BACHELOR THESIS WRITING GUIDELINES

Mencerdaskan dan Memartabatkan Bangsa

Bachelor Education
Faculty of Mathematics and Natural Sciences
Universitas Negeri Jakarta
2017

BIOLOGY EDUCATION
PHYSICS EDUCATION
CHEMISTRY EDUCATION
MATHEMATICS EDUCATION

SAY INTRODUCTION

We give thanks to Allah SWT for his grace and His guidance, the FMIPA undergraduate thesis guidebook revision team can finish task in revise book guidelines preparation thesis in environment Faculty Mathematics And Knowledge Natural Sciences, Jakarta State University (FMIPA UNJ). On name of the Head of the Faculty of Mathematics and Natural Sciences, we give awards and Thank You to team Which has Work hard carry out task given by Faculty.

The revision of the thesis guidebook aims for standardization writing thesis for student Program Studies Education in environment FMIPA UNJ. Matter This because rapidly development knowledge And writing rules work scientific Which growing and publication demands for every scholar in this world education.

Hopefully this guidebook can help student And lecturer mentor in finish task end, so that can impact on acceleration period studies student. We realize what we can be certain of is preparation guidelines This still needs improvement. All positive feedback withlike heart will we accept For repair And enhancement quality civitas academics FMIPA UNJ. Hopefully guide This beneficial Also for para reader Which need it.

Jakarta, November 2016
Dean,
Prof. Dr. Suyono, M.Sc.

LIST CONTENTS

LIST ATTACHMENT

SK DEAN

KEMENTERIAN RISET, TEKNOLOGI DAN PENDIDIKAN TINGG
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Building Future Leaders

KEPUTUSAN
DEKAN FAKULTAS MATEMATIKA DAN ILMU PENGETAHUAN ALAM
UNIVERSITAS NEGERI JAKARTA
Nomor: 01.a/UN39.5.FMIPA/SK/2017

TENTANG

BUKU PANDUAN PENULISAN TESIS
FMIPA UNIVERSITAS NEGERI JAKARTA

Menimbang :

1. Bahwa dalam rangka penyelesaian studi mahasiswa program magister di lingkungan FMIPA Universitas Negeri Jakarta perlu adanya suatu buku panduan penulisan tesis bagi mahasiswa program pascasarjana di lingkungan FMIPA Universitas Negeri Jakarta;
2. Bahwa panduan penulisan tesis yang selama ini digunakan oleh Program Pascasarjana Universitas Negeri Jakarta perlu disesuaikan dengan karaktersistik di FMIPA Universitas Negeri Jakarta;
3. Bahwa sehubungan dengan butir 1 dan 2 tersebut di atas perlu ditetapkan Keputusan Dekan FMIPA Universitas Negeri Jakarta tentang Buku Panduan Penulisan Tesis FMIPA Universitas Negeri Jakarta.

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   b. Nomor 20 tahun 2003 tentang Sistem Pendidikan Nasional;
2. Peraturan Pemerintah RI Nomor 60 tahun 1999 tentang Pendidikan Tinggi;
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4. Keputusan Menteri Pendidikan dan Kebudayaan RI Nomor 280/O/1999 tentang Organisasi dan Tata Kerja Universitas Negeri Jakarta;
5. Keputusan Menteri Pendidikan Nasional RI :
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   b. Nomor 205/O/2003 tentang Statuta Universitas Negeri Jakarta;

6. Keputusan Rektor Universitas Negeri Jakarta :
   a. Nomor 239/SP/2006 tentang Pembentukan Lembaga Penjaminan Mutu Universitas Negeri Jakarta
   b. Nomor 08.A/SP/2007 tentang Susunan Organisasi Lembaga Penjaminan Mutu Universitas Negeri Jakarta
   c. Nomor 549/SP/2013 tentang pemberhentian dan pengangkatan Dekan Fakultas MIPA Universitas Negeri Jakarta Periode 2013-2017.

MEMUTUSKAN

Menetapkan : **KEPUTUSAN DEKAN FMIPA UNIVERSITAS NEGERI JAKARTA TENTANG BUKU PANDUAN PENULISAN TESIS FMIPA UNIVERSITAS NEGERI JAKARTA TAHUN 2017**

Pertama : Menetapkan Buku Panduan Penulisan Tesis FMIPA Universitas Negeri Jakarta Tahun 2017 sebagai acuan penulisan tesis bagi mahasiswa program pascasarjana di lingkungan FMIPA Universitas Negeri Jakarta;

Kedua : Keputusan ini berlaku sejak tanggal ditetapkan, dengan ketentuan apabila di kemudian hari terdapat kekeliruan/kesalahan dalam keputusan ini akan diperbaiki sebagaimana mestinya.

Ditetapkan di Jakarta
Pada tanggal 2 Januari 2017
Dekan FMIPA UNJ

Prof. Dr. Suyono, M.Si
NIP. 19671218199303 1 005

Tembusan :
1. Rektor
2. Direktur Pascasarjana UNJ
3. Para Koordinator Program Studi Magister di FMIPA UNJ
4. Pertinggal

PIG
INTRODUCTION

A. Background Behind

Completion of studies is an academic activity in the end of the study period that each student must complete to be declared to have passed a certain level. this activity is the culmination of all previous academic activities which shows the level of competency mastery that must be achieved held at the relevant level. Academic work must arranged by student on level bachelor is thesis.

There are many types of research that can be used to complete the thesis as a student scientific work. Each type study own characteristics Which different Which its use very dependent on type problem Which will researched. For student program educational studies, a number of type study Which can studied includes: quantitative and qualitative research. Quantitative research consists on study quantitative comparative And associative. While qualitative research includes classroom action research, study And development, research design, And study qualitative descriptive. There are many different types of research character the, No seldom give rise to difference opinions between supervisors or between supervisors and examiner, Good concerning problem technical writing nor

issues of research substance and methodology, during the process guidance and research even during exams. This difference usually caused on obstruction student in finish the thesis And on Finally No can finish studies in accordance plan.

Based on experience the, so seen It is necessary to create a guideline that can be used as a reference by all parties on various matters relating to process solution studies. Guidelines writing This arranged based on *WHAT* (*American Psychological Association*) *system* .

B. Objective

Objective from preparation book guidelines This is as instruction for students, mentor And examiner in terms of mechanism, systematic And technique writing in frame process solution studies through track thesis.

CHAPTER II
THESIS, GUIDE, EXAMINERS, MECHANISM EXAMTHESIS AND IPR

A. Definition Thesis

Thesis is work scientific student Which written And prepared at the end of the study program as one condition For get title Bachelor Education (S.Pd). This scientific work was prepared based on student researchconcerned under the guidance of two supervisors, namely as Supervisor I and Supervisor II. This scientific work is mandatory published in the Faculty repository according to the field studies.

B. Criteria Thesis

Thesis reveal logic think Student in:

1. Observe, identify, formulate, analyze,create and answer something problem.
2. Carry out an appropriate procedure in orderanswer the problem he chose
3. Make report results study in a way systematic in accordancewith rule writing Which there is in the book guide.

C. Team Mentor

Every student Which prepare And carry out research for the preparation of the thesis was supervised by two lecturers mentor with provision as following:

1. Mentor I at least have position Head Lecturer or Lector holds a Master's or Doctoral degree in accordance with research field Student.
2. Supervisor I for student thesis research has status lecturer still Program Studies.
3. Mentor II at least have position Lecturer or Master's degree. appropriate to the field study Student
4. Supervisor II may not be a permanent lecturer if at FMIPA UNJ No There is lecturer expert in field study Which chosen students or if the research involves students or facility institution other in outside FMIPA UNJ minimum degree Masters (Permenpan No. 17 years old 2013)
5. Supervisor II was given a letter of assignment by the Dean of FMIPA UNJ through the Coordinator Program Studies.
6. Supervisor II can also be a permanent lecturer across study programs or across Faculties in UNJ.

D. Authority And Responsibility Mentor

Authority And responsibility Team Mentor includes:

1. Guiding the preparation of the thesis proposalseminar.
2. Present on implementation seminar pre thesis.

3. Guide implementation study And writing report.
4. Control time solution thesis
5. Present on implementation exam thesis.
6. Guide writing article

E. Team Examiner And Committee Exam

Committee Exam Thesis consists from element person responsible, executor, and examiners.

1. Insurer answer is Dean helped Representative Dean I as representative person responsible.
2. Executor exam is Coordinator Study program
3. Team Examiner consists from One person element executor, two person expert in the field, And two person mentor thesis.

Mechanism Exam Thesis

Before students take the thesis exam, they must fulfil a number of condition, that is has finish Minimum study load of 140 credits and have passed all courses must. The mechanism for implementing the thesis preparation seminar and exam thesis follow SOUP Which issued by Group Guarantee Quality FMIPA UNJ.

F. IPR

When whole or part thesis student Which concerned published as article, letter news, book or

scientific paper, then the student's name is listed as writer First, Mentor I as writer second And Mentor II as writer third. If mentor I process in a way different, more wide, And more deep become book, article or paper scientific in magazine, seminar, symposium, or congress, hence the name Supervisor I as the first author, Supervisor II as the second author, whereas Name student be included as writer third. If Supervisor II makes joint use, then Mentor II be included as writer First, Supervisor I as second author and students as third author. Utilization of thesis data if the research is conducted done is umbrella study lecturer mentor, then it is the supervisor's right. Meanwhile research Which is idea student If the data will utilized must get permission written from student concerned.

CHAPTER III
SYSTEMATIC WRITING THESIS

The thesis consists of three parts, namely the introduction, contents, and the final part. The initial part consists of: cover page, pages title, endorsement page, originality statement page, words introduction, abstract, table of contents, table list, figure list, and list attachment. The content section includes the systematics of writing an appropriate thesis with the type of research. While the final part consists of a list References, attachment, And history life writer. Following explanationFor each part:

A. Part Beginning

1. Page Cover (Cover)

This page is typed single spaced using capital letters and bold , font type: Arial, except for the purpose of writing *and* placed in the middle (*center alignment*). The cover contains the title, objective writing, symbol University Country Jakarta, Name complete and complete student registration number, name of study program, Name faculty, Name university, And year solution (Example can seen on attachment 1a And 1b). All information is typed using size 12, bold, except title typed with size 14. Page This bound with blue hardcover, printed with gold ink and tape barrier color purple, page barrier color blue with UNJ logo.

