LIST OF CONTENT

Legalization Sheet	Pages
Biography	i
Abstract	ii
Preface	iii
List of Content	ν
List of Figure	viii
List of Table	ix
List of Appendix	\boldsymbol{x}
CHAPTER I INTRODUCTION	1
1.1. Research Background	1
1.2. Problem Identification	3
1.3. Problem Limitation	4
1.4. Problem Formulation	4
1.5. Research Objectives	4
1.6. Research Benefits	5
1.7. Operational Defenition	5
CHAPTER II LITERATURE REVIEW	6
2.1. Theoretical Framework	6
2.1.1. Studying and Learning	6
2.1.2. Studying and Learning Process Chemistry in high school	8
2.1.3. Difficulties Students In Studying	10
2.1.4. Cognitive Learning Difficulties	13
2.2. Description of Study Material	14
2.2.1. The changes of chemistry in chemical reaction	15
2.2.2. Enthalpy and enthalpy changes	16
2.2.3. The Equation of Thermochemistry	19

2.2.4. The Standard Enthalpy Change (ΔH^0)	20
2.2.5. Calculation of ΔH Reaction	21
2.2.5.1. Calculation ΔH Reaction Using Calorimetry	21
2.2.5.2. Calculating ΔH Reaction Using Hess Law	22
2.2.5.3. Calculating ΔH Reaction Using The Binding Energy	24
2.2.6. Heat of Combustion In Daily Life	25
2.3. Conceptual Framework	26
2.4. Hypothesis	26
CHAPTER III RESEARCH METHODOLOGY	27
3.1. Research Location and Time	27
3.2. Research Population and Sample	27
3.3. Types And Data Sources	27
3.4. Research Instruments	27
3.4.1. Diagnostic test	28
3.4.2. Questionnare	29
3.5. Type and Design Research	30
3.6. Collecting Data Technique	31
3.7. Analysis Data Interpretation	32
3.8. Valuing Cognitive Capability	34
CHAPTER IV RESULT AND DISCUSSION	
4.1. Research Result	35
4.2. Students Capability	35
4.3. Presentation of Data and Data Analysis	35
4.3.1. Analysis of the difficultied students based on the scores	35
obtained by students	
4.3.2. Analysis layout difficulty and types of errors students to each question	37
4.3.3. Identification of Causing Learning Difficulties Factor's	43
4.3.4 Correlation Student Learning Difficulties with student	48

cognitive capability	
4.4. Discussion and Research	49
BAB V CONCLUSSION AND SUGGESTION	58
5.1. Conclusion	58
5.2. Suggestion	58
REFERENCES	60