

## LIST OF CONTENT

|  |             |
|--|-------------|
| <b>APPROVAL SHEET .....</b>                          | <b>i</b>    |
| <b>ORIGINALIZATION STATEMENT.....</b>                | <b>ii</b>   |
| <b>PUBLICATION APPROVAL .....</b>                    | <b>iii</b>  |
| <b>BIOGRAPHY .....</b>                               | <b>iv</b>   |
| <b>ABSTRACT .....</b>                                | <b>v</b>    |
| <b>PREFACE.....</b>                                  | <b>vi</b>   |
| <b>LIST OF CONTENT .....</b>                         | <b>ix</b>   |
| <b>LIST OF TABLES .....</b>                          | <b>xiii</b> |
| <b>LIST OF FIGURES .....</b>                         | <b>xv</b>   |
| <b>LIST OF APPENDIX .....</b>                        | <b>xvii</b> |
| <b>CHAPTER I INTRODUCTION.....</b>                   | <b>1</b>    |
| <b>1.1. Research Background .....</b>                | <b>1</b>    |
| <b>1.2. Problem Identification .....</b>             | <b>9</b>    |
| <b>1.3. Scope of Study.....</b>                      | <b>9</b>    |
| <b>1.4. Problem Limitation .....</b>                 | <b>10</b>   |
| <b>1.5. Research Question .....</b>                  | <b>10</b>   |
| <b>1.6. Research Objective .....</b>                 | <b>10</b>   |
| <b>1.7. Research Benefits.....</b>                   | <b>10</b>   |
| <b>1.7.1. Theoretical Benefits .....</b>             | <b>10</b>   |
| <b>1.7.2. Practical Benefits .....</b>               | <b>11</b>   |
| <b>CHAPTER II LITERATUR REVIEW.....</b>              | <b>12</b>   |
| <b>2.1. Mathematical Communication Ability .....</b> | <b>12</b>   |

|   |           |
|---|-----------|
| 2.2. Mathematics Learning .....               | 14        |
| 2.3. Mathematics Learning Approach .....      | 15        |
| 2.4. RME Learning Approach .....              | 16        |
| 2.5. Problem Posing Approach .....            | 26        |
| 2.6. Learning Theory .....                    | 34        |
| 2.7. Learning Material.....                   | 37        |
| 2.8. Relevant Research .....                  | 39        |
| 2.9. Conceptual Framework .....               | 41        |
| 2.10. Hypothesis .....                        | 42        |
| <b>CHAPTER III RESEARCH METHODOLOGY .....</b> | <b>43</b> |
| 3.1. Type of Research .....                   | 43        |
| 3.2. Place and Time of Research.....          | 43        |
| 3.3. Population and Sample .....              | 43        |
| 3.4. Research Variable.....                   | 44        |
| 3.4.1. Independent Variable .....             | 44        |
| 3.4.2. Control Variable .....                 | 44        |
| 3.4.3. Dependent Variable .....               | 45        |
| 3.5. Research Design .....                    | 45        |
| 3.6. Operational Definition .....             | 46        |
| 3.7. Data Collection.....                     | 47        |
| 3.7.1. Observation .....                      | 47        |
| 3.7.2. Interviews .....                       | 47        |
| 3.7.3. Documentation .....                    | 47        |
| 3.7.4. Test .....                             | 47        |
| 3.8. Research Instrument .....                | 48        |

|   |           |
|---|-----------|
| 3.8.1. Mathematical Communication Ability Test .....  | 48        |
| 3.8.2. Validity Test .....  | 50        |
| 3.8.3. Reliability Test .....   | 51        |
| 3.9. Research Procedure.....  | 52        |
| 3.9.1 Preparation stage.....  | 52        |
| 3.9.2 Implementation Stage .....  | 53        |
| 3.9.3 Final Stage.....  | 59        |
| 3.10. Data Analyze .....  | 61        |
| 3.10.1 Descriptive Analysis.....  | 61        |
| 3.10.2 Inferential Statistical Analysis .....   | 61        |
| <b>CHAPTER IV RESULT AND DISCUSSION.....</b>  | <b>68</b> |
| <b>4.1. Research Result.....</b>  | <b>68</b> |
| 4.1.1. Description of Learning Activities.....  | 68        |
| 4.1.2. Description of Pretest Results .....   | 84        |
| 4.1.3. Description of Posttest Results.....   | 85        |
| 4.1.4. Description Analysis of Mathematical Communication<br>Ability in Experimental Class I.....   | 87        |
| 4.1.5. Description Analysis of Mathematical Communication<br>Ability in Experimental Class II ..... | 89        |
| 4.1.6. Descriptive Process of Completing Mathematical<br>Communication Ability Test Answers.....    | 92        |
| 4.2. Data Analysis.....   | 96        |
| 4.2.1. Pretest Analysis .....   | 96        |
| 4.2.2. Posttest Analysis.....   | 100       |
| 4.2.3. Hypothesis Test .....  | 103       |

|  |            |
|--|------------|
| 4.3. Discussion .....                            | 104        |
| <b>CHAPTER V CONCLUSION AND SUGGESTIONS.....</b> | <b>111</b> |
| 5.1. Conclusion .....                            | 111        |
| 5.2. Suggestions .....                           | 111        |
| <b>REFERENCES.....</b>                           | <b>113</b> |
| <b>APPENDIX.....</b>                             | <b>120</b> |