2. **Page Title**

   Page title load matter Which The same with page cover, but printed boldly on A4 size HVS paper, 80gsm as usual, uses black ink, example can seen on attachment 2.

3. **Page Endorsement**

   Page validation containing Name And sign hand Guide, Examiner, Dean, Servant Dean 1, Chairman Examiner, And secretary Examiner. Date passed is date judiciary, example can seen on attachment 3.

4. **Page Statement Originality**

   Containing statement that thesis the is results work scientific Which arranged based on results procedure research/development carried out independently and not is duplication work scientific person other. Statement the signed in on duty stamp Rp. 6,000,- And in accordance format Which provided, example can seen on attachment 4.

5. **Abstract**

   An abstract is a short, comprehensive writing of the content thesis so that by reading the abstract the reader can evaluate fill thesis with fast Because abstract containing introduction, main problem, objectives, research methods, results research and conclusions. Abstracts are written in two languages namely Indonesian and English with pages separated. Long abstract maximum 1 page maximum

totaling 200 words typed with Times New font Romance and 1 space spacing in one paragraph, examples can be seen on Appendices 5a and 5b.

6. Say Introduction

The foreword contains important things such as words of praise thanks to Allah/God Almighty, thanks thanks to the thesis supervisor, collector or processor data and providers of financial assistance (if needed). Parties others not directly involved do not need to be mentioned. Will but if the author wants a thank you personal love, for example parents, husband/wife, Children may also be listed according to the EYD. Words are arranged in essay form, maximum 2 pages, example can seen in the attachment 5.

7. List Contents

The table of contents contains in detail the contents of the entire thesis along with the page number and using 1 space. Element included in the table of contents starting from the page title to attachments. This page contains about number page title, page validation, page statement, foreword, abstract, table of contents, list of tables, list picture, list attachment, chapter And sub chapter, list bibliography, appendices and author's curriculum vitae, examples can seen on attachment 7.

8. List Table

The table list (if any) contains the sequential number, table title along with number page place table the served sequentially in accordance chapter Which there is in in thesis, example can seen on attachment 8.

9. List Picture

The image list (if any) contains the serial number, image title along with number page place picture the served sequentially according to the chapters contained in the thesis, for example can seen on attachment 9.

10. List Attachment

List attachment load all number, title And number The pages of all the attachments are presented in sequence contained in the thesis, examples can be seen in the attachment 10.

B. Part Contents

1. Study Quantitative

Study quantitative own method look *positivism* , that is method look Which state that existence fact/reality social And reality physique is *independent* or separated, free or is at in outside self researcher.Therefore, anyone who will research this reality can observe or measure it. If observation/ the measurement is not biased so research results the can categorized as as knowledge scientific *(scientific knowledge*). Method look positivism own characteristics

as following: 1) assumption that reality is objective, separately outside the researcher, can be observed And be measured, 2) objective research is to describe and explain relationships between the variables being measured, 3) focus on reducing reality tovariable And variable can be measured with instrument And produces numerical data and is in the form of a distribution, 4) assumptions methodological: deductive process, relationships between variables, causes Consequently, the static design has been determined beforehand study, free context (*context-free)* , results prediction-explanation can generalizability, validity And reliability can be known, 5) data analysis using statistical analysis, 6) the role of research theoretical very dominant For explain And answer question research/formulation problem, 7) data quantitative centered on the unit of analysis and in the form of a distribution. Study quantitative center his attention on symptom Which have characteristics certain Which varies in human life, that is called a variable. The nature of relationships between variables analyzed with use theory Which objective. Because the study targets are quantitative research is a symptom, whereas symptom Which There is in life man No limited And No limited also possibility variation And the hierarchy. Study quantitative focused on variable, even before study carried out has been determined in advance First, the variables that will be studied. In study quantitative measurement of observed symptoms is a thing very important. Collection data done with use instrument Which arranged based on indicator

from variable Which researched, Then produce data quantitative.

Based on method used quantitative research can be classified as comparative quantitative research consisting of experimental research And study *ex post facto* And study Quantitative Associative Which consisting of research association correlational And study causal association .

Systematics Writing Study Quantitative

CHAPTER I INTRODUCTION

A. Background Behind Problem
B. Identification Problem
C. Restrictions Problem
D. Formulation Problem
E. Objective Study
F. Benefit Study

CHAPTER II STUDY REFERENCES

A. Description Conceptual
    1. Variable Bound (Y)
    2. Variable Free (X)
B. Results Study Which Relevant
C. Framework Think
D. Hypothesis Study

CHAPTER III METHODOLOGY STUDY

A. Objective Operational Study
B. Place And Time Study
C. Method Study
D. Design Treatment
E. Population And Sample
F. Technique Collection Data
G. Instrument Study
    Variable Bound
    1. Definition Conceptual
    2. Definition Operational
    3. Grille Instrument

4. Testing Validity And Counting ReliabilityVariable Free
1. Definition Conceptual
2. Definition Operational
3. Grille Instrument
4. Testing Validity And Counting Reliability

H. Hypothesis Statistics
I. Technique Analysis Data

CHAPTER IV RESEARCH RESULT AND DISCUSSION

A. Description Data
B. Testing Condition Analysis
C. Testing Hypothesis
D. Discussion Results Study

CHAPTER V CONCLUSION IMPLICATIONS AND SUGGESTION

A. Conclusion
B. Implications
C. Suggestion

Systematic

ExplanationCHAPTER I

INTRODUCTION

A. Background Behind Problem

Background behind problem explain about exists gap between hope And reality. Fact or reality is What Which There is Now form data secondary, the result of observation, personal experience, or results study other. Hope is what it should be or Which desired Which form Constitution, regulation, vision and mission, strategic plan, curriculum, or theories in *text books* (*literature*) and journals. The gap between fact And hope This explained by researcher as problem study.

B. Identification Problem

Researchers outline various problems that result in- There is a gap between expectations and reality. Problem Which identified stated in form statement.

C. Restrictions Problem

Researchers limit the problems to be studied with focus on variables Which will be researched.

D. Formulation Problem

The problem formulation relates to questions about the existence of an independent variable is good for only one variable or more.

E. Objective Study

Researcher describe objective study Which want to achieved adjusted to formulation of the problem.

F. Benefit Study

The benefits of research results are the impact of achieving-goals and answering problems accurately. Benefitstudy can outlined For develop knowledge/ utility theoretical And help solve And anticipate problem Which There is on object Which researched.

CHAPTER II STUDY REFERENCES

A. Description Conceptual

The theory is used to clarify and sharpen room scope or construct variable Which researched, For formulate hypothesis And compile instrument study.

Theory Also used For discuss results study so that used as a basis for providing advice in solution efforts problem.

B. Study Which Relevant

Research that has been carried out is: base for further research.

C. Framework Think

Framework think explain in a way theoretical connection between variable Which researched. Explanation connection between variable This deliver on hypothesis study.

D. Hypothesis Study

A hypothesis is a temporary answer to a formulationproblem study Which tested the truth.

CHAPTER III METHODOLOGY STUDY

A. Objective Operational

Researcher describe objective study Which want to achieved customized with formulation problem.

B. Place And Time Study

The researcher describes the location where the research was conducted and time Which used during study, start from preparation of research plans (proposals) up to preparation report study That finished done.

C. Method Study

To answer the problem formulation and test the hypothesis required method study. For That in part This set method study Which used. In side

It also explains the research variables and design study.

D. Design Treat

For comparative quantitative research, research design describes the treatment given to the group experiment and control in a way clear.

E. Population And Sample

Population and sample are mandatory data sources explained in study. When results study will generalized so sample Which used as source data must representative. Wrong One method so that sample representative, can taken in a way random from population until amount certain.

F. Technique Collection Data

Researcher explain types instrument And scale measurement Which used, as well as stages development instrument.

G. Instrument Study

The researcher explains the instruments used for taking research data, including: conceptual definition, definition operational, grille instrument, process validation draft, testing validity And calculation reliability instrument.

Variable Bound and Variable Free

1. Definition Conceptual

   Researcher explain draft variable Which researched based on synthesis researcher to concepts

which is analyzed, equipped with dimensions and indicators from draft variable Which researched

2. Definition operational

   Researcher explain definition Which measurable Which equipped with details indicator study (measurable) And units analysis measurement variable Which in for the instrument, as well as respondents Which fill in instrument.

3. Grille Instrument

   Researcher serve grille instrument based on definition conceptual. Grille instrument served in form table Which containing dimensions, indicator, number item And amount item For every indicator Which be measured.

4. Testing Validity And Counting Reliability Researchers describe the results of Validity Testing (construct/content) carried out through expert review and/or panel.

   Theoretical review processconcept starts from conceptual definition , definition operational, dimensions, indicator, item instrument. Researcherexplain expert/panel Which examine instrument,procedure study And results he studied in a way qualitativeorquantitative when use study panel. Furthermoreresearcher explain procedure study And results testingvalidity by panelists quantitatively, thencontinued by explaining validity testing empirical and calculation of reliability coefficients. Testingvalidity empirical using biserial

correlation, correlationpoint biserial or correlation product moments customized

with form score item (dichotomy or polytomy). Counting coefficient reliability between other use KR20 or Cronbach's Alpha.

H. Hypothesis Statistics

Researchers write statistical hypotheses with the symbol or symbol para meters statistics Which describe a statement about the characteristics of a population that constitutes tentative answers to research questions. Statement the shaped proposition as a result of framework theoretical. Lots of it hypothesis statistics in accordance with many research hypothesis.

I. Technique Analysis Data

Researcher describe technique analysis data Which used includes data analysis with descriptive statistics, analysis data with statistics inferential And test condition the analysis. Analysis data with statistics descriptive can served in form table distribution frequency, histogram, *stem and leaf* (stem leaf diagram) or *box plot* (line box diagram). Analyze data with statistics inferential in accordance with hypothesis study.

CHAPTER IV RESULTS STUDY AND DISCUSSION

A. Results Study

Results study form exposure And description data Which obtained from activity study Which done (interview, charging questionnaire/questionnaire, documentation,

test results, and so on) which are arranged systematically with refers on problems and research purposes.

B. Discussion Results Study

Discussion done with refers on results study or findings study, Which linked/ confirmed by the theories put forward in Conceptual Description section. This is done so that researchers can give interpretation or interpretation to findings (things new) the.

CHAPTER V CONCLUSION, IMPLICATIONS AND ADVICE

A. Conclusion

Researchers put forward conclusions related to problem And objective study Which has formulated. New findings as a result of research should stated also.

