

## LIST OF CONTENTS

|   |     |
|---|-----|
| Legalization paper                              | i   |
| Biography                                       | ii  |
| Abstract  | iii |
| Acknowledgment                                  | iv  |
| List of Contents                                | vi  |
| List of Figure                                  | xi  |
| List of Table                                   | x   |
| List of Appendix                                | xi  |
| <b>CHAPTER I : INTRODUCTION</b>                 |     |
| 1.1. Background                                 | 1   |
| 1.2. Identification Problem                     | 4   |
| 1.3. Formulation Problem                        | 4   |
| 1.4. Scope of the Study                         | 5   |
| 1.5. Research Objective                         | 5   |
| 1.6. Significance of Study                      | 6   |
| 1.7. Operational Definition                     | 6   |
| <b>CHAPTER II : LITERATURE STUDY</b>            |     |
| 2.1. Learning Process                           | 7   |
| 2.2. Definition of Problem Based Learning       | 8   |
| 2.2.1. Characteristic of Problem Based Learning | 9   |
| 2.2.2. Advantage of Problem Based Learning      | 9   |
| 2.2.3. Assessment in Problem Based Learning     | 10  |
| 2.2.4. PBL Method Toward Curriculum 2013        | 10  |
| 2.3. Media                                      | 12  |
| 2.3.1. Macromedia Flash                         | 12  |
| 2.3.2. Modules as Learning Media                | 13  |
| 2.3.2.1. Characteristic of Module               | 14  |
| 2.3.2.2. Advantage of Module                    | 16  |
| 2.3.2.3. Components / Elements in Module        | 16  |

|  |    |
|--|----|
| 2.3.2.4. The Purpose of the Learning Activity Module | 17 |
| 2.3.2.5. The significant of Learning Activity Module | 18 |
| 2.4 Education Character                              | 18 |
| 2.5 Curriculum 2013                                  | 19 |
| 2.6. Salt Hydrolysis                                 | 20 |
| 2.6.1. Definition of salt Hydrolisis                 | 20 |
| 2.6.1.1. Salts from strong acid and strong base      | 21 |
| 2.6.1.2. Salts from weak acid and strong base        | 21 |
| 2.6.1.3. Salts from strong acid and weak base        | 22 |
| 2.6.1.4. Salts from weak acid and weak base          | 22 |
| 2.6.2. pH of salt solution                           | 22 |
| 2.6.2.1. Salts from strong acid and strong base      | 23 |
| 2.6.2.2. Salts from weak acid and strong base        | 23 |
| 2.6.2.3. Salts from strong acid and weak base        | 23 |
| 2.6.2.4. Salts from weak acid and weak base          | 24 |
| 2.7. Conceptual Framework                            | 25 |
| 2.8. Hypothesis                                      | 26 |

### **CHAPTER III : RESEARCH METHODS**

|  |    |
|--|----|
| 3.1. Research Location and Research Time | 27 |
| 3.2. Population and Sample               | 27 |
| 3.3. Research Variables and Instrument   | 27 |
| 3.4. Design of Research                  | 29 |
| 3.5. Research Procedure                  | 30 |
| 3.6. Analysis Technique                  | 34 |
| 3.6.1. Descriptive Analysis              | 34 |
| 3.6.2. Inferensial Analysis              | 35 |
| 3.6.2.1 Normality Test                   | 36 |
| 3.6.2.2 Homogeneity Test                 | 36 |
| 3.6.2.3 Normalized Gain                  | 37 |
| 3.6.2.4 Hypothesis Testing               | 37 |
| 3.6.2.5 Hypothesis Criteria              | 38 |
| 3.7 Analysis Correlation                 | 38 |
| 3.8. Research Time Table 2014            | 40 |

## **CHAPTER IV : RESULT AND DISCUSSION**

|  |    |
|--|----|
| 4.1 The Survey of Senior High School Chemistry Textbook                        | 41 |
| 4.2 Analysis Description of Bilingual Chemistry Textbook of Senior High School | 41 |
| 4.3 The Development of Interactive Learning Module                             | 45 |
| 4.4 Observation of Student Character   | 47 |
| 4.4 Research Result  | 47 |
| 4.5.1 Analysis Test of Data  | 47 |
| 4.5.1.1 Normality Test   | 48 |
| 4.5.1.2 Homogeneity Test   | 49 |
| 4.5.1.3 Hypothesis Test  | 49 |
| 4.6 Discussion   | 50 |

## **CHAPTER V : CONCLUSION AND SUGGESTION**

|                |    |
|----------------|----|
| 5.1 Conclusion | 52 |
| 5.2 Suggestion | 53 |

|                   |           |
|-------------------|-----------|
| <b>REFERENCES</b> | <b>54</b> |
|-------------------|-----------|