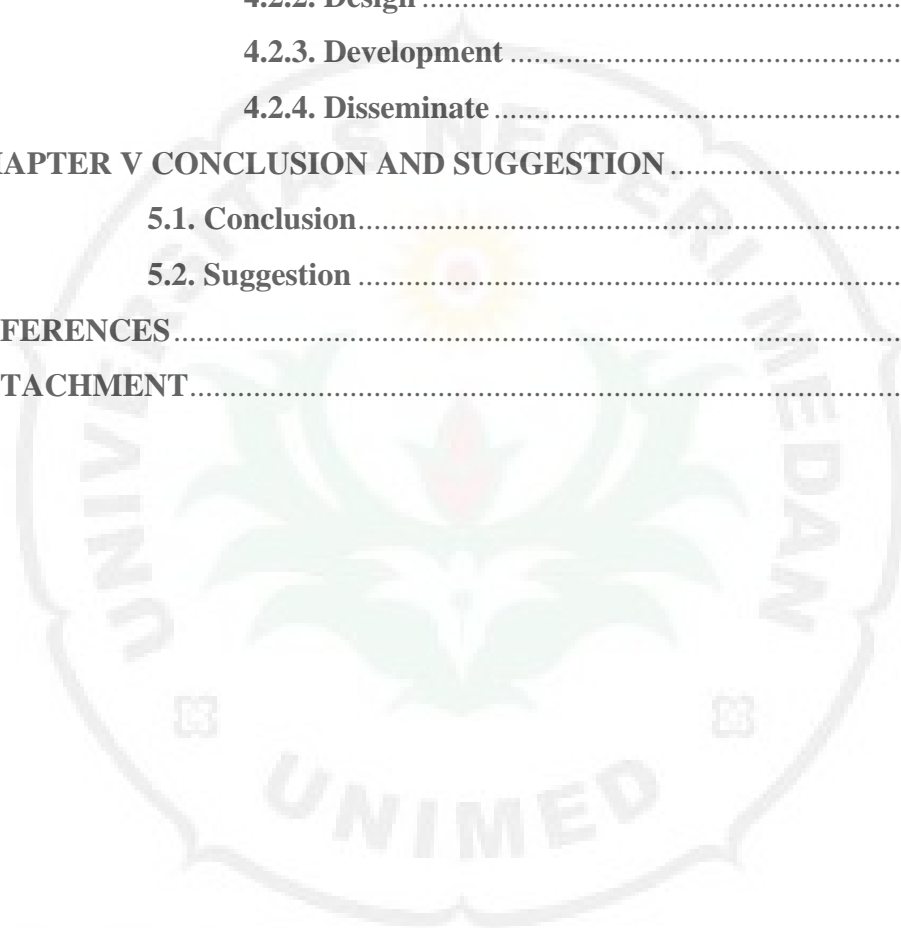


## Table of Contents

	<i>Page</i>
Legalization sheet .....	i
Originality Statement.....	ii
Assignment Publication Approval.....	iii
Biography.....	iv
Abstract .....	v
Acknowledgement .....	vi
Table of Contents .....	viii
List of Figures.....	xi
List of Table.....	xii
List of Appendix.....	xiv
<b>CHAPTER I INTRODUCTION.....</b>	<b>1</b>
<b>1.1. Problem Background .....</b>	<b>1</b>
<b>1.2. Problem Identification .....</b>	<b>4</b>
<b>1.3. Problem Scoping .....</b>	<b>5</b>
<b>1.4. Research Question.....</b>	<b>5</b>
<b>1.5. Research Objectivities .....</b>	<b>6</b>
<b>1.6. Research Benefit Contribution .....</b>	<b>6</b>
<b>1.7. Operational Definition .....</b>	<b>7</b>
<b>CHAPTER II LITERATURE REVIEW .....</b>	<b>8</b>
<b>2.1. Student Worksheet.....</b>	<b>8</b>
<b>2.1.1. Student Worksheet Definition.....</b>	<b>8</b>
<b>2.1.2. Student Worksheet Purpose and Function.....</b>	<b>9</b>
<b>2.1.3. Student Worksheet Component.....</b>	<b>10</b>
<b>2.2. DNA Barcoding .....</b>	<b>10</b>
<b>2.2.1. Definition of DNA Barcoding.....</b>	<b>10</b>
<b>2.2.2. Source of DNA Barcoding .....</b>	<b>11</b>
<b>2.2.3. The Importance of DNA Barcoding for Insect....</b>	<b>11</b>
<b>2.2.4. DNA Barcode Technique for Insect.....</b>	<b>12</b>
<b>2.3. Research and Development .....</b>	<b>15</b>

<b>2.3.1. Definition of Research and Development (R&amp;D)</b>	15
<b>2.3.2. R&amp;D Model</b> .....	15
<b>2.3.3. 4D Model</b> .....	16
<b>CHAPTER III RESEARCH METHOD</b> .....	17
<b>3.1. Place and Time of the Research</b> .....	17
<b>3.2. Subject and Object of the Research</b> .....	17
<b>3.3. Type and Design of the Research</b> .....	17
<b>3.3.1. Type of research</b> .....	17
<b>3.3.2. Design of research</b> .....	17
<b>3.4. Research Procedure</b> .....	18
<b>3.4.1. Define Stage</b> .....	19
<b>3.4.2. Design stage</b> .....	19
<b>3.4.3. Develop Stage</b> .....	20
<b>3.4.4. Disseminate Stage</b> .....	20
<b>3.5. Data Collecting Technique</b> .....	21
<b>3.6. Research Instrument</b> .....	21
<b>3.6.1. Validation of Content/ Material Expert</b> .....	21
<b>3.6.2. Validation of Learning Approach Expert</b> .....	22
<b>3.6.3. Response sheet for Lecturer</b> .....	23
<b>3.6.4. Student Response Questionnaire</b> .....	23
<b>3.6.5. Student Pre-test and Post-test Question</b> .....	25
<b>3.7. Data Analysis Technique</b> .....	28
<b>3.7.1. Analysis of research data from experts and lecturer responses</b> .....	28
<b>3.7.2. Data analysis for students' response</b> .....	30
<b>3.7.3. Worksheet effectivity by paired t- test</b> .....	32
<b>3.7.4. N-Gain Test</b> .....	33
<b>CHAPTER IV RESULT AND DISCUSSION</b> .....	34
<b>4.1. Research Result</b> .....	34
<b>4.1.1. Define Result</b> .....	34
<b>4.1.2. Design Result</b> .....	36
<b>4.1.3. Development Result</b> .....	38

<b>4.1.4. Disseminate Result</b> .....	46
<b>4.2. Research Result Discussion</b> .....	49
<b>4.2.1. Define</b> .....	49
<b>4.2.2. Design</b> .....	50
<b>4.2.3. Development</b> .....	50
<b>4.2.4. Disseminate</b> .....	54
<b>CHAPTER V CONCLUSION AND SUGGESTION</b> .....	58
<b>5.1. Conclusion</b> .....	58
<b>5.2. Suggestion</b> .....	59
<b>REFERENCES</b> .....	60
<b>ATTACHMENT</b> .....	64



THE  
*Character Building*  
 UNIVERSITY