B. Implications

Researcher explain implications Which is consequence logical from conclusion study Which followed up with improvement efforts.

C. Suggestion

Researcher write suggestion Which originate from thinking researcher Which related with operational implications research to various parties related to the problem study.

2. Study Action Class

Study examine action or more often called study action is form study qualitative. Like case study qualitative Which try disclose symptom thoroughly with context (holistic-contextual) through data collection from natural settings, action research is also on in principle along with this. But the emphasis is Slightly different from action research is the existence of effort For finish or give solution practical to problem faced.

On study action, process And meaning from corner the subject's point of view is more emphasized, and tends to use analysis with approach inductive Where researcher disclose problem, analyze problem, meren- canakan action, carry out action with give alternative solutions, reflecting on their actions based on the results, and conclude. So that in matter This researcher Also me- place himself at a time as instrument study.

Action research reports must have a clear focus, where the focus can be a problem, an evaluation object or a choice policy. Although focus study This no rigid the shape. Because after pass period time study certain, for example after a month carry out study Then appear problem other Which more own urgency For resolved, so researcher can change focus research to solve this problem. Report study action must own structure And form Which

coherent that can fulfill the intent reflected in focus study.

Style writing report study action No use model single. Style writing can nature formal, informal, or a combination of both, Written reportwith a formal style containing the main things at the beginning, Then show aspects Which considered important presented along with examples from the data. Whereas report Which stylish informal, like novel, containing exposure A story Which ended with part conclusion.

Systematics writing research thesis action on Basically it consists of three main parts: the initial part, the core part and the closing/ending part. The following will explain the systematics writing at the core.

Systematics of Classroom Action Research

WritingCHAPTER I INTRODUCTION

A. Background Behind
B. Focus Study
C. Formulation Problem
D. Objective Study
E. Benefit Study

CHAPTER II STUDY REFERENCES

A. Study References
B. Study Which Relevant
C. Framework Think

CHAPTER III METHODOLOGY STUDY

A. Objective Operational Study
B. Place And Time Study
C. Method Study
D. Procedure Action Research

E. Criteria Success Action
F. Source Data
G. Technique Collection Data
H. Validation Data
I. Technique Analysis Data

CHAPTER IV RESULTS STUDY AND DISCUSSION

A. Description Results Study
B. Discussion
C. Findings Study (If There is)

CHAPTER V CONCLUSION AND SUGGESTION

A. Conclusion
B. Implications
C. Suggestion

BIBLIOGRAPHY
ATTACHMENT

Systematic

ExplanationCHAPTER I

INTRODUCTION

A. Background Behind

This section contains a description of the research background, For Meaning What study This done, And what/whowho directed the research. The most important thing is must noticed in write part This in study action is there is explanation about the reason a researcher takes action. That reason must be based on data obtained from research introduction. Preliminary research needs to be carried out in order problem Which appeared of course need researched And followed up with action Which real For finish problem.

B. Focus Study

Researcher set focus problem Which researched based on background behind problem. Focus study expressed in the form of a statement stating the solution or alternative solution problem.

C. Formulation Problem

Formulation problem is focus study Which explained in the form of questions. Question study load alternative solution problem Which offered.

D. Objective Study

The researcher describes the research objectives to be achieved customized with formulation problem

E. Benefit Study

The benefits of research results are the impact of its achievements goals and solutions to problems. The benefits of research can be elaborated to develop knowledge or theoretical use And help solve And anticipate problem Which There is on object Which researched.

CHAPTER II STUDY REFERENCES

A. Study References

Base theory benefited as uncle researcher so that focus study still awake in accordance with circumstances in field. Apart from that, the theoretical basis is also useful for give description general about research background And as discussion study. There is difference fundamental

regarding with role base theory And connection with the form of research. Theoretical foundations in research quantitative leave from theory going to data, And end on reception And rejection to theory Which used; whereas in study qualitative, researcher starting from data, and by utilizing existing theory as material explainer, And end with a ' *theory new*' , form findings/actions Which very applicative results findings during the research. So in laying the foundation theory, theories or opinions Which No is directly related and is not the basis for doing it action during study don't included/written.

B. Study Which Relevant

Researcher write/put forward results study Which relevant to the research conducted. Research that Relevant data can be taken from journals or other sources. Researcher must also explain the current position of the research done with study other Which relevant.

C. Framework Think

Framework think explain in a way theoretical connection between problems in research and action chosen as solution problem.

CHAPTER III METHODOLOGY STUDY

A. Objective Operational Study

The researcher explains the purpose of the research carried out. Objective study must in accordance with formulation problem.

The formulation of objectives must lead to improvement efforts For overcome the problems studied

B. Place And Time Study

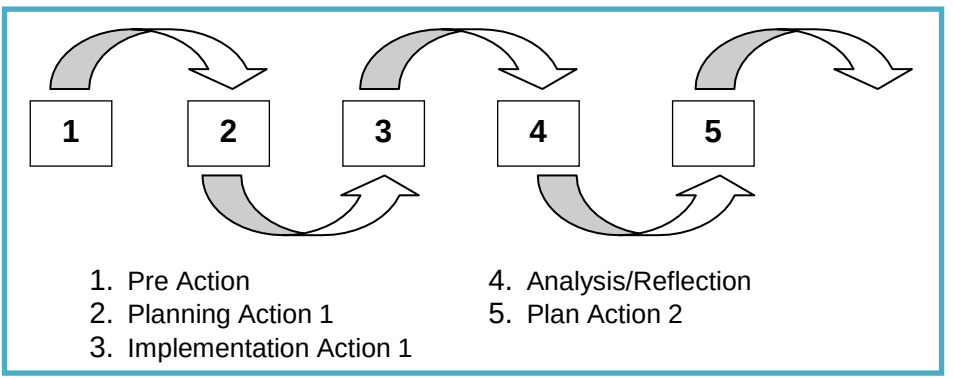
Researcher explain with details place held research, characteristics, and school atmosphere even up to class where the research was conducted. This is intended so that readers can imagine the school and can be the basis for the same/similar research possible done in circumstances school And class kind in place other. Time Which used during study start from preparation plan study (proposal) until preparation report study.

C. Method Study

Researcher explain method study action Which used in problem solving in the form of an approach qualitative with action plans and their characteristics accompany him.

D. Procedure Study Action

The researcher explains the cycle designed in the research in accordance with model action Which chosen. Every cycle explained How action the done in a way detailed in accordance with stages model action Which chosen. Every stages explained What Which held And How implementation, What results Which expected obtained by students after completing actions and also reflections for follow up meeting before heading to the meeting next.



Picture 1. Cycle Study Action

E. Criteria Success Action

Researcher give indicator success in accordance with theory referred to from the action model. Success indicators explained operationally to determine successevery cycle.

F. Source Data

Researchers explain data sources which include data from researcher (Teacher nor participation observer), collaborator/observer, object study And source data other

G. Technique Collection Data

1. Grille Instrument

   Researcher explain grille instrument Which used in collection data study action. Grille contains aspects to be measured in the action model For acquisition knowledge or Act in demand subjectAnd object his research.

2. Type Instrument

   Researcher explain type instrument Which used as a data collection tool in research actions, Good That form test, sheet observation, sheet interview, sheet Work student, tool recorder (audio nor audio visual) etc.

3. Validation Instrument

   Researcher explain technique Which used For testing validity of all instruments.

H. Validation Data

Researchers explain the techniques used to swallow model action. Explanation load procedure And expert Which examine model action. Validation data qualitative done through triangulation data.

I. Technique Analysis Data

Researchers describe the data analysis techniques used includes data analysis with descriptive statistics and analysis data in a way qualitative. Analysis data with statistics Descriptives are presented in the form of tables or graphs. Analysis in a way qualitative done with method describe information used as data during collection data And after data collected. Analysis during collection data includes: develop notes field, transcripts: conversation, discussion, interviews, student discussion processes; analysis of photos and sheets Work student.

CHAPTER IV RESULTS STUDY AND DISCUSSION

A. Description Results Study

Chapter III load description about data And findings Which obtained using methods and procedures described in Chapter II. This description consists of a description of the data Which served with topic in accordance with question- research questions and data analysis results. Data description the obtained from observation (What Which happen) and/or results interview (What Which said) as well as description information other (for example Which originate from documents, photos, video recordings and measurement results). Results analysis data Which is research findings served in form patterns, themes, tendencies, and motifs appear from data. In side That, findings can form presentation category, system classification, And typology.

Exposure data Which load information Which originate from observations and interviews that are considered prominent can be seen in example 1 and 2

> Pemberian soal-soal latihan membuat siswa terlihat mengerjakan lebih bersemangat karena tidak mau dianggap tidak mampu mengerjakan oleh teman-temannya, seperti diutarakan **subjek III:** "*Latihan menurut saya sendiri sih Bu … saya jadi lebih ngerti … teman-teman saya juga sepertinya jadi mau lebih berusaha …*". Ungkapan ini memperjelas bahwa siswa akan lebih berusaha jika diberi dorongan, waktu, kesempatan yang cukup untuk menyelesaikan soal yang diberikan guru, meskipun mereka menghadapi kesulitan.

Example 1. Notes Results Interview

Rabu, 17 April 2002: Jam ke-5 setelah istirahat. Setelah melihat hasil tes evaluasi yang dilakukan, masih banyak konsep yang belum dimengerti siswa. Ini dapat dilihat dari lembar hasil tes siswa (Subjek II), 1. $f(x) = 4 - x - x^3$. Maka nilai $f'(1) =$ $f'(1) = -3.(4 - x + x)$ $= -3.(4 - 1 + 1)$ $= -12 - 2$ $= -10$
Hasil pekerjaan siswa di atas membuktikan bahwa siswa belum mengerti konsep dasar turunan, bahkan penjumlahan bilangan negatif.

Example 2. Notes Results Observation

Apart from that, if you feel you need photos or drawings which may arise during the implementation of research is good for be included.

B. Discussion

Researcher discuss results study in a way wholewith explain success intervention/action Which done on cycle as well as weakness Which There is with exists intervention/action the. Researcher describeresults analysis in a way deep What Which happen during execution of actions and synchronizing data from various sources to strengthen the discussions carried out accordingly focused And question study. Discussion study adjusted to the focus and subfocus of the research interpretation or verification findings with connect

with concepts And theory Which There is. Researcher in The discussion refers to the underlying concept or theory model that action discussed.

