have implication to the next generation (Tilaar, 1998:364)

Another implication is when students engage in experiments during science lessons, they sharpen their process skills and acquire scientific skills which impact on the overall achievement in science (cognitive aspect). Meanwhile, through implementing science process skills, it can ensure the participation of the student cause of science as a practical subject that provides student with an opportunity to interact with science process skills that can be used to solve problems in everyday life and contribute to national

⁹² Ibid, Nur Ali

development. Science process skills are activities, which students carry out in scientific investigations to enable the acquisition of scientific knowledge and skills. The importance of teaching science process skills is to allow students to describe objects and events, ask questions, construct explanations, test those explanations against current scientific knowledge and communicate their ideas to others (Opara, 2011).⁹³

Therefore, based on the interview⁹⁴, the primary implication of science process skill approach is to increase the student's science and to help the student face the final exam next year. Further, the secondary implications are as the form of the teacher's creativity, integration between science and religion that can reflect the spiritual skill through science process skills.

⁹³ Hesbon E Bungu and friends, *The Effect of Science Process Skills Teaching Approach on Secondary School Students' Achievement in Chemistry in Nyando District, Kenya*, Journal of Educational and Social Research MCSER Publishing, Rome-Italy, Vol. 4 No.6 September 2014

⁹⁴ Interview with Mrs Muliati, December 11th, 2018

CHAPTER VI

CLOSING

A. CONCLUSION

The conclusion of the research are :

1. Implementing Science Process Skill Approach through there are planning, implementing and evaluating. The focuses skill in implementing SPS here are : Observation, Experiment, and Communication.
2. The learning outcomes after implementing science process skill are related with 2013 curriculum that divided into four groups such Spirituality, Morality, Cognitive and Skill.
3. The implications of science process skill approach are divided into two groups, the primary implication of science process skill approach is to increase the student's science and to help the student face the final exam next year. Further, the secondary implications are as the form of the teacher's creativity, integration between science and religion that can reflect the spiritual skill through science process skills

B. SUGGESTION

This suggestion is related with the research, that are :

1. For the teacher, you should practice all science topic through science process skill approach, because based on the observation there are a good collaboration between the student and the teacher during the learning process and the student did the assignment well.

2. For the student, explore your potential, talent in interest especially through science process skills.
3. For the headmaster, in my opinion you should give more attention and support towards the student that has a good science skills and knowledge to join science competition.
4. For the reader, the writer always waiting for the suggestion and constructive critics to make sure this thesis is perfect.



REFERENCES

- Ali, Nur, *INNOVATIVE TEACHING IN MILLENNIAL ERA*, Proceeding International Conference of Islamic Education: "Information Technology And Media: Challenges And Opportunities" Faculty of Tarbiyah and Teaching Training Universitas Islam Negeri Maulana Malik Ibrahim Malang November 23-24, 2018 P-ISSN 2477-3638 / E-ISSN 2613-9804 Volume: 3, 2018
- Acesta, Arrofa, *Penerapan Pendekatan Keterampilan Proses Sains Untuk Meningkatkan Hasil Belajar Siswa Dalam Pembelajaran IPA* Oleh : Arrofa Acesta Dosen PGSD FKIP Universitas Kuningan
- Afolabi, Folashade, ed, 2010, *Analysis of Science Process Skills in West African Senior Secondary School Certificate Physics Practical Examinations in Nigeria*, American-Eurasian Journal of Scientific Research, University of Ibadan, Ibadan, Oyo State, Nigeria.
- Atkin, J Myron and Coffey, Janet E, 2003, *Everyday Assesment in the Science Classroom*, (Arlington, Virginia : NSTA Press,)
- An Assessment Framework For the Community College: Measuring Student Learning and Achievement as a Means of Demonstrating Institutional Effectiveness* , *The League for Innovation and Question*. Mark, 2004. <http://www.league.org/publication/whitepapers/0804.html>
- Bin Ibrahim, Abdurrahman dkk, *Al Arabiyah Bayna Yadayk*, (Future Media Gate)
- Bungu, E, Hesbon, 2014 and friends, *The Effect of Science Process Skills Teaching Approach on Secondary School Students' Achievement in Chemistry in Nyando District, Kenya*, Journal of Educational and Social Research MCSER Publishing, Rome-Italy, Vol. 4 No.6
- Ergül, Remziye, ed, 2011, *The Effects Of Inquiry-Based Science Teaching On Elementary School Students' Science Process Skills And Science Attitudes*, Bulgarian Journal of Science and Education Policy (BJSEP), Uludag University, Turkey. Volume 5, Number 1.
- Fatonah, Siti and Zuhdan, 2014, *Pembelajaran Sains*, (Yogyakarta: Ombak,)
- Febriana, Yuliani, 2016, *Penerapan Pendekatan Saintifik Untuk Meningkatkan Keterampilan Proses Sains Di Kelas IV SD*, Jurnal Pendidikan Guru Sekolah Dasar, Universitas Pendidikan Indonesia, Vol 1, No, 1 Desember.
- Harsono, *Self Directed Learning*, Universitas Gajah Mada
- Haryanto, *Teori yang Melandasi Pembelajaran Kostruktivistik*, Jurnal, Universitas Negeri Yogyakarta
- Marzano, Robert J and Kendall, John S, 2007, *The New Taxonomy of Educational Objectives*, (Oaks, California: Corwin Press)

