

## TABEL OF CONTENTS

|                                                                                   |             |
|-----------------------------------------------------------------------------------|-------------|
| <b>APPROVAL SHEET .....</b>                                                       | <b>i</b>    |
| <b>PAGE OF ORIGINALITY STATEMENTS.....</b>                                        | <b>ii</b>   |
| <b>APPROVAL PAGE FOR PUBLICATION OF FINAL PROJECT FOR ACADEMIC PURPOSES .....</b> | <b>iii</b>  |
| <b>BIOGRAPHY .....</b>                                                            | <b>iv</b>   |
| <b>ABSTRACT.....</b>                                                              | <b>v</b>    |
| <b>PREFACE.....</b>                                                               | <b>vi</b>   |
| <b>TABLE OF CONTENTS .....</b>                                                    | <b>ix</b>   |
| <b>LIST OF FIGURES .....</b>                                                      | <b>xiii</b> |
| <b>LIST OF TABLES .....</b>                                                       | <b>xiv</b>  |
| <b>LIST OF APPENDIX .....</b>                                                     | <b>xv</b>   |
| <b>CHAPTER I INTRODUCTION .....</b>                                               | <b>1</b>    |
| 1.1    Bacground of the Problem .....                                             | 1           |
| 1.2    Identification of Problem.....                                             | 6           |
| 1.3    Scope .....                                                                | 6           |
| 1.4    Scope of Problem.....                                                      | 6           |
| 1.5    Formulation of the Problem.....                                            | 6           |
| 1.6    Research Purposes .....                                                    | 7           |
| 1.7    Benefits of Research.....                                                  | 7           |
| 1.7.1    Theoretical Benefits .....                                               | 7           |
| 1.7.2    Practical Benefits.....                                                  | 7           |
| <b>CHAPTER II THEORITICAL FOUNDATION.....</b>                                     | <b>9</b>    |
| 2.1    Theoretical Framework.....                                                 | 9           |
| 2.1.1    Instructional Media.....                                                 | 9           |
| 2.1.1.1    Definition of Learning Media.....                                      | 9           |
| 2.1.1.2    Characteristics and Characteristics of Learning Media .....            | 11          |
| 2.1.1.3    Learning Media Functions .....                                         | 12          |
| 2.1.1.4    Benefits of Learning Media .....                                       | 12          |
| 2.1.1.5    Use of Learning Media .....                                            | 13          |
| 2.1.1.6    Classification and Types of Learning Media .....                       | 14          |

|                                           |                                                              |           |
|-------------------------------------------|--------------------------------------------------------------|-----------|
| <b>2.1.1.7</b>                            | <b>Learning Media Principles.....</b>                        | <b>16</b> |
| <b>2.1.2</b>                              | <b>Website.....</b>                                          | <b>17</b> |
| <b>2.1.2.1</b>                            | <b>Definition of Website .....</b>                           | <b>17</b> |
| <b>2.1.2.2</b>                            | <b>Website Functions.....</b>                                | <b>17</b> |
| <b>2.1.2.3</b>                            | <b>Types of Websites.....</b>                                | <b>18</b> |
| <b>2.1.3</b>                              | <b>Web Based Learning .....</b>                              | <b>18</b> |
| <b>2.1.4</b>                              | <b>Google Sites .....</b>                                    | <b>19</b> |
| <b>2.1.4.1</b>                            | <b>Definition of Google Sites .....</b>                      | <b>19</b> |
| <b>2.1.4.2</b>                            | <b>Benefits of Google Sites .....</b>                        | <b>19</b> |
| <b>2.1.4.3</b>                            | <b>Advantages and Disadvantages of Google Sites .....</b>    | <b>20</b> |
| <b>2.1.5</b>                              | <b>Learning Outcomes.....</b>                                | <b>21</b> |
| <b>2.1.5.1</b>                            | <b>Definition of Learning Outcomes .....</b>                 | <b>21</b> |
| <b>2.1.5.2</b>                            | <b>Factors Affecting Learning Outcomes .....</b>             | <b>23</b> |
| <b>2.1.5.3</b>                            | <b>Principles of Learning Outcomes .....</b>                 | <b>23</b> |
| <b>2.1.6</b>                              | <b>Thermodynamics .....</b>                                  | <b>24</b> |
| <b>2.1.6.1</b>                            | <b>Work and Process Thermodynamics .....</b>                 | <b>24</b> |
| <b>2.1.6.2</b>                            | <b>First Law of Thermodynamics and Its Application .....</b> | <b>29</b> |
| <b>2.1.6.3</b>                            | <b>Heat Capacity .....</b>                                   | <b>30</b> |
| <b>2.1.6.4</b>                            | <b>Second Law of Thermodynamics .....</b>                    | <b>31</b> |
| <b>2.2</b>                                | <b>Relevant Research.....</b>                                | <b>34</b> |
| <b>2.3</b>                                | <b>Framework of Thinking .....</b>                           | <b>37</b> |
| <b>2.4</b>                                | <b>Hypotension.....</b>                                      | <b>38</b> |
| <b>CHAPTER III RESEARCH METHODE .....</b> |                                                              | <b>39</b> |
| <b>3.1</b>                                | <b>Location and Time of Research.....</b>                    | <b>39</b> |
| <b>3.2</b>                                | <b>Types of Research .....</b>                               | <b>38</b> |
| <b>3.3</b>                                | <b>Population and Sample.....</b>                            | <b>39</b> |
| <b>3.3.1</b>                              | <b>Population.....</b>                                       | <b>39</b> |
| <b>3.3.2</b>                              | <b>Sample.....</b>                                           | <b>39</b> |
| <b>3.4</b>                                | <b>Research Variable .....</b>                               | <b>40</b> |
| <b>3.4.1</b>                              | <b>Free Variable.....</b>                                    | <b>40</b> |
| <b>3.4.2</b>                              | <b>Dependent Variable .....</b>                              | <b>40</b> |
| <b>3.5</b>                                | <b>Research Design .....</b>                                 | <b>40</b> |