Apart from discussing the progress of the actions taken, researcher Also explain development every subject study. Researcher show development subject- subject study Which he observed as proof that change happen on subjects the as results determining the actions/interventions to be carried out. Pairing data from each stages implementation action with show data results Work each subject study Which show development results Which he obtained.

CHAPTER V CONCLUSION AND SUGGESTION

A. Conclusion

Researcher explained conclusion results study in accordance with problem study Which has be delivered previously.

B. Implications

Researcher describe implications about utilization research results on operational learning, as well example implementation results study the in learning which is relevant

C. Suggestion

Researcher convey suggestion form follow carry on based on the conclusions obtained, both relevant facet positive or negative.

BIBLIOGRAPHY

ATTACHMENT

Attachments should containing descriptions Which seen important, for example instrument study, data raw results study, summary transcript recording data collection (observation, interviews, documentation), photo- field photos, and other relevant documents. For make it easier its use, every attachment must given number sort attachment with use Arabic numerals.

3. Study Development

Study Development is something business For develop something product Which effective For used school, And No For test theory. Study development defined as process Which used For develop And validate product education. The steps of this process are usually referred to as cycles *Research and Development* , Which consists from learn findings study Which related with product Which developed, developing product based on findings this, the test field in the setting where the product will be used in the end, and revise it to improve lack Which found in stage submit testing. In program Which more strict from R&D, cycle This

be repeated until data-field test show that product the fulfil objective behavior Which Already defined.

In development research, products are developed generated from process study, can shaped module learning, media learning, instrument learning And etc. Seminar proposal can held after researcher get data beginning study *need assessment* which is the basis for developing a model or product need done For reach objective learning or change expected behavior.

Systematics of Development Research Writing

CHAPTER I INTRODUCTION

A. Background Behind Problem
B. Focus Study
C. Formulation Problem
D. Benefit Results Study

CHAPTER II STUDY REFERENCES

A. Development Concept Model
B. Draft Model Which Developed
C. Framework Think
D. Model Design

CHAPTER III METHODOLOGY STUDY

A. Objective Study
B. Place And Time Study
C. Characteristics Model Which Developed
D. Approach And Method Study
E. Steps Development Model
    1. Study Introduction
    2. Planning Development Model
    3. Validation, Evaluation, And Revision Model

CHAPTER IV RESULTS STUDY AND DISCUSSION

A. Results Model Development
    1. Results Analysis Need
    2. Model Drafts 1
    3. Model Drafts 2 (etc.)
    4. Model Finals
B. Appropriateness Model (theoretical And empirical)
C. Effectiveness Model (through test try Which nature tentative)
D. Discussion

CHAPTER V CONCLUSION, IMPLICATIONS AND SUGGESTION

A. Conclusion
B. Implications
C. Suggestion

BIBLIOGRAPHY _
ATTACHMENT

Systematic

ExplanationCHAPTER I

INTRODUCTION

A. Background Behind Problem

The researcher explains the background of the problem in the form of: fact Which give information that model Which is being implemented yet effective in achieving goals based on the results of preliminary research. Problem can interpreted as gap between Which should or Which ideal with What Which There is in field. The background of the problem includes what, why, And How as well as For what model developed.

B. Focus Study

Researchers determine the focus of the problem based on the setting problem Which There is And stated in statement form

C. Formulation Problem

Researcher formulate problem related with model

Which will developed, oriented on theory development model Which stated in sentence question. The problem formulation is effort to put forward questions study in a way explicit Which will missed through development model.

D. Benefit Results Study

The researcher explains the usefulness of development research model For give solution alternative for fulfillment need user in frame enhancement quality education

CHAPTER II STUDY REFERENCES

A. Development Concept Model

Researcher describe in a way conceptual theory development model Which There is with analyze strengths and weaknesses of each theory. Researchers too explain the relevance of the selected model to draft model Which will developed. Furthermore, researcher elaborate steps model Which will developed

B. Draft Model Which Developed

Researcher describe draft Which underlying development model. Every model developed based paradigm/theory certain. On thesis minimum 3 (three) concept references. After describe And analyze a number of draft so researcher do synthesis For determine construct or

draft researcher about model Which will developed

C. Framework Think

Researcher write framework think started with describe a number of model Which There is with disclose excess, weakness, And difference with model Which developed researcher. Then, researcher do analysis effectiveness model Which will developed until Finally researcher determine choice model Which will developed on base theoretical support. If the model used adapted from model Which Already There is, so need explained reason choose model the For adapted or developed, components which customized, And connection intercomponents Which involved in development

D. Design Model

Researchers present design or design model in chart form (*flowchart*), accompanied by an explanation of the flow which exists on chart

CHAPTER III METHODOLOGY STUDY

A. Objective Study

Researcher explain objective study Which done. Objective study must in accordance with formulation study

B. Place And Time Study

Researchers describe where the research was conducted and time Which used during study start from preparation plan study (proposal) until

preparation report study That finished done

C. Characteristics Model Which Developed

Researcher describe characteristics target study Whichused as inner object development model.

D. Approach And Method Study

Researcher put forward approach And method Which used in develop model.

E. Steps Development Model

1. Study Introduction

   Researcher explained results research introduction form analysis need (*need assessment* t). Researcher Also explain that the resulting model is correct model in accordance with need (*based on need*), so that the explanation describes the model requirements the as answer on gap (*gap*) between circumstances Which should (*ideal*) with existing reality. In part This researcher Also explain method study Which used on studies introduction. Researcher Also explain instrument Which used as well as validation instrumentthe

2. Planning Development Model

   The researcher model design Which explained developed in the syntax . In form of planning model This researcher determine criteria quality model that includes validity, practicality, And effectiveness model. Researcher Also explain technique

used to measure the quality of the model. When use *expert judgment* , so must explained to what extent his involvement in development that model. On stage This Already generated design model Which Ready For validated.

3. Validation, Evaluation, And Revision

   ModelResearcher explain:

   a. Process and results of concept validation through expert review and/or panel
   b. Procedure And results test try model, including explain target test try model
   c. Evaluation procedures and results are based on trial data by explaining the evaluation techniques and criteria used
   d. Parts or component model Which must revised.
   e. Product model Which has revised.

   Furthermore on part This, researcher Also must explain about study, test try to group small, And test try to group big.

   a. Study Expert (*Expert Judgment*)

      Researcher explain procedure And results study expert Which done by para expert ie For look closely at the model has been generated, then they requested For give input about

model the. Based on input from para experts, the model was revised. The experts who have since beginning Already involved that's Which requested For pay close attention program/model.

b. Trial on small groups (*Small Group Try-out*)

Researcher serve procedure And results test try on group small, for example collect about 10up to 15 respondents(which are considered owncharacteristics Which The same with participant educate Whichwill become target target program or *playaudience*) to observe program broadcasts ,then they were asked to givecomments/input about the program developed. Based on inputs fromsmall groups this is a program revised. For example ifWhich become target mainly children age elementary school,so test try the program Also given to studentelementary school.

c. Test try to group big (*Field Try-out*)

Researcher explain procedure And results test try field. Contents explanation is test try done to a number respondents Which Lots with subject Which more heterogeneous.

If test try to para expert And group small Can done by party internal ones involved in activity study development, so test try field should done by

party outside. Matter This intended For guard objectivity of the resulting conclusions. Input from the results test try field here it is Which become base final for repair And improvement product. After repaired in accordance input from field, then the product is considered final and ready for implemented.

CHAPTER IV RESULTS STUDY AND DISCUSSION

A. Results Development Model

Researcher explain in a way deep, analysis about process model Which has developed in a way narrative. Results study described in subtitle Which load things Which listed on objective study, For describe that results study This can test effectiveness model.

The presentation of research results and discussion begins with giving description location study And characteristics respondents. Next with the resulting model and things Which in accordance For answer question study. Researcher serve hasi l study development with explain process development from drafts First until model final.

1. Results Analysis Need
2. Model Drafts 1
3. Model Drafts 2 (etc.)
4. Final Model

B. Appropriateness Model (theoretical And empirical)

Researchers present the process and results of model feasibility testing Which developed Good test theoretical nor empirical. The presentation of the results begins with describe method Which used in test appropriateness theoretical with explains the experts involved and the process the test, whereas For test empirical researcher explain object used for model testing. At the end of the explanation, researcher serve results testing Which state model Which developed worthy.

C. Effectiveness Model (through test try)

Researcher explain process And results evaluation effectiveness model based on data on moment implementation model with use criteria evaluation. On part This possible exists test hypothesis, especially If criteria Which used is norm with use design experiment, so results testing condition analysis statistics And results testing hypothesis For test effectiveness model explained on part This.

D. Discussion

Researcher discuss about factor supporter And inhibitor, both in development model or in implementation And dissemination model. Strength And weakness model Which produced, discussed And served in detail in section This.

CHAPTER V CONCLUSION, IMPLICATIONS AND SUGGESTION

A. Conclusion

Researcher put forward conclusion study Which covers model Which produced, as well as appropriateness And effectiveness use model the

B. Implications

Researcher serve implications study that is consequence logical use model resulting from for enhancement quality education.

C. Suggestion

Researcher convey suggestion in developing models education And learning What Which can taken through approach Study Development.

BIBLIOGRAPHY _

ATTACHMENT

4. Design research

Systematics Writing *Design Research*

CHAPTER I. INTRODUCTION

A. Background Behind the Problem
B. Formulation Problem
C. Restrictions Problem
D. Objective Study
E. Benefit Study

CHAPTER II. STUDY REFERENCES

A. Theory Which Relevant
B. Theory Instructional Local
C. Hypothesis Trajectory Study

CHAPTER III. METHODOLOGY STUDY

A. Objective Study
B. Place And Time Study
C. Method Study
D. Procedure *Design* Research *Research*
E. Source And Technique Collection Data
F. Validity And Reliability
   1. Validity internal And external
   2. Internal reliability And external

CHAPTER IV. RESULTS STUDY AND DISCUSSION

A. Description of Research Results
B. Analysis retrospective
C. Discussion

CHAPTER V. CONCLUSION AND SUGGESTION

A. Conclusion
B. Suggestio

n **BIBLIOGRAPHY**
ATTACHMENT

Systematic

ExplanationCHAPTER I

INTRODUCTION

A. Background Behind

On part this is a researcher explain background behind from problem Which want to researched. Researcher show his understanding about topic Which lifted with explain the results of relevant previous research as well as its relationship to the current conditions that will be studied so that *a gap* appears which is the forerunner of research question. Researchers provide reasons strong why this research is important to do and why researchers choose approaches/methods/strategies/ certain learning theories as alternative solutions to problems Which There is.

