

**MATHEMATICS LEARNING EXPERIMENT ON GUIDED INQUIRY
METHOD AND OPEN-ENDED METHOD VIEWED FROM STUDENT'S
CRITICAL THINKING ABILITY IN GRADE VII OF SMP N 1
SURAKARTA**



RESEARCH PAPER

**Submitted as a Partial Fulfillment of the Requirements
for Getting Bachelor Degree of Education
In Mathematics Department**

by

SRI ADININGSIH

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**SCHOOL OF TEACHER TRAINING AND EDUCATION
MUHAMMADIYAH UNIVERSITY OF SURAKARTA**

2013

APPROVAL

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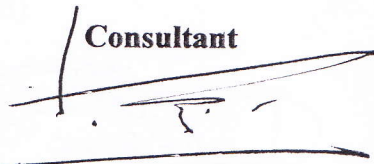
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MATHEMATICS LEARNING EXPERIMENT ON GUIDED INQUIRY METHOD AND OPEN-ENDED METHOD VIEWED FROM STUDENT'S CRITICAL THINKING ABILITY IN GRADE VII OF SMP N 1 SURAKARTA

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TESTIMONY

I testify that in this research paper, there is no plagiarism of the previous study which has been raised to obtain bachelor degree of a university, nor there are opinions or masterpieces which have been written and published by others, except the written references which are referred in this research paper and mentioned in the bibliography. Hence, if it is proven that there is untrue statement in this testimony, I will be fully responsible.

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MOTTO

*“Make patience and prayers as helpers. And indeed such a very heavy, except for
those that humility”*

(Q.8. Al Baqarah : 45)

“Always think positive”

(The Writer)

“Nothing is impossible”

(The Writer)

DEDICATION

With love this research is dedicated to :

- ♥ *My Lord, Allah SWT*
- ♥ *My beloved and respectable My Father (Tri Rahayu) for his support, patient and affection*
- ♥ *My beloved and respectable My Mother (Istiqah) for her prayer, love, affection and advice*
- ♥ *My beloved My sisters (Yulis Aryanti and Kurnia Sari Ambari)*
- ♥ *My beloved (alm) My Grandmother*
- ♥ *My beloved all of My Best Friend in Mathematics '09 RSB*

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7. All those who have helped the finished the writing of this paper, the writer can not mention one by one.

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Surakarta,

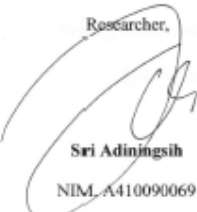
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ABSTRACT

MATHEMATICS LEARNING EXPERIMENT ON GUIDED INQUIRY METHOD AND OPEN-ENDED METHOD VIEWED FROM STUDENT'S CRITICAL THINKING ABILITY IN GRADE VII OF SMP N 1 SURAKARTA

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This research paper aims to know (1) the difference learning achievement between Guided Inquiry method and Open-Ended method in mathematics learning on the subject of Set, (2) the difference learning achievement viewed from student's critical thinking ability in mathematics learning on the subject of Set, (3) the interaction between Guided Inquiry method and student's critical thinking ability in mathematics learning against learning achievement learning on the subject of Set. Population of the research is all of students in grade VII of SMP N 1 Surakarta academic year 2012/2013 consist of 8 classes. The research sample is taken two classes, i.e. grade VII G consist of 26 students be experiment class using Guided Inquiry learning and grade VII H consist of 24 students be control class using Open-Ended learning. Type of research is experimental research with methods of collecting data using test, questionnaire and documentation. Prerequisites test this research using normality test and homogeneity test. In this research use Two Way Analysis of Variance. The result of hypothesis testing using $\alpha=5\%$ it show that (1) $F_{obs}=0,013 < F_{table}=4,064$ so H_0 accepted, it means there isn't difference of learning methods to mathematics achievement on the subject of Set, (2) $F_{obs}=5,008 > F_{table}=3,214$ so H_0 rejected, it means there is difference of student's critical thinking to mathematics achievement on the subject of Set, (3) $F_{obs}=0,107 < F_{table}=3,214$ so H_0 accepted, it means there aren't interaction between learning methods and student's critical thinking to mathematics achievement on the subject of Set.

Key words : Guide-Inquiry, Open-Ended, Critical Thinking, Set