Murni,Wahid,2017, *Pemaparan Metode Penelitian Kualitatif*, (Malang,)

Robert Rotenberg 2005 ,*The Art and Craft of College Teaching: A Guide for New Professors and Graduate Students* , *Active Learning Books*, Chicago, IL,

Rahardjo,Mudjia,2017, *Studi Kasus Dalam Penelitian Kualitatif: Konsep dan Prosedurnya*, (Malang : UIN Malang,)

Rohman,Minanur,2014,*Teori Kognitif Dalam AlQur'an*, Jurnal Pustaka, Universitas Brawijaya, Juli-Desember

Setiawan,Ari, *Teori Belajar Kognitif*, (aristwn.staff.iainsalatiga.ac.id, diakses 23 September 2018 jam 20.24 wib)

Teaching, Learning, Assesment and Evaluation, Grade 9, Health Curriculum Guided

Thomas A. Angelo and K. Patricia Cross, Jossey-Bass 1993,*Classroom Assessment Techniques: A Handbook for College Teachers*, 2nd Edition
Wangsa,Teguh 2011, *Filsafat Pendidikan*, (Jakarta : Arruz Media,)

Widowati,Asri, 2008, *Diktat Pendidikan Sains*, (Yogyakarta : Univ Yogyakarta,)

Yamin, Moh 2015, *Teori dan Metode Pembelajaran*, (Malang: Madani)

Yin,Robert K,2011, *Qualitative Research From Start To Finish*, (New York : TheGuilford Press)



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Nomor : 2536 /Un.03.1/TL.00.1/10/2018
Sifat : Penting
Lampiran : -
Hal : Izin Penelitian

19 Oktober 2018

Kepada
Yth. Kepala MI Miftahul Huda Ngadireso Poncokusumo Malang
di
Malang

Assalamu'alaikum Wr. Wb.

Dengan hormat, dalam rangka menyelesaikan tugas akhir berupa penyusunan skripsi mahasiswa Fakultas Ilmu Tarbiyah dan Keguruan (FITK) Universitas Islam Negeri Maulana Malik Ibrahim Malang, kami mohon dengan hormat agar mahasiswa berikut:

Nama : Ida Fitri Anggarini
NIM : 15140156
Jurusan : Pendidikan Guru Madrasah Ibtidaiyah (PGMI)
Semester - Tahun Akademik : Ganjil - 2018/2019
Judul Skripsi : **The Process of Teaching Science for The Sixth Grade in Malang (The Case Study at MI Miftahul Huda Ngadireso Poncokusumo Malang)**
Lama Penelitian : **Oktober 2018** sampai dengan **Desember 2018**
(3 bulan)

diberi izin untuk melakukan penelitian di lembaga/instansi yang menjadi wewenang Bapak/Ibu.