B. Formulation Problem

On part This, researcher formulate question study Which formulated based on background behind problem. Question written in form sentence ask Which clear.

Example:

In something study design on topic summation numbers using a number line, questions study can formulated become:

1. How model line number role in development of students' mental strategies when solvingquestion summation.
2. How role Teacher in support development process think student?
3. How context measurement can support students' understanding of adding numbers line number?

C. Restrictions Problem

Restrictions problem show limitation topic mathematics Which will researched as well as limitations regarding the tools or methods to be used. With exists restrictions problem expected analysis or discussion Which will researched become focus And deep.

D. Objective Study

On part This researcher explain the goal in do design research, that is For develop

theory learning And design instructional or design learning on something domain Which researched.

E. Benefit Study

Benefit results study is impact from achieved objective And he answered problem in a way accurate.

CHAPTER II LITERATURE REVIEW

A. Theory Which Relevant

In chapter This researcher explained theories Which the background to the research, namely the theory used to clarify and sharpen the scope or construct variable Which researched, as well as For formulate hypothesis And compile instrument study. Theory Also used For discuss results study so that used as base For give suggestion in effort solution problem.

B. Theory Instructional Local

The aim of a design research is: For develop theory instructional local, Which serves as an empirically proven theory about how a series of learning activities can be used in class For objective learning on something specific topic.

In A study design, theory instructional localstill in the form of a hypothesis consisting of (1) objectives learning; (2) learning activity plans and tools tool Which will used; as well as (3) hypothesis about

process learning Which explain possibility- possibility method think student moment involved in series of designed activities. More specifically, theory instructional local covers conjecture or hypothesis about process learning student in something class community accompanied by a continuum hypothesis learning activities as well as teaching aids and devices computers, as well as classroom culture and the proactive role of teachers Which allegedly can support achieved objective mathematics learning (Gravemeijer, 2004; Gravemeijer & Cobb, 2006).

C. Hypothesis Trajectory Study

Term hypothesis trajectory Study used by Simon (1995) with term *Hypothetical Learning Trajectory* (HLT). HLB actually is hypothesis Which made by researcher about process Study Which will happen during the implementation of learning in class. This hypothesis made For anticipate all possibility Which can appear in class, so that researcher can minimize unwanted things. Another thing that It is also important that the HLB is based on theory Which has been studied previously.

Difference between hypothesis trajectory Study And theory instructional local is that HLB giveplanning daily for Teacher And researcher about Suite activity in carry out experiment in class. Temporary That, theory instructional local give

description and rationale for learning design in a specific topics based on theory and research relevant.

In HLB, researchers explain learning activities what will be done. These learning activities are sequenced in accordance with the usual stages of understanding the concept contained in activities (Gravemeijer, 2004). HLB consists of from:

1. Objective, that is objective from activity learning Which done. The goal referred to here is what will achieved student in activity learning the.
2. Activity learning

   Carefully designed learning activities so that objective learning can achieved.
3. Conjecture process Study student

   Researchers guess at the beginning about how the activities will be learning will take place and the main thing is student learning process during these activities. With These conjectures, researchers can anticipate everything possibility in field.

CHAPTER III METHODOLOGY STUDY

A. Objective Study

On part This researcher explain the goal in do design research, that is For obtain

a local learning theory in a theoretical domain Which researched.

B. Place And Time Study

Researcher explain *settings* study Which covers characteristics subject Which researched as well as condition location study And time Which used during study start from preparation plan study (pre study) until preparation report study That finished done.

C. Method Study

This chapter provides an explanation of the research method Which used, that is study design, as well as step-steps taken by researchers in each phase of the research design.

D. Procedure Study

There are 3 stages carried out in design research. Third stage the is:

1. *Though Experiment* (Phase Preparation And Design)

   Core from phase preparation And design is researcher make design learning in accordance with objective learning Which want to achieved. For designing good, appropriate and effective learning, researchers need study relevant theories and research results, customized with condition class Which will researched. For Researchers also need to discuss intensively with teachers and fellow researchers. Apart from that, researchers too possible do observation class in class or in school Which will researched. Objective from

This observation is not only to determine initial abilities students also get to know the existing class culture awakened

2. *Teaching Experiment* (Implementation Phase)

   On phase This researcher do experiment learning in accordance with HLB Which Already made on phase preparation And design. Experiment learning on design research aim For investigate process Study in matter This process development method think student in situation And atmosphere Study Which formed from HLB.

   At this implementation stage, learning activities are: designed in HLB held in class. In here researcher study every moment learning Which happen, And investigate process think student Which awakened during learning taking place. How student will react on something activity has predicted in HLB, as for if on its implementation happen things Which Not yet predicted previously, so matter the will become findings Which will used when analyze activity learning the.

3. Phase Analysis Retrospective

   In the retrospective analysis phase, researchers compare HLB with the real student learning process. Analysis retrospective done based on data Which obtained Which has sorted in accordance order activity

learning. The focus of the analysis is limited to the question study Which submitted, so that can answer question the research.

This analysis combines several types of data different and compare it with the guess on HLB so that the resulting interpretation can be more appropriate. In addition, researchers are advised to ask experts to give its interpretation so that minimize subjectivity study. Results from analysis retrospective will contribute to the improvement of HLB for research furthermore.

E. Source And Technique Collection Data

Data study collected on phase experiment learning. As for data Which intended between other form recording videos learning, notes observation class, results Work student, recording audio from interview with Teacher And student And taking pictures activity Study. All data Which obtained registered in accordance order activity For makes it easier analysis on stage furthermore.

F. Validity And Reliability

1. Validity Internal

   Internal validity refers to the quality of the data collected And argumentation in taking conclusion. To ensure internal validity, several matter Which can done by researchers among others:

a. In analysis retrospective conjectures Which made in HLB tested with use several different types of data (recording transcripts videos, student work results, observation notes). This matter called also triangulation source.
b. Sequencing activity learning Which different carried out to test HLB in initial activities and next activities so that the process can be seen development think student that happened.
c. Analysis moment Study Which important done with use a number of framework theory (triangulation theory).

2. Validity External

   Validity external called Also generalization from results research, namely how the results obtained can be generalized And contributed from a context specific inward another context. Therefore, researchers need to report the results of their research (including in inside study theory, HLB, etc) with clear so that Other researchers can use the results of this research by making adjustments to local conditions local. Bakker (2004) say If A learning in A study can applied in other research successfully, then That an indicator from generalization.

3. Reliability Internal

Internal Reliability is concerned with internal reliability research, namely referring to the strength of the argument used in taking conclusion (Bakker, 2004). For this reason, researchers need to convey how process interpretation data done. For example with involve a number of expert in interpret data video transcript.

4. Reliability External

   External reliability means that research must documented with systematic so that can clear seen How study That done And How process withdrawal conclusion Which generated (Bakker, 2004). Wrong One criteria from external reliability is *"Trackability"* that is, readers can follow process Study Which happen in A study And reconstruct it onstudy other (Gravemeijer & Cobb, 2001). By Because That, every failure And success, reason in choose something in study, everything must join in reported.

CHAPTER IV RESULTS STUDY AND DISCUSSION

A. Description Results Study

On part This, researcher give description data results research in relation to the learning trajectory hypothesis Which has developed on phase First study. In matter This, data study outlined in a way general For

describe development process learning inclass.

B. Analysis Retrospective

When analyzing data, researchers select specific parts of the data the entire research data for further analysis research questions can be answered. In analyzing data, needed something framework interpretation based on theoretical domain to be able to analyze process developmentlearning in a classroom community. Analysis results data can be used either to get answers from question study nor For give recommendation for repairs more carry on.

Researchers use various data sources for analysis, for example video recording segments, worksheets, interviews with student And Teacher. Matter This important For ensure validity analysis. Besides That researcher Also should involve expert (student very recommended request opinion lecturer supervisor) in do analysis data so that avoid subjectivity.

C. Discussion

Part This discuss things Which happen outside expectations moment experiment teach. Part This explain why the researcher's hypothesis can be proven and why doesn't it happen in the classroom? Several factors areThis influences classroom culture and the role of the teacher Which proactive.

CHAPTER V CLOSING

A. Conclusion

Part conclusion give answer in a way more integrated from question study based on results analysis data on previous section.

B. Suggestion

Researcher report results his research in a way Honest And open, so that any deficiencies that occur are good at the moment the first phase or the second phase of the research can be lessons for future researchers. Some important things Which become material discussion can become material recommendations for further research. This part too can give explanation for Teacher so that can adapt results research with practice in class.

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ATTACHMENT

C. Part End

1. List References

Part this is in the form of a list of **all journal article and other literature referenced directly in the body writings** , except unpublished and non-published materials can obtained from the library. List The library follows Name-Year sequence in detail. If the library source is from The book elements are the author's name, year of publication, title book, city publishing And Name the publisher. If source References from Journal element the is Name author, year

publication, journal name, volume, number and pages. Journal name written italics, Name journal Which written on One say No abbreviated (eg Nature), However generally journal name written in form abbreviation. Abbreviation Name journal can referenced from the World List of Scientific Periodicals (Brown & Stratton 1963-1965). Technique writing based on APA (American Psychological Association) system Which can seen in www.apastyle.org/manua l .

2. Attachment

Part This preceded by One page with writing **ATTACHMENTS** in the middle of the typing field, without numbers page However still calculated. Part This can containing descriptions Which considered important For thesis, However If placed in text will bother legibility script the. All attachment given number massage, title And number page (continue from number page list References). All abbreviation must given explanation direct in page Which concerned, including symbols statistics. Attachment can in the form of:

a. Calculation analysis data
b. Outputs calculation software No need translated.
c. Photo activity study
d. *Ethical clearance* (For study Which use animalor man)
e. Letter permission study

3. List History Life

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CHAPTER IV
TECHNIQUE WRITING SCIENTIFIC

Chapter This discuss about rule writing thesis like kind paper and size, cover and binding, typing spacing, borders typing margins, typing new paragraphs, typing chapters, subchapters, And subchapter child.

A. Paper And Size

The thesis is typed on white paper size A4 (21 X 29.7 cm), with a weight of 80 gsm. When inside writing must use paper special, like paper millimeter for graphics, paper tracing for charts, and similar, or paper outside the specified size limit, then the paper the folded in accordance with size paper Which determined.

