# CONTENT

<table>
<thead>
<tr>
<th>Section</th>
<th>Page</th>
</tr>
</thead>
<tbody>
<tr>
<td>Legitimation Sheet</td>
<td>i</td>
</tr>
<tr>
<td>Biography</td>
<td>ii</td>
</tr>
<tr>
<td>Abstract</td>
<td>iii</td>
</tr>
<tr>
<td>Preface</td>
<td>iv</td>
</tr>
<tr>
<td>Content</td>
<td>vi</td>
</tr>
<tr>
<td>List of Figure</td>
<td>x</td>
</tr>
<tr>
<td>List of Table</td>
<td>xi</td>
</tr>
<tr>
<td>List of Appendix</td>
<td>xiii</td>
</tr>
</tbody>
</table>

## CHAPTER I INTRODUCTION

1.1. Background 1
1.2. Problem Identification 7
1.3. Problem Limitation 7
1.4. Problem Formulation 8
1.5. Research Objective 8
1.6. Research Benefit 9

## CHAPTER II REVIEW REFERENCES

2.1. Theoretical Framework 10
2.1.1. Integration of Character Education 10
2.1.1.1 Definition of Character Education 10
2.1.1.2 Dimension of Character Education 11
2.1.1.3 Stages of Character Education 14
2.1.1.4 Integration of Character Education in Learning Science 19
2.1.1.6 Character Assessment 20
2.1.2. Problem Solving Strategy with Discussion Method 21
2.1.2.1 Problem Solving Strategy 21
2.1.2.2 Problem Solving with Discussion Method 24
2.1.2.3 Problem Solving Competency 25
2.1.3 Integrating Character Education with Problem Solving Strategy with Discussion Method 26
2.1.3.1 Integration of Character Education by Problem Solving Strategy with Discussion Method 26
2.1.3.2 Improvement of Responsibility Value in Teaching Problem Solving Strategy 27
2.1.3.3 Problem Solving Strategy in Science Lesson on Matter Physics 29
2.1.4 Matter 30
2.1.4.1 Light 30
2.1.4.2 Optical Instruments 32
2.2 Conceptual Framework 34
2.3 Research Hypothesis 36

CHAPTER III RESEARCH METHOD 38
3.1 Location and Time of Research 38
3.1.1 Research Location 38
3.1.2 Time of Research 38
3.2 Population and Sample of Research 38
3.2.1 Population 38
3.2.2 Sample 38
3.3 Research Design 38
3.4 Research Variable 39
3.4.1 Independent Variable 39
3.4.2 Dependent Variable 40
3.5 Research Procedure 42
3.6 Research Instrument 43
3.6.1 Responsibility Test 43
3.6.2 Observation 43
3.6.3 Test Problem Solving Competency 43
3.7. Data Collection Techniques 44
3.8. Data Processing Techniques 44
3.8.1. Data of Students Responsibility 44
3.8.1.1. Responsibility Test and Teacher Observation 44
3.8.1.2. Observation 48
3.8.2. Test Score Data for Student’s Problem Solving Competency 49
3.9. Data Analyzing Technique 52
3.9.1. Data Proportion Test 52
3.9.2. Test Hypothesis 55

CHAPTER IV RESULT OF RESEARCH AND DISCUSSION 56
4.1. Research Implementation 56
4.1.1. Implementation of Character Education 56
4.1.1.1. Responsibility Test 57
4.1.1.2. Problem Solving Competency 58
4.2. Research Result and Discussion 58
4.2.1. Data Analyzing of Responsibility Test Result 58
4.2.1.1. Result of Students Responsibility that Implemented Character Education 58
4.2.1.2. Result of Students Responsibility without Implemented Character Education 60
4.2.2. Data Analyzing of Problem Solving Competency Test 61
4.2.2.1. Result of Problem Solving Competency that Implemented Character Education 61
4.2.2.2. Result of Problem Solving Competency without Implemented Character Education 62
4.2.3. Observation Result 64
4.2.3.1. Observation Result for Experiment Class 65
4.2.3.2. Observation Result for Control Class 68
4.2.4. Hypothesis Test 70
4.2.4.1. The Effect of Implementation of Character Education for Improvement Students Responsibility Using Problem Solving Strategy 70

4.2.4.2. The Effect of Implementation of Character Education for Improvement Problem Solving Competency Using Problem Solving Strategy 71

4.2.4.3. Interaction between Students Responsibility and Problem Solving Competency 72

4.3. Discussion 73

CHAPTER V CONCLUSION AND SUGGESTION 77

5.1. Conclusion 77

5.2. Recommendation 78

REFERENCES 79