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

Wassalamu'alaikum Wr. Wb.

Dekan,

Dr. H. Agus Maimun, M.Pd.
NIP. 19650817 199803 1 003

Tembusan :

1. Yth. Ketua Jurusan PGMI
2. Arsip



LEMBAGA PENDIDIKAN MA'ARIF NU
MADRASAH IBTIDAIYAH "MIFTAHUL HUDA"

Terakreditasi " B "

Nomor : B / Kw.13.4 / MI / 2188 / 2006

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SURAT KETERANGAN

Nomor: 213.421 / LPM.MI / SK / V / 2019

Kepala Madrasah Ibtidaiyah Miftahul Huda Ngadireso Poncokusumo Malang menerangkan bahwa,

No	Nama	Jurusan/Program
1	Ida Fitri Anggarini	Pendidikan Guru Madrasah Ibtidaiyah (PGMI)

adalah Mahasiswa UIN Maulana Malik Ibrahim Malang, Fakultas Ilmu Tarbiyah dan Keguruan yang telah melaksanakan penelitian tentang "Implementasi Pendekatan Keterampilan Proses Sains untuk Meningkatkan Keterampilan Sains Siswa" di MI Miftahul Huda Ngadireso Poncokusumo Malang pada bulan Oktober – Desember 2018.

Demikian surat keterangan ini untuk dipergunakan sebagaimana mestinya.

Malang, 06 Mei 2019

Kepala Madrasah


Matqosim, S.Pd.I
NIP.....

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Name : Ida Fitri Anggarini
Place of Birth : Malang
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Interview dengan Bu Mulyati, S.Pd. I

1. Ibu, mhn maaf, mhn diceritakan apa alasan Ibu menerapkan pendekatan Ketrampilan Proses Sains ini?
2. Bagaimana cara-cara Ibu, untuk menerapkan pendekatan ini?
3. Adakah factor pendukung dan penghambat selama penerapan pendekatan KPS ini?
4. Bagaimana cara Ibu menilai dan mengevaluasi siswa-siswi kelas 6?

Interview dengan Kepala Sekolah, Bapak Matqosim, S.Pd.I

1. Pak, mhn maaf, menurut Bapak, jika kelas 6 belajarnya diluar kelas kira-kira bagus apa tidak Pak?
2. Wali kelas 6 menerapkan Pendekatan KPS, Seperti yg Bapak lihat hari ini, menurut pandangan Bapak bagaimana?

Interview dengan siswa.

1. Bagaimana rasanya belajar didalam kelas dengan diluar kelas?
2. Apakah kamu lebih memahami materi jika dipraktekkan secara langsung?
3. Bagaimana rasanya bekerja dengan teman-teman sekelompok?
4. Apakah kamu suka belajar dengan praktik, mengamati, berkomunikasi seperti sekarang ini?
5. Hal apa yang kamu dapatkan jika belajar semacam ini?

SYLLABUS

School Name : MI Miftahul Huda

Grade / Semester : 6th / 1

First Theme : Save the Organism

Academic Year : 2018/2019

Basic Competency	Topic	Learning Activities
3.1, Membandingkan cara perkembangbiakan tumbuhan dan hewan 4.1, Menyajikan karya tentang perkembangbiakan tumbuhan	Mengamati tanaman dengan perkembangbiakan generatif dan manfaatnya.	- Mengamati gambar bagian-bagian reproduksi pada bunga dan membaca proses perkembangbiakan generatif. - Mengamati proses perkembangbiakan generatif dan manfaat dari perkembangbiakan generatif. - Mengamati bagian- bagian bunga sempurna - Mencari informasi dari berbagai sumber mengenai proses perkembangbiakan