B. Type letter And Space Typing

Typing uses Times New Roman font size 12pt with 1.5 spacing between lines. Specifically for table title and image title consists of two line or Moreover, the distance between lines is one space. In the bibliography, distance between line in One References is One space, whereas distance between References is 1.5 space.

C. Limit Margins Typing

Manuscript typed flat left And right with limit margins typing specified script as following :

Margins above	: 3 cm	Margins left	: 4 cm
Margins bottom	: 3 cm	Margins right	: 3 cm

D. Paragraph Typing New

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E. Typing *Headings*

Typing headings follows the following rules:Headings 1

A. Headings 2
   1. Headings 3
      a) Headings 4
         (1) Headings 5

Chapter names are typed using capital letters with a distance of 3 cm from edge on paper. Number sort chapter written with letter Roman and placed in the middle of the paper above the name chapter. Typing the name and heading number starts from the left edge And bolded.

F. Writing Number on Table

Remove vertical guide lines when creating tables. Writing numbers without decimals use right alignment, and write numbers Which more small more Good than number Which big. Example

3.5×10^{6} is better than 3 500 000. 2.5×10^{-6} or 0.25×10^{-4} more Good from than 0.000025. Abbreviation can use unit Which state multiples example

1,000,000 is written as 1M and 0.000001 is written as 1µ. Size writing weight (biomass), volume follow writing unit international (Example mgL^{-1}).

CHAPTER V
TECHNIQUE REFERENCES REFERENCES

Reference References in writing work scientific (thesis),should writer look for source reference from References primary.Writing Which thorough about literature will make it easierreader in look for return source information Which has writtenin List References. Reference Which general done followsystem Name-Year (System Harvard) And System Number (SystemVancouver). On body writing work scientific, writer can refersThe library follows one of the two reference systems. Book Guide Writing Work Scientific FMIPA UNJ this was made with refers on system Name-Year, so that writingReferences from writing thesis Also refers on Guidelines This. On system Name-Year, Name author Which referred to in text(body writing) just Name family or Name end author Which followed year its publication.

Sources of information can be printed or electronic media. Source information from media print can in the form of: (1) Book entirely; (2) Chapter or section of a book; (3) Monograph; (4) Papers from journals or scientific meeting symposiums; (6) Thesis, Thesis and Dissertation; (7) Articles in journals; (8) Scientific articles in newspaper. Reference sources for electronic media can be (1) articles scientific knowledge from the internet; (2) films; (3) cassette recording. The following is stated example writing References from various source information.

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E. Part From book with author different

Jayasankar, Gray DJ. 2005. In vitro plant pathology. In the: Trigiano RN, Grey DJ, editor. Plants Development and Biotechnology. New York. CRC Press. p 293-299

Litz RE. 2009. Recovery of mango plants with anthracnose resistance following mutation induction and selection *in vitro* with the culture filtrate of Colletotrichum gloesporioides Penz. In in: IAEA, editor. Induced Mutations in Tropical Fruit Trees. Vienna. p 7-13

Dhiman M, Rautela I. 2014. Biotechnological Approaches Towards Micropropagation and Conservation of Cycads and Ephedrales In in: Ahuja M.R., Ramawat K.G., editor. Biotechnology and Biodiversity. Springer Cham Heidelberg. p 247-270.

F. References from thesis

Masykuroh L. 2016. Mutation induction in banana (*Musa* spp. - ABB) CV. Kepok with gamma irradiation in vitro [thesis]. Jakarta: Faculty of Mathematics and Natural Sciences. University Country Jakarta

G. Article in meeting scientific (proceeding)

Suyamto, Djatnika I, Sutanto A. 2004. Banana R&D in Indonesia: Updated and highlights. In the: Molina AB et al. editor. Advancing Banana and Plantain R&D in Asia and the Pacific – Vol. 13. Proceedings of the 3rd BAPNET Steering Committee. Guangzhou, China. Nov. 23-26. 2004. p 81-88

Sutarto I, Meldia Y, Jumjunidang. 1998. Selection of resistance mutants Yellow Ambon bananas against Fusarium Wilt disease. In in: Sohadi F, editor. Meeting Scientific Study And Isotope and Radiation Application Development. Jakarta 18-19 Feb 1998. Jakarta. BATAN, p. 123-128.

H. Article from publication electronic

Mak C, Ho YW, Liew KW, Asif JM. 2004. Biotechnology and *in vitro* mutagenesis for bananas improvement. In in: Jains SM, Swensen R, editor. Banana Improvement: Cellulular, Molecular Biology, and Induced Mutations. Enfield, Sci. Publ. Inc., p 54-73. http://www.fao.org/docrep/007/ae216e/ae216e08.htm#bm08 . [May 26 2007]

CHAPTER VI
TECHNIQUE WRITING ARTICLE SCIENTIFIC

A. Abstract

On beginning paragraphs make it sentence introduction (*introduction sentences*) as much One or two sentence. State the research objectives and specific targets you want to achieve as well as the methods used to achieve these goals. The abstract must be able to explain carefully and briefly about proposed activities and research results obtained by concise and logical.

B. Introduction

Introduction includes research background, brief theory that supports this research being carried out, and **the urgency (priority) research** . **Objective research** , **Benefit Study** (Explain benefit research general and special).

C. Methodology research

In this section, explain the method and experimental design carried out, implementation of experiments, data collection techniques, variables/parameters What Which observed outlined with detailed. Procedure study (implementation study) must made in a way intact with stages Which clear, start from where, How the outside, and indicators achievements measurable

D. Results And discussion

Bring it up results And discussion in a way concise However comprehensive with refers on data Which obtained And relevant literature supports or differs from the results your research. In this chapter at least 5 (five) things can be explaineddata Which can in the form of a table and Images.

E. Conclusion

Made concisely and communicatively, put forward a conclusion You in a way concise based on results study Which referson the title and research objectives. Writing conclusions can be in the form of: sentence with several paragraphs or numbering.

F. Saying Accept Love

Saying accept love addressed to **leader institution, institution study, institution government, or personal Whichhas help in study in a way direct nor No straight away** . Example: Accept love addressed to Dr. Tajuddin M.Sc. from Garden Raya Bogor - Institution Knowledge Indonesian Knowledge (LIPI) has provided leaf samples decorative plants. To the staff and technicians of the Analytical Chemistry Laboratory FMIPA UNJ And LIPI Cibinong. Saying accept love to faculty leader or supervisor on a **scientific paper / article** results study **no need to submit**)

G. List References

Arranged based on name and year system, in order alphabet Name author, year, title of article, and source. Only the literature cited in the thesis text is included in List References).

Attachment 1 Example Page Cover THESIS (ink gold)

DIFFERENCES IN APPLICATION OF CONCEPTUAL MODELS UNDERSTANDING PROCEDURES(CUPS) AND CONCEPT ATTAINMENT MODEL TOWARDS REDUCTION OF MISCONCEPTIONSSTUDENTS ON MATERIAL DIGESTIVE SYSTEM

(TNR, fonts 16, 1 space)

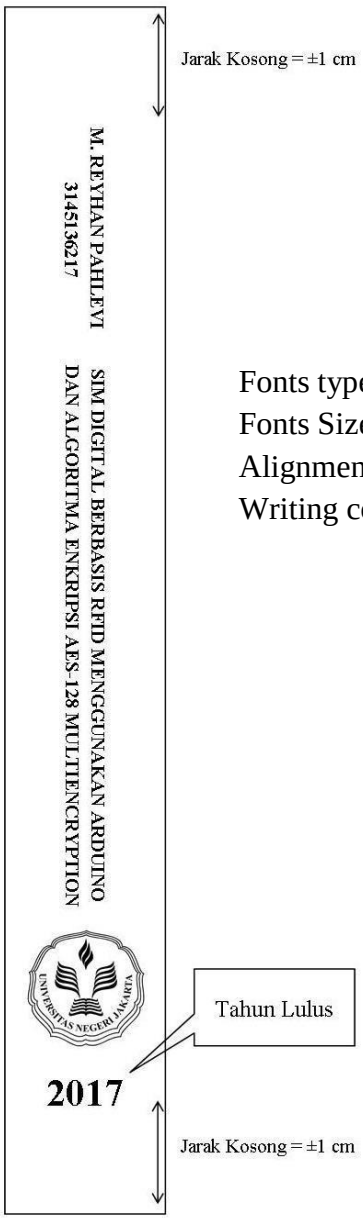
Thesis
Arranged to fulfill one of the requirementsobtain title Bachelor Education

Diameter 3

Bi Khairunissa
No registration
(TNR fonts 14, 1 space)

PROGRAM STUDIES EDUCATION BIOLOGY
FACULTY MATHEMATICS AND KNOWLEDGE KNOWLEDGE NATURAL
UNIVERSITY COUNTRY JAKARTA
(TNR fonts 14, 1 sapsi)
2014
(Font 12, 1 space)

Attachment 2 Example Back Cover



Fonts type : Times New Roman
Fonts Size : 10 pt
Alignment : Center
Writing color : Gold

Appendix 3 Example Title page (ink black)

DIFFERENCES IN APPLICATION OF CONCEPTUAL MODELS UNDERSTANDING PROCEDURES(CUPS) AND CONCEPT ATTAINMENT MODEL TOWARDS REDUCTION OF MISCONCEPTIONSSTUDENTS ON MATERIAL DIGESTIVE SYSTEM
(TNR, fonts 16, 1 space)

Thesis

Arranged to fulfill one of the requirementsobtain title Bachelor Education

Diameter 3 cm

Dwi Khairunissa
Registration no
(TNR font 14, 1 space)

BIOLOGY EDUCATIONAL STUDY PROGRAM
FACULTY MATHEMATICS AND KNOWLEDGE KNOWLEDGE NATURAL
UNIVERSITY COUNTRY JAKARTA
(TNR font 14, 1 sapsi)
2014
(Font 12, 1 space)

Attachment 4 Example Sheet Endorsement

PERSETUJUAN PANITIA UJIAN SKRIPSI

UPAYA MENINGKATKAN KEMAMPUAN PEMECAHAN MASALAH MATEMATIS MELALUI PENERAPAN PENDEKATAN (*Model Eliciting Activities)* MEAs DENGAN MODEL PEMBELAJARAN *STAD* PADA MATERI BANGUN RUANG SISI LENGKUNG DI KELAS IX-2 SMPN 216 JAKARTA

Nama : Ai Megawati
No. Registrasi : 3115102294

	Nama	Tanda Tangan	Tanggal
Penanggung Jawab:			
Dekan	: Prof. Dr. Suyono, M.Si. NIP. 19671218 199303 1 005	.....	18-02-15
Wakil Penanggung Jawab:			
Pembantu Dekan 1	: Dr. Muktiningsih N., M.Si. NIP. 19640511 198903 2 001	.....	18-02-15
Ketua Penguji	: Ir. Fariani Hermin, M.T NIP. 19600211 198703 2 001	.....	26-01-15
Sekretaris	: Ratna Widyati, S.Si., M.Kom NIP. 19750925 200212 2 002	.....	30-01-15
Anggota:			
Pembimbing I	: Dr. Anton Noornia, M.Pd NIP. 19660414 199102 1 001	.....	11-02-15
Pembimbing II	: Dra. Suprakarti, M.Pd NIP. 19590530 198210 2 001	.....	11-02-15
Penguji Ahli	: Drs. Swida Purwanto, M.Pd NIP. 19640616 198903 1 007	.....	27-01-15

Dinyatakan lulus ujian skripsi tanggal 14 Januari 2015

Attachment 5 Example Page Statement Originality

SHEET STATEMENT

I declare truly that the thesis withtitle "Difference Application Model *Conceptual Understanding Procedures* (CUPs) and *Concept Attainment Model* (CAM) Against Reducing Student Misconceptions on Digestive System Material." prepared as a requirement for obtaining a Bachelor of Education degree from the Study Program Biology Education State University of Jakarta is my work with instruction from lecturer mentor.

