CONTENTS

CHAPTER I
INTRODUCTION
1.1.Background 1
1.2.Problem Identification 7
1.3.Problem Limitation 8
1.4.Problem Formulation 8
1.5.Research Objectives 8
1.6.Research Benefit 9
1.7.Operational Definition 9

CHAPTER II
LITERATURE REVIEW
2.1.Theoretical Framework 11
   2.1.1. Learning understanding 11
   2.1.2. Mathematical Reasoning Ability 13
   2.1.3. Kinds of Reasoning 15
      2.1.3.1. Inductive Reasoning 15
      2.1.3.2. Deductive reasoning 17
   2.1.4. Indicator of Mathematical Reasoning 18
   2.1.5. Metacomponents of Mathematical Reasoning 19
   2.1.6. Reasoning With Mathematical Analogues 21
   2.1.7. Reasoning By Analogy In Solving Problems 22
   2.1.8. Learning Strategies 22
      2.1.8.1. Inquiry learning strategy 22
      2.1.8.2. Expository Learning Strategy 29
   2.1.9. Linear System Of Two Variables 32
2.2.Research Hypothesis 35


CHAPTER III
RESEARCH METHODOLOGY

3.1. Location and Time Research 36
   3.1.1. Population and Research Sample 36

3.2. Variable of Research 36
   3.2.1. Independent variable 36

3.3. Research Instrument 37

3.4. Types of Research 37

3.5. Research Design 37

3.6. Research procedures 38

3.7. Data Collection Techniques 40
   3.7.1. The validity of the test 40
   3.7.2. Reliability test 40
   3.7.3. The level of questions difficulty 41
   3.7.4. Differential Power 42
   3.7.5. Tests of mathematical reasoning abilities 44
   3.7.6. Analysis of reasoning abilities 46

3.8. Data Analysis Techniques 47
   3.8.1. Normality test 48
   3.8.2. Homogeneity test 48

CHAPTER IV
RESULTS AND DISCUSSIONS

4.1. Research Result Description 52
   4.1.1. Understanding of Mathematical concept Ability Test 52
   4.1.2. The description of Students Logical Reasoning 53

4.2. Analysis of Research Data 54
   4.2.1. Analysis of Logical Reasoning Test 54

4.3. Research Discussion 58
CHAPTER V
CONCLUSION AND SUGGESTION

5.1. Conclusion 62
5.2. Suggestion 62

REFERENCE