# CONTENT

<table>
<thead>
<tr>
<th>Chapter</th>
<th>Title</th>
<th>Page</th>
</tr>
</thead>
<tbody>
<tr>
<td>LEGALIZATION PAPER</td>
<td>i</td>
<td></td>
</tr>
<tr>
<td>BIOGRAPHY</td>
<td>ii</td>
<td></td>
</tr>
<tr>
<td>ABSTRACT</td>
<td>iii</td>
<td></td>
</tr>
<tr>
<td>ACKNOWLEDGEMENT</td>
<td>iv</td>
<td></td>
</tr>
<tr>
<td>CONTENT</td>
<td>vii</td>
<td></td>
</tr>
<tr>
<td>LIST OF TABLE</td>
<td>xi</td>
<td></td>
</tr>
<tr>
<td>LIST OF PICTURE</td>
<td>xii</td>
<td></td>
</tr>
<tr>
<td>LIST OF APPENDIX</td>
<td>xiii</td>
<td></td>
</tr>
<tr>
<td>CHAPTER I. INTRODUCTION</td>
<td></td>
<td></td>
</tr>
<tr>
<td>1.1</td>
<td>Research Background</td>
<td>1</td>
</tr>
<tr>
<td>1.2</td>
<td>Problem Identification</td>
<td>4</td>
</tr>
<tr>
<td>1.3</td>
<td>Scope of Research</td>
<td>4</td>
</tr>
<tr>
<td>1.4</td>
<td>Problem Statement</td>
<td>5</td>
</tr>
<tr>
<td>1.5</td>
<td>Research Objective</td>
<td>5</td>
</tr>
<tr>
<td>1.6</td>
<td>Research Benefit</td>
<td>6</td>
</tr>
<tr>
<td>1.7</td>
<td>Operational Definition</td>
<td>6</td>
</tr>
<tr>
<td>CHAPTER II. LITERATURE REVIEW</td>
<td></td>
<td></td>
</tr>
<tr>
<td>2.1</td>
<td>Learning and Learning Outcomes</td>
<td>8</td>
</tr>
<tr>
<td>2.1.2</td>
<td>Learning outcomes</td>
<td>10</td>
</tr>
<tr>
<td>2.2</td>
<td>Character Education</td>
<td>11</td>
</tr>
<tr>
<td>2.2.1</td>
<td>Communicative</td>
<td>12</td>
</tr>
<tr>
<td>2.3</td>
<td>Contextual Teaching and Learning</td>
<td>15</td>
</tr>
<tr>
<td>2.3.1</td>
<td>Basic Principle of CTL</td>
<td>16</td>
</tr>
<tr>
<td>Section</td>
<td>Title</td>
<td>Page</td>
</tr>
<tr>
<td>---------</td>
<td>----------------------------------------------------------------------</td>
<td>------</td>
</tr>
<tr>
<td>2.4</td>
<td>Direct Instruction</td>
<td>17</td>
</tr>
<tr>
<td>2.5</td>
<td>Media and Multimedia</td>
<td>19</td>
</tr>
<tr>
<td></td>
<td>2.5.1 Classification of Media</td>
<td>20</td>
</tr>
<tr>
<td>2.5.2</td>
<td>Multimedia</td>
<td>20</td>
</tr>
<tr>
<td></td>
<td>2.5.2.1 Privileged Multimedia</td>
<td>21</td>
</tr>
<tr>
<td>2.6</td>
<td>Hydrocarbon</td>
<td>21</td>
</tr>
<tr>
<td></td>
<td>2.6.1 Uniquess of Atom Carbon</td>
<td>22</td>
</tr>
<tr>
<td>2.6.2</td>
<td>Grouping Hydrocarbon</td>
<td>23</td>
</tr>
<tr>
<td></td>
<td>2.6.2.1 Alkanes</td>
<td>24</td>
</tr>
<tr>
<td></td>
<td>2.6.2.2 Alkenes</td>
<td>26</td>
</tr>
<tr>
<td></td>
<td>2.6.2.3 Alkynes</td>
<td>28</td>
</tr>
<tr>
<td>2.6.3</td>
<td>Isomer</td>
<td>29</td>
</tr>
<tr>
<td>2.6.4</td>
<td>Reaction of Hydrocarbon</td>
<td>31</td>
</tr>
<tr>
<td>2.6.5</td>
<td>Uses of Hydrocarbon</td>
<td>32</td>
</tr>
<tr>
<td>2.7</td>
<td>Previous Research</td>
<td>34</td>
</tr>
<tr>
<td>2.8</td>
<td>Conceptual Framework</td>
<td>35</td>
</tr>
<tr>
<td>2.9</td>
<td>Hypothesis</td>
<td>36</td>
</tr>
<tr>
<td></td>
<td><strong>CHAPTER III. METHODOLOGY RESEARCH</strong></td>
<td>37</td>
</tr>
<tr>
<td>3.1</td>
<td>Research Location and Research Object</td>
<td>37</td>
</tr>
<tr>
<td>3.2</td>
<td>Population and Sample</td>
<td>37</td>
</tr>
<tr>
<td>3.3</td>
<td>Research Variable</td>
<td>38</td>
</tr>
<tr>
<td>3.4</td>
<td>Research Design</td>
<td>39</td>
</tr>
<tr>
<td>3.5</td>
<td>Research Procedure</td>
<td>40</td>
</tr>
<tr>
<td>3.6</td>
<td>Research Instrument</td>
<td>44</td>
</tr>
<tr>
<td></td>
<td>3.6.1 Validity test</td>
<td>44</td>
</tr>
<tr>
<td></td>
<td>3.6.2 Reliability Test</td>
<td>46</td>
</tr>
</tbody>
</table>
3.6.3 Difficulty Index
3.6.4 Discrimination Index
3.6.5 Distructor Index

3.7 Data Collection and Analysis
3.7.1 Normality Test
3.7.2 Homogenity Test
3.7.3 Normalized Gain
3.7.4 Effectiveness of student’s achievement

3.8 Hypothesis Testing

CHAPTER IV. RESULT AND DISCUSSION

4.1 Description of CTL in Hydrocarbon Topic
4.2 Analysis of Instrument Data
4.2.1 Validation
4.2.2 Reliability
4.2.3 Difficulty Index
4.2.4 Discrimination Index
4.2.5 Distructor Index

4.3 Result Data of Research
4.3.1 Student’s character (communicative)
4.3.2 Result of Experiment Class
4.3.3 Result of Control Class
4.3.4 Result Data of Gain

4.4 Analysis Test of Data
4.4.1 Normality Test
4.4.1.1. Student’s Character
4.4.1.2 Student’s Achievement
4.4.2 Homogeneity Test
   4.4.2.1 Student’s Character 60
   4.4.2.2 Student’s Achievement 60
4.4.3 Hypothesis Test
   4.4.3.1 Hypothesis Test 1 61
   4.4.3.2 Hypothesis Test 2 61
4.4.4 Increasing Student’s Achievement 62
4.4.5 Effectiveness of Student’s Achievement 63
4.5 Discussion 63

CHAPTER V. CONCLUSION AND SUGGESTION 66
5.1 Conclusion 66
5.2 Suggestion 67

REFERENCES 68