		<p>generatif tumbuhan.</p> <ul style="list-style-type: none"> - Menulis manfaat dari perkembangbiakan generatif dan menyerahkannya pada guru. (<i>Critical Thinking and Problem Solving</i>).
<p>3.1, Membandingkan cara perkembangbiakan tumbuhan dan hewan.</p> <p>4.1, Menyajikan karya tentang perkembangbiakan tumbuhan</p>	<p>Mengamati tanaman di sekitar terkait perkembangbiakan vegetatif dan manfaatnya.</p>	<ul style="list-style-type: none"> - Menginformasikan kepada siswa bahwa mereka akan belajar tentang perkembangbiakan tumbuhan secara vegetatif. - Memulai kegiatan dengan melakukan pengamatan gambar yang ada pada buku pelajaran dan melakukan diskusi setelahnya. - Melakukan kegiatan pengamatan terhadap tanaman-tanaman di sekitar sekolah yang berkembang biak secara

		<p>vegetatif.</p> <ul style="list-style-type: none"> - Menuliskan tabel hasil pengamatan pada buku dan menuliskan manfaat perkembangbiakan tumbuhan secara vegetatif.
<p>3.1, Membandingkan cara perkembangbiakan tumbuhan dan hewan</p> <p>4.1, Menyajikan karya tentang perkembangbiakan tumbuhan.</p>	<p>Membandingkan perkembangbiakan hewan yang ada di negara ASEAN menggunakan diagram venn</p>	<ul style="list-style-type: none"> - Membaca teks tentang hewan-hewan yang hidup di negara ASEAN - Menulis hewan yang ada di sekitar dan mengisi diagram venn - Menuliskan manfaat perkembangbiakan hewan secara vivipar dan ovipar.
<p>3.1, Membandingkan cara perkembangbiakan tumbuhan dan hewan</p>	<p>Menjelaskan perkembangbiakan secara ovipar, vivipar dan ovovivipar.</p>	<ul style="list-style-type: none"> - Menempel gambar tiga binatang dengan perkembangbiakan ovipar, vivipar dan ovovivipar pada papan tulis.

<p>4.1, Menyajikan karya tentang perkembangbiakan tumbuhan</p>		<ul style="list-style-type: none"> - Mendiskusikan tiga binatang tersebut. (<i>Collaboration</i>). - Menginformasikan kepada siswa bahwa mereka ada belajar tentang perkembangbiakan hewan lainnya yaitu ovovivipar. - Menulis manfaat perkembangbiakan ovipar, vivipar dan ovovivipar.
<p>3.1, Membandingkan cara perkembangbiakan tumbuhan dan hewan</p> <p>4.1, Menyajikan karya tentang</p>	<p>Mendiskusikan pelestarian hewan</p>	<ul style="list-style-type: none"> - Menyampaikan tentang hewan dan tumbuhan terkait perkembangbiakan, manfaat atau pelestariannya. - Mengamati gambar dan menjawab pertanyaan. - Menulis tentang

perkembangbiakan tumbuhan		pelestarian hewan yang ada di sekitar.
3.1, Membandingkan cara perkembangbiakan tumbuhan dan hewan	Membuat poster tentang melestarikan tumbuhan atau hewan	- Menyampaikan informasi akan membuat poster. - Mempelajari cara membuat poster terutama desain hewan atau tumbuhan. Tema poster tentang pelestarian hewan atau tumbuhan. (<i>Mandiri</i>)
4.1, Menyajikan karya tentang perkembangbiakan tumbuhan		- Mengkampanyekan pelestarian hewan atau tumbuhan (Makhluk hidup)

LESSON PLAN

School	: MI Miftahul Huda
Grade / Semester	: 6th / I
First Theme	: Save the Organism
Sub-theme 3	: Let's Save the Organism
Meeting	: 1
Time	: 1 x 35 minutes (1 meeting)

G. Core Competency

5. Menerima dan menjalankan ajaran agama yang dianutnya
6. Memiliki perilaku jujur, disiplin, tanggung jawab, santun, peduli dan percaya diri dalam berinteraksi dengan keluarga, teman, guru dan tetangga.
7. Memahami pengetahuan faktual dengan cara mengamati (mendengar, melihat, membaca) dan menanya berdasarkan rasa ingin tahu tentang dirinya, makhluk ciptaan Tuhan dan kegiatannya dan benda-benda yang dijumpainya di rumah dan di sekolah.
8. Menyajikan pengetahuan faktual dalam bahasa yang jelas, sistematis dan logis dalam karya yang estetis, dalam gerakan mencerminkan anak sehat, dan dalam tindakan yang mencerminkan perilaku anak beriman dan berakhlak mulia.