Source information mentioned in text or quoted from other authors who have been published are included in List References in part end thesis This in accordance with norm, rules and ethics of scientific writing in general and provisions applies at at the University Jakarta State.

If later day found part big thesis This not my own work in certain parts, I willing accept penalty revocation title academic Which I sanding And sanctions other in accordance with regulation legislation Which applies.

Jakarta,.....
Stamp duty Rp.
6000 Name
student

Attachment 6 Example Page Say Introduction

SAY INTRODUCTION

(max. 2 page - made in the form of paragraph)

Praise I'm grateful writer climb it to presence Allah SWT on all His grace so that this scientific work can be successfully completed. Work scientific Which title "Development Videos Chemistry *On line* Based Learning Contextual Class XI on Material Sour Basa" This arranged as task end For get title Bachelor of Education (S.Pd)

Accept thanks to Dr. Maria Paristiowati, M.Si and Dr. Diana Vivanti, M.Si as supervisor I and supervisor II who have taken the time to provide input and suggestions. Accept love also to Mentor Academic Dr. Esmar Budi, M.Sc who has guided the author academically while studying at UNJ Chemistry Education Study Program. Besides that, awards the author conveyed to Dra. Suprakarti, M.Pd as Coordinator Chemistry Education Study Program, Dr. Muktiningsih, M.Si as Deputy Dean 1, and Dean of FMIPA UNJ Prof. Dr. Suyono, M.Si Yang has help during writer finish studies. No forget accept love writer say to MAN 3 Jakarta Which has facilitate means and infrastructure during study done.

The author would like to express his thanks to Father, Mother, and the entire family for all their prayers and love. Writer I would also like to thank my friends from the class of 2013 on help And his friendship. Finally writer hope, hopefully it works this scientific beneficial.

Jakarta, February 2016

Wanda Amelia Rahma

Attachment 7 Example Page ABSTRACT (Language Indonesia)

ABSTRACT

WANDA AMELIA RAHMA. *Online* Chemistry Video Development Based Learning Contextual Class XI on Material Sour Basa. Thesis, Chemistry Education Study Program, Faculty of Mathematics And Knowledge Science, University Country Jakarta. October 2016.

(Student's name in capital and bold. Thesis title. TypeScientific work, Study Program Name, Faculty Name, Name University. Month And Year)

In this abstract section, put forward the opening words or description general research that has been carried out. Research objectives, methods used to achieve these goals. The research results obtained And target special Which has achieved. Abstract must able to explain clearly and concisely the research results in a way comprehensive.

(Font TNR 12, 1 space, in 1 paragraph,

Say key *Videos chemistry on line, learning contextual, sourbase.*

(Is say key Which makes it easier reader find articles written. Use keywords that are not in the title study).

Attachment 8 Example Page ABSTRACT (Language English)

ABSTRACT

WANDA AMELIA RAHMA. Development of Chemistry Online Video Based on Contextual Learning for K-11 Students on Material AC ID Base. Mini Thesis, Chemistry Education, Faculty of Mathematics and Natural Sciences, University Country Jakarta. October 2016.

(write abstract in English)

(Font TNR 12, 1 space, in 1 paragraph, max. 1 page)

Keywords . *Chemical mutation, Coelogyne sp, orchid plants, lethal dose*

Attachment 9 Example List Contents

LIST
CONTENTS

Appendix 10 Example List Table

LIST TABLE

Attachment 11 Example List Picture

LIST PICTURE

Page No

etc

Attachment 12 Example List Attachment

LIST ATTACHMENT

Attachment 13 Example Writing Article Scientific

USES OF *ETHYL METHANESULFONATE* (EMS) FOR GET MUTANTS PLANT DECORATIVE WITH DIVERSITY TALL(Font 12 TNR)

(*Write Title in English*)

Bi Khairunissa [1)] , Adisyahputra [2)] , Yusmaniar [1)*]

** [2] Biology Study Programs FMIPA Jakarta State University*
Corresponding author: Program Studies Chemistry FMIPA University Country Jakarta
Jl. Youth No. 10 Rawamangun, East Jakarta. Indonesia. 13220
Tel.: +62 21 4894909
E-mail address: Yusmaniar@gmail.com .
Institution, Address, City, Code Post <TNR 10, italics>

ABSTRACT (TITLE TNR 12 Bold)

(Language English And Indonesian. max 200 say, typed distance1 space, 1 paragraph, Text abstract TNR 12).

<1 space>

Say key: TNR 11, italics, maximum 5 say key, say key shouldNo use sentences Which There is in title, letter small

INTRODUCTION (Title Fonts 12 TNR Bold)
(max 2 page, typed distance 1 space, text fonts 11 TNR)

Introduction covers background behind study, theory summary that supports this research, and ***its importance study This done*** *. Objective study And benefit study.*

METHODOLOGY STUDY (TNR title 12 Bold)

Text < TNR 11, regular>

RESULTS AND DISCUSSION < **Title TNR 12 bold** >

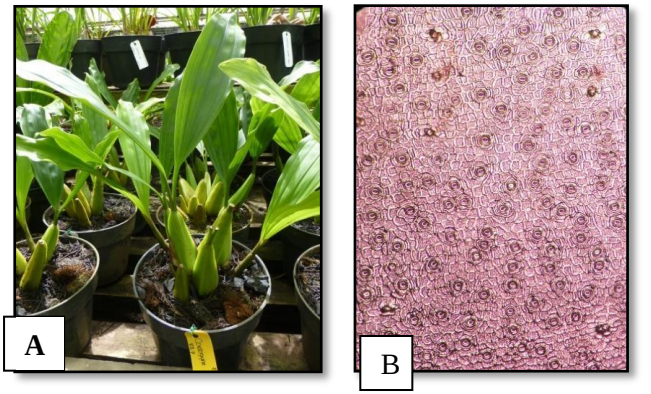
Text < TNR 11, regular>

Table 1. Title Table < TNR 11 , regular> *Table Creation No permitted to use line help vertical*

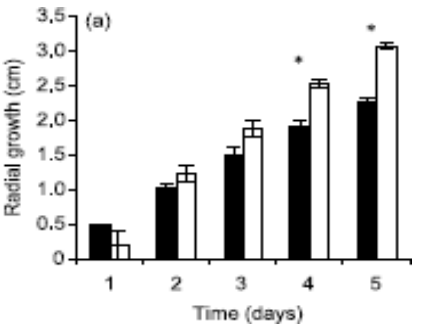
EXAMPLE:
Table 1. Average density stomata leaf orchid results treatment EMSage 32 Sunday after acclimatization.

Concentration EMS(%)	N	Density stomata (amount stomata per mm ^{2})			
		Average		Min.Max.	
0	10	160.70	a	126	198
5	6	125.50	BC	104	177
10	15	115.88	c	82	164
15	15	129.93	BC	94	156
20	8	128.25	BC	104	161
25	10	157.30	a	118	218
30	16	146.06	ab	98	178

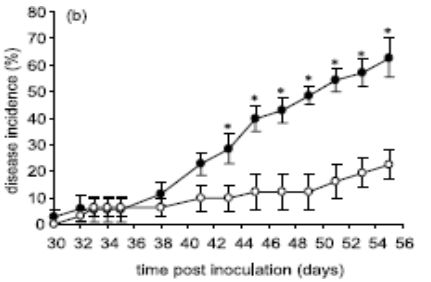
Information. Number Which followed by letter Which The same in column Which The sameNo different real on level 5% through test DMRT. 1Footnotes
<TNR10, regular>



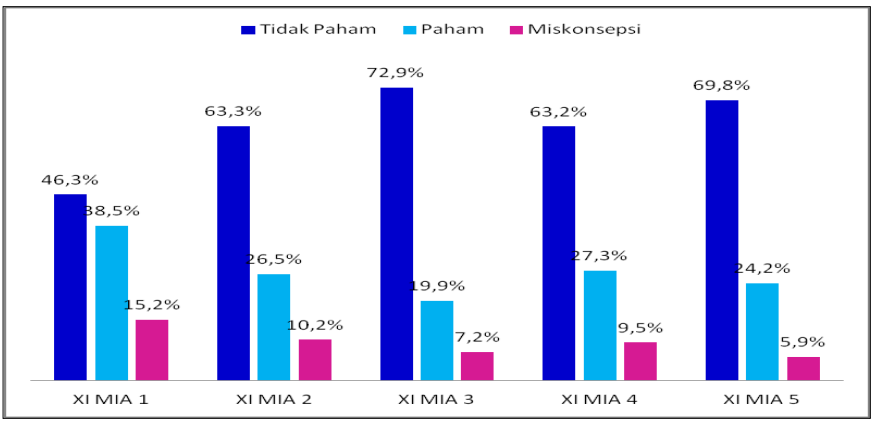
Picture 1. (a) Plant And (b) leaf stomata orchid *Coelogyne sp* with magnification 100x.



