

CONTENT LIST

| | |
|--|------------|
| APPROVED PAPER | <i>i</i> |
| BIOGRAPHY | <i>ii</i> |
| ABSTRACT..... | <i>iii</i> |
| ACKNOWLEDGEMENT | <i>iv</i> |
| CONTENT LIST..... | <i>vi</i> |
| LIST OF FIGURE | <i>ix</i> |
| LIST OF TABLE | <i>x</i> |
| LIST OF APPENDIX | <i>xi</i> |
| CHAPTER I | 1 |
| 1.1. Background | 1 |
| 1.2. Problem Identification | 7 |
| 1.3. Problem Formulation | 8 |
| 1.4. Problem Limitation | 8 |
| 1.5. The Objectives of Research | 8 |
| 1.6. The Benefit of Research..... | 8 |
| 1.7. Operational Definition | 9 |
| CHAPTER II..... | 11 |
| 2.1. Learning Communication | 11 |
| 2.2. Mathematical Communication Ability | 12 |
| 2.2.1. Aspect of Communication..... | 13 |
| 2.2.2. Factors of Mathematical Communication | 15 |
| 2.3. Cooperative Learning Model | 16 |
| 2.3.1. Definition of Cooperative Learning | 16 |
| 2.3.2. Characteristics of Cooperative learning | 17 |
| 2.3.3. Syntax of Cooperative Learning..... | 18 |
| 2.3.4. The Benefit of Cooperative Learning..... | 18 |
| 2.3.5. Cooperative Learning Type Talking Stick | 19 |

| | |
|---|----|
| 2.3.6. Cooperative Learning Type Cooperative Script..... | 20 |
| 2.4.Relevant Research..... | 20 |
| 2.5.Conceptual Framework..... | 21 |
| 2.6.Hypothesis..... | 23 |
| CHAPTER III | 24 |
| 3.1.Place and Time of Research..... | 24 |
| 3.2.Population and Sample..... | 24 |
| 4.1.1 Population..... | 24 |
| 4.1.2 Sample..... | 24 |
| 3.3.Variable and Instrument of Research..... | 25 |
| 3.3.1. Variable of Research..... | 25 |
| 3.3.2. Instrument of Research..... | 25 |
| 1. Mathematical Communication Ability Test..... | 25 |
| 2. Mathematical Communication Scoring..... | 27 |
| 3. Instrument Trial..... | 29 |
| 3.4.Research Design..... | 31 |
| 3.5.Data Collection Technique..... | 32 |
| 3.6.Data Analysis Technique..... | 34 |
| 3.6.1.Descriptive Statistics..... | 34 |
| 3.6.2.Normality Test..... | 34 |
| 3.6.3.Homogeneity Test..... | 34 |
| 3.6.4.Statistics Hypothesis..... | 35 |
| CHAPTER IV | 36 |
| 4.1 The Description of Research Result..... | 36 |
| 4.1.1 The Score of Mathematics Communication Ability..... | 36 |
| 4.1.2 The Description of Students' Mathematics Communication Ability test..... | 37 |
| 4.2 The Analysis Data of Research Result..... | 38 |

| | |
|--|----|
| 4.2.1 Normality Test..... | 38 |
| 4.2.2 Homogeneity Test | 39 |
| 4.2.3 Hypothesis Test | 40 |
| 4.3 The Difference in Characteristics of Students' Answer in Research Result..... | 41 |
| 4.4 Research Discussion | 49 |
| CHAPTER V..... | 52 |
| 5.1 Conclusion | 52 |
| 5.2 Suggestion..... | 52 |
| BIBLIOGRAPHY | 53 |
| Appendix..... | 55 |