H. Basic Competency and Indicator

Bahasa Indonesia

Basic Competency :

3.1, Menyimpulkan informasi berdasarkan teks laporan hasil pengamatan yang didengar dan dibaca.

4.1, Menyajikan simpulan secara lisan dan tulis dari teks laporan hasil wawancara yang diperkuat oleh bukti.

Indicator

- Menemukan ide pokok dengan bantuan diagram
- Menulis kesimpulan

Ilmu Pengetahuan Alam (IPA)

Basic Competency :

3.1, Membandingkan cara perkembangbiakan hewan dan tumbuhan.

4.1, Menyajikan karya tentang perkembangbiakan tumbuhan.

Indicator

- Menjawab pertanyaan tentang pelestarian hewan
- Melaporkan cara melestarikan hewan di lingkungan

Ilmu Pengetahuan Sosial (IPS)

Basic Competency :

3.1, Mengidentifikasi karakteristik geografis dan kehidupan sosial budaya, ekonomi dan politik di wilayah ASEAN

4.1, Menyajikan hasil identifikasi karakteristik geografis dan kehidupan sosial budaya, ekonomi dan politik di wilayah ASEAN

Indicator

- Menyebutkan kehidupan politik dari dua negara terkait kondisi geografisnya.
- Menulis laporan tentang perbedaan kehidupan politik dari dua negara terkait kondisi geografisnya.

I. The Learning Objective

2. Setelah membaca teks laporan, siswa mampu menemukan ide pokok dengan bantuan diagram.
3. Setelah berdiskusi, siswa mampu menuliskan kesimpulan dengan rinci.
4. Setelah membaca teks, siswa mampu menjawab pertanyaan mengenai pelestarian hewan dengan tepat.
5. Setelah berdiskusi, siswa mampu melaporkan cara melestarikan hewan di lingkungan sekitar dengan tepat.
6. Setelah membaca teks tentang kehidupan politik di negara ASEAN, siswa mampu menyebutkan kehidupan politik dari dua negara terkait kondisi geografisnya dengan benar.
7. Setelah berdiskusi, siswa mampu menulis laporan tentang perbedaan politik dari dua negara terkait kondisi geografisnya dengan benar melalui diagram venn

J. Media and Learning Tool

4. Poster of Animal
5. Teacher book
6. Student book

K. Learning Approach and Method

Approach : Science Process Skill with Scientific

Method : Demonstration, Experiment, Discussion, QnA,
Excercise and Speech

L. Learning Procedures

Activities	Description	Time
Introduction	Opening <ul style="list-style-type: none">- Guru mengucapkan salam dan mengajak siswa berdoa.- Melakukan komunikasi tentang kehadiran siswa.- Meningkatkan motivasi dan perhatian siswa dengan bertepuk	5 minutes

	<p>tangan dan menyanyikan lagu yang sesuai dengan mata pelajaran.</p> <ul style="list-style-type: none"> - Menyiapkan fisik dan psikis peserta didik dengan kegiatan yang menyenangkan. - Guru mengulas kembali materi sebelumnya - Guru menyampaikan tujuan pembelajaran hari ini 	
Main Activity	Let's Observe! <ul style="list-style-type: none"> - Guru mengajak siswa untuk menyampaikan pendapatnya mengenai 	25 Minutes