Picture 2. Growth leaf red (cm) plant orchid resultsinduction mutation with Ethyl methanesulfonate



Picture 3. Percentage incident disease (%) 30 – 56 day after inoculation



Picture 7. Percentage Level Understanding Beginning Student

CONCLUSION < Title TNR, 12 bold>

Text < TNR 11, regular>

Chapter This made for answer objective study, made concisely and communicative based on research results refers to the research objectives. Conclusions can be made in paragraph form or with numbering.

SAYING THANK YOU <Title TNR, 12 bold>

Text < TNR 11, regular>

Saying accept love addressed to ***leader institution, research institutions, government agencies, or personal who have help in study in a way direct nor No straight away*** *.*

LIST REFERENCES < Title TNR, 12 Bold)

Text < TNR 11, regular>

Arranged based on name and year system, in order alphabet Name author, year, title writing, And source. Onlythe literature ***cited*** *in the thesis is included in the List References.*

Attachment 14 Example Writing References

JOURNAL
Writer One Person

Damayanti F. 2007. Analysis of chromosome number and stomatal anatomy on a number of plasma cum banana (*Moses* spp) origin Kalimantan East. *Bioscientiae* . 4 (2): 53-61.

Jains BC. 2010. *In vitro* mutagenesis in bananas (*Moses* spp).
Improvements. *Acta Hort.* 879: 605-614

Writer 2 Person

Hetherington AM, Woodward FI. 2003. The roles of stomata in sensing and driving environmental change. *Nature* . 424:901-908. www.nature.com/nature [Dec. 11 2010]

Heslop-Harrison JS, Schwarzacher T. 2007. Domestication, genomics and the future for bananas. *Reviews* . *Ann. of Bots* . 100:1073–1084

Simonson, S. R., & Shadle, S. E. 2013. Implementing Process Oriented Guided Inquiry Learning (POGIL) in Undergraduate Biomechanics: Lessons Learned by A Novices. *Journal of STEM Education: Innovations & Research,* 14(1): 36-45

Writer 3-7 Person

Hakim, Aliefman, Liliasari, and Asep Kadarohman. 2012. Students Concept Understanding of Natural Products Chemistry in Primary and Secondary Metabolites Using the Data Collecting Technique of Modified CRI, *International Online Journal of Educational Sciences* . 4 (3): 544-553

Hassan, S., Bagayoko, and Kelly. 1999. Misconceptions and the Certainty of Response Index (CRI), *Journal of Phys. Educ* . 5 (34): 294-299

Sugimoto H., Kusumi K, Tozawa Y Yazaki J, Kishimoto N, Kikuchi S, Pity K. _ 2004. *The virescent-2* Mutations Inhibition Translation of Plastid Transcripts for the Plastic Genetic System at an Early Stage of Chloroplast Differentiation. *Plant Cells Physiol* 45(8): 985-996.

Jumjunidang, Nasir N, Riska, Handayani H. 2005. Testing techniques *in vitro* resilience banana to disease withered *Fusarium* using toxin filtrate from *Fusarium oxysporum* f culture. sp. c *ubense. J. Hort.* 15(2):135-139

Article without Author

[Anonymous]. 1976. Epidemiology for primary health care. *Int . J. Epidemic* 5: 224-225

BOOK WITH AUTHOR

Hamzah, B. Uno. 2006. *Orientation New in Psychology Learning* , Jakarta. Literary Earth.

Khirwadkhar, Anjali. 2007. *Teaching of Chemistry Modern Method* . New Delhi. Sarup And Sons

lie, Anita. 2001. *Cooperative Learning* . Jakarta: Grasindo

Calderon JF, EC Gonzales. 1993. *Methods of Research and Thesis Writing* . Manila. National Book Store.

Heldt HW, Heldt F., 2005. *Plant Biochemistry* . Ed. the 3rd. Amsterdam. Elsevier Acad. Press .

Nasution AH 1992. *Guide Think And Research in a way Scientific for Teenagers* . Jakarta. Gramedia Wisiasarana.

BOOK TRANSLATION WITH EDITOR

Pelczar MJJr, Chan ECS. 1986. *Basics of Microbiology* . Volume 1st,2nd Hadioetomo RS, Imas T, Tjitrosomo SS, Angka SL, translator; Jakarta: UI Pr. Translation of: *Elements of Microbiology.*

Agrios GN. 1996. *Plant Disease Science* . Ed. The 3rd. Busnia M, Martoredjo T., translator. Yogyakarta: UGM Pres. Translation from: *Plant Pathology* .

BOOK WITH INSTITUTION/ORGANIZATION AS AUTHOR

[CPM] Bureau Center Statistics. 2016. Production of Ornamental Plants inIndonesia. Horty. Statistics. http://www.bps.co.id [22 Jan 2016]

[Ministry of National Education] Department Education National. 2002. Decision Minister Education National Republic Indonesia Number 045/U/2002 concerning the Core Curriculum for Higher Education. Jakarta: Ministry of National Education.

[IAEA] International Atomic Energy Agency. 2009. *Induced mutation in tropical fruits trees* . Plants breeding and genetics sections. Vienna. IAEA-TECDOC-1615

[INIBAP] International Network for the Improvement of Banana and Plantain. 2000. Bananas. International Plant Genetic Resources Institute. http://bananas.bioversityinternational.org/files/files/pdf/ publicationbrochure_bananas.pdf . [14 April 2011]

PARTS OF THE BOOK WITH THE AUTHOR DIFFERENT

Jayasankar, Gray DJ. 2005. *In vitro* plant pathology. In the: Trigiano RN, Grey DJ, editor. *Plants Development and Biotechnology* . New York. CRC Press. pp. 293-299

Litz RE. 2009. Recovery of mango plants with anthracnose resistance following mutation induction and selection in vitro with the culture filtrate of C *olletotrichum gloesporioides* Penz. In: IAEA, editor. *Induced Mutations in Tropical Fruits Trees* . Vienna. pp. 7-13

REFERENCES from THESIS

Masykuroh L. 2016. Mutation induction in banana (*Musa* spp. - ABB) CV. Kepok with gamma irradiation *in vitro* [thesis]. Jakarta: Faculty of Mathematics and Natural Sciences. University Country Jakarta

Goddess, SNR 2015 difference application model *conceptual understanding procedures* (cups) and *concept attainment model* (cam) towards reducing students' misconceptions about system material digestion [Thesis]. Jakarta: Faculty of Mathematics and Science Knowledge Natural. University Jakarta State

ARTICLE IN MEETING ILIMAH (*PROCEEDINGS*)

Hikmat, Yuyu R. Tarubi, Unang Purwana, and Andi Suhandi. 2014. Cognitive Conflict Strategy Assisted by Virtual Simulation Media in Learning Physics Oriented AlterationConceptual For Increase Understanding Draft And lower Quantity Student Which Misconceptions. *Proceedings Meeting Scientific XXVIII HFI Central Java & DIY* . Yogyakarta. 342-347

Suyamto, Djatnika I, Sutanto A. 2004. Banana R&D in Indonesia: Updated and highlights. In the: Molina AB *et al* . editor. Advancing Banana and Plantain R&D in Asia and the Pacific – Vol. 13. *Proceedings of the 3rd BAPNET Steering Committee* . Guangzhou, China. 23-26 Nov. 2004. p 81-88

Sutarto I, Meldia Y, Jumjunidang. 1998. Selection of resistance mutants Yellow Ambon bananas against Fusarium Wilt disease. In in: Sohadi F, editor. Meeting Scientific Study And Isotope and Radiation Application Development. Jakarta 18-19 Feb 1998. Jakarta. BATAN, p. 123-128 .

ARTICLE FROM PUBLICATION ELECTRONIC

Mak C, Ho YW, Liew KW, Asif JM. 2004 . Biotechnology and *in vitro* mutagenesis for banana improvement. In: Jain SM, Swensen R, editor. *Bananas Improvements: Cellular, Molecular Biology, and Induced Mutations* . Enfield, Sci. Publ. Inc., p 54-73. http://www.fao.org/docrep/007/ae216e/ae216e08. htm#bm08 . [May 26, 2007]

Fulton, Kathleen. 2012. Upside Down and Inside Out: Flip Your Classroom to Improve Student Learning. *Learning & Leading with Technology* . pp.56-64Retrieved from: http://thejournal.com/articles/2012/04/11/the-flippedclassroom.aspx

Attachment 15 Example Page HISTORY LIFE

HISTORY LIFE

The author was born in Jakarta on April 18 1995 father Drs. Suradiredja and Mrs. Dian Suriyani. The author is a princess first of two brothers.

In 2012 the author graduated from SMA Negeri 1 Yogyakarta and on year Which The same passed selection enter UNJ through track Invitation. Writer choose Program Studies Chemistry, Faculty Mathematics and Science Science.

While attending lectures, the author became an eye assistant studying chemistry organic on year teachings 2010/2011. On year 2011/2012 writer get grant study PKM student level National.

Attachment 16 Example Proposal Evaluation Hearing Thesis

1. FORM EVALUATION EXAM END THESIS

Name Student : ....
No Reg. : ....

Criteria Evaluation	Weight (%)	Score	Mark
1. APPROPRIATENESS MATERIAL STUDY : a. Strategic level and scale the problem you want to solveprogram study Which proposed. b. Sharpness formulation problem. c. Objective Study d. Benefit study Which can applied. e. Wholeness Channel Study	20		
2. METHOD STUDY	20		
3. RESULTS and DISCUSSION (Techniques for writing data in tables andimages, suitability of research data and discussion)	20		
4. WRITING THESIS ACCORDINGLYWHOLE	20		
5. METHOD MAINTAIN THESIS (Communicative presentation, PPT, method answer questions, attitudes and argumentsresearcher to results Which obtained)	20		
Amount	100		

Jakarta, …… 20……

Buku Pedoman Penulisan

Buku "Pedoman Penulisan Skripsi" ini adalah salah satu bentuk layanan yang diberikan oleh Fakultas Matematika dan Ilmu pengetahuan Alam Universitas Negeri Jakarta kepada mahasiswa/i yang sedang menyelesaikan tugas akhir sebagai salah satu syarat menyelesaikan jenjang pendidikan strata satu.

Dengan diterbitkannya buku "Pedoman Penulisan Sripsi" ini diharapkan dapat meningkatkan standar dan kualitas penulisan skripsi mahasiswa/i program sarjana di Fakultas Matematika dan Ilmu Pengetahuan Alam Universitas Negeri Jakarta yang sesuai kaidah ilmiah.