|                                                         |                                                                             |           |
|---------------------------------------------------------|-----------------------------------------------------------------------------|-----------|
| <b>3.6</b>                                              | <b>Data Collection Technique .....</b>                                      | <b>40</b> |
| <b>3.7</b>                                              | <b>Validator Assessment Results .....</b>                                   | <b>43</b> |
| <b>3.7.1</b>                                            | <b>Material Expert Validation.....</b>                                      | <b>43</b> |
| <b>3.7.2</b>                                            | <b>Media Expert Validation.....</b>                                         | <b>44</b> |
| <b>3.8</b>                                              | <b>Resarch Instrument .....</b>                                             | <b>44</b> |
| <b>3.8.1</b>                                            | <b>Interview .....</b>                                                      | <b>44</b> |
| <b>3.8.2</b>                                            | <b>Questionnaire .....</b>                                                  | <b>45</b> |
| <b>3.8.3</b>                                            | <b>Learnig Results Test .....</b>                                           | <b>45</b> |
| <b>3.9</b>                                              | <b>Instrument Testing .....</b>                                             | <b>47</b> |
| <b>3.9.1</b>                                            | <b>Validity test.....</b>                                                   | <b>47</b> |
| <b>3.9.2</b>                                            | <b>Instrument Reliability Test .....</b>                                    | <b>49</b> |
| <b>3.10</b>                                             | <b>Research producer .....</b>                                              | <b>50</b> |
| <b>3.11</b>                                             | <b>Data Analysis Technique.....</b>                                         | <b>51</b> |
| <b>3.11.1</b>                                           | <b>Normality Test.....</b>                                                  | <b>53</b> |
| <b>3.11.2</b>                                           | <b>Homogeneity Test .....</b>                                               | <b>54</b> |
| <b>3.11.3</b>                                           | <b>Hypothesis Testing .....</b>                                             | <b>54</b> |
| <b>CHAPTER IV RESEARCH RESULTS AND DISCUSSION .....</b> |                                                                             | <b>56</b> |
| <b>4.1</b>                                              | <b>Research Results .....</b>                                               | <b>56</b> |
| <b>4.1.1</b>                                            | <b>Description of Learning Outcomes.....</b>                                | <b>56</b> |
| <b>4.1.2</b>                                            | <b>Pre-test Data for Experimental Class and Control Class.....</b>          | <b>56</b> |
| <b>4.1.3</b>                                            | <b>Post-test Data of Experimental Class and Control Class .....</b>         | <b>58</b> |
| <b>4.1.4</b>                                            | <b>Test Data Analysis Requirements.....</b>                                 | <b>59</b> |
| <b>4.1.4.1</b>                                          | <b>Normality Pre-test Control class and Experiment class .....</b>          | <b>59</b> |
| <b>4.1.4.2</b>                                          | <b>Normality Post-test Control class and Experiment class.....</b>          | <b>60</b> |
| <b>4.1.4.3</b>                                          | <b>Pre-test Homogeneity Test Control class and Experimental class .....</b> | <b>61</b> |
| <b>4.1.4.4</b>                                          | <b>Post-test Homogeneity Test Control class and Experiment class .....</b>  | <b>61</b> |
| <b>4.1.4.5</b>                                          | <b>Hypothesis Test Pre-test Control class and Experiment class .....</b>    | <b>62</b> |
| <b>4.1.4.6</b>                                          | <b>Post-test Hypothesis Test Control class and Experiment class .....</b>   | <b>64</b> |
| <b>4.1.5</b>                                            | <b>Student Response to Google Sites Learning Media .....</b>                | <b>65</b> |
| <b>4.2</b>                                              | <b>Discussion.....</b>                                                      | <b>66</b> |
| <b>CHAPTER V CONCLUSIONS AND RECOMMENDATIONS .....</b>  |                                                                             | <b>71</b> |
| <b>5.1</b>                                              | <b>Conclusion .....</b>                                                     | <b>71</b> |

|                      |    |
|----------------------|----|
| 5.2 Suggestion ..... | 71 |
| REFERENCE.....       | 72 |
| APPENDIX.....        | 75 |