	<p>perkembangbiakan tumbuhan dan hewan serta pelestariannya.</p> <ul style="list-style-type: none"> - Siswa menuliskan masing-masing dua hal - Guru mendiskusikannya secara klasikal, apabila belum jelas siswa diperkenankan bertanya. - Siswa diminta untuk mengamati gambar dan menjawab pertanyaan. - Jawaban siswa didiskusikan secara klasikal - Guru memberi penguatan kepada siswa 	
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	<p>- Guru membuat kelompok, setiap kelompok terdiri dari 4 siswa.</p> <p>- Guru berkeliling membimbing jalannya diskusi untuk memastikan setiap anggota berpartisipasi aktif.</p> <p>- Guru mengajak setiap perwakilan kelompok untuk menyampaikan hasil diskusinya dan memberikan penguatan pada siswa.</p> <p>- Guru memberi kesempatan kepada setiap siswa untuk saling berkomentar dan menjawab</p>	
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	<p>pertanyaan.</p> <ul style="list-style-type: none"> - Guru memberikan penguatan dan apresiasi terhadap siswa 	
Closing	<ul style="list-style-type: none"> - Guru memberikan refleksi kegiatan hari ini. - Guru dan siswa membuat kesimpulan - Guru memberikan motivasi dan tugas membaca kepada siswa. - Guru menutup kelas dengan salam dan doa. 	5 minutes

MODULE

1. TUJUAN

Tujuan dari praktikum ini adalah Siswa mampu membuat magnet dengan cara induksi.

2. ALAT DAN BAHAN

- Magnet 1 buah
- Besi 1 batang
- Jarum 10 buah
- Paku kecil 10 buah
- Potongan Staples

3. PROSEDUR

Kegiatan 1

Peganglah magnet dan dekatkan dengan besi, apa yang terjadi? Amati

!.....
.....

Gosokkanlah besi pada magnet searah jarum jam. Kemudian tempelkan jarum-jarum kecil, potongan staples dan paku pada besi secara bergantian, amati, apa yang

terjadi?.....
.....

Jauhkan magnet dengan besi, amatilah yang terjadi !

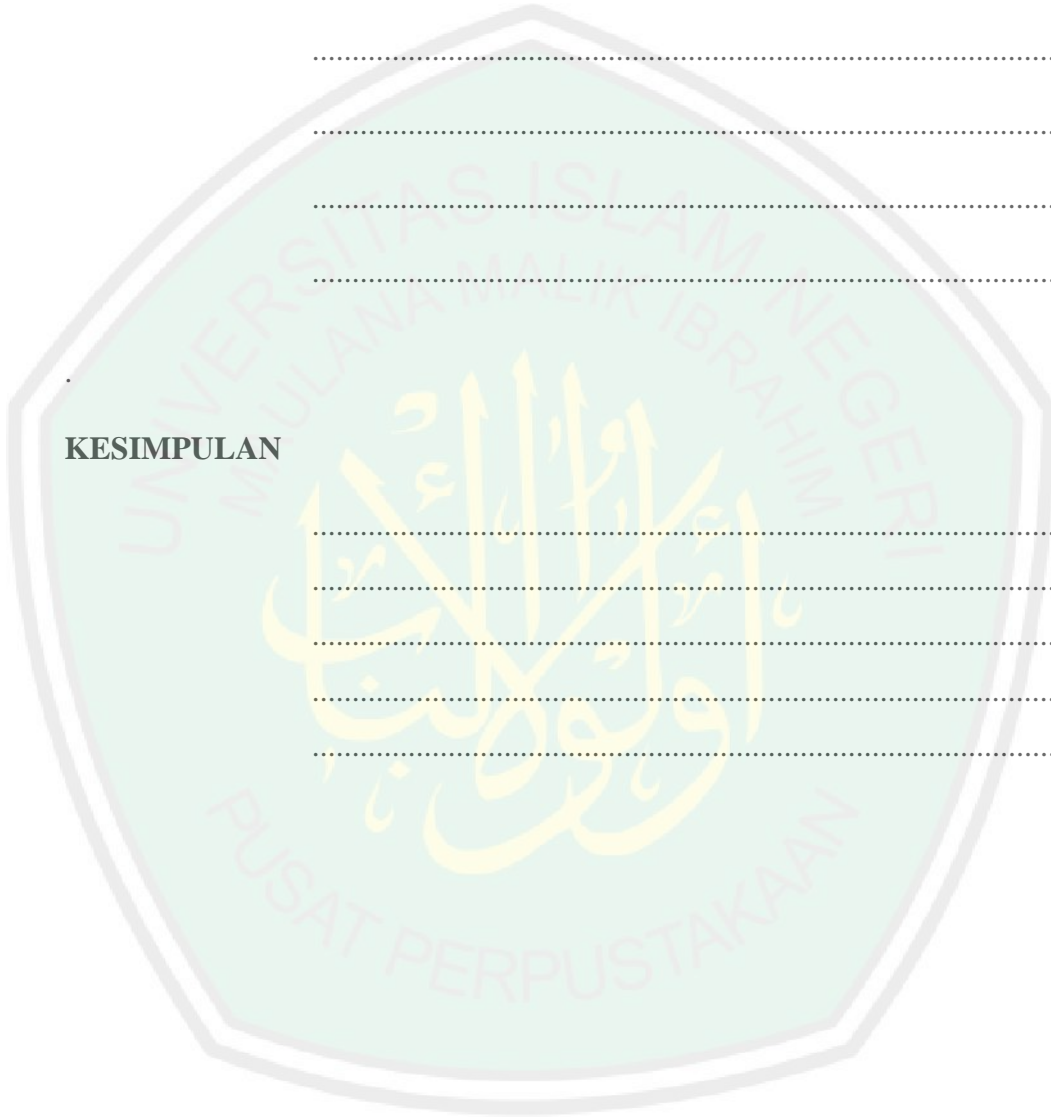
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Kesimpulan dari percobaan 1 sampai 3 adalah?

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KESIMPULAN

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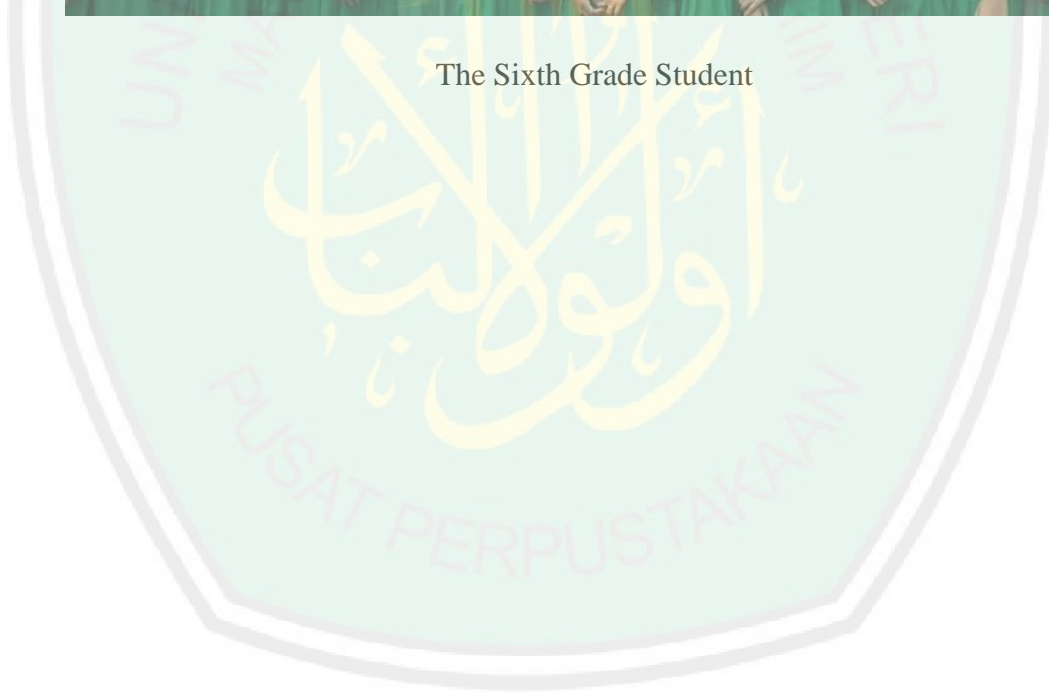


The Teacher in MI Miftahul Huda Ngadireso Poncokusumo





The Sixth Grade Student



The Student's Learning Outcomes





