LIST OF CONTENT

	Page
Ratification Sheet	i
Biography	ii
Abstract	iii
Preface	iv
List of Content	vi
List of Figure	ix
List of Table	x
List of Appendix	xi
CHAPTER I INTRODUCTION	
1.1 Background	1
1.2 Problem Identification	3
1.3 Problem Limitation	3
1.4 Problem Formulation	3
1.5 Research Objective	3
1.6 Research Benefits	4
CHAPTER II LITERATURE REVIEW	
2.1 Definition of Learning	5
2.2 Learning Purposes	6
2.3 Learning Activities	7
2.4 Learning Achievement	8
2.4.1 Cognitive Domain	8
2.5 Definition of Science	9
2.5.1 Importance of Science Teaching	10
2.5.2 Approaches to Science Teaching	11
2.5.3 Process of Science	12
2.6 Direct Instructional Model	12

2.6.1 Definition of Direct Instructional Model	12
2.6.2 Syntax of Direct Instructional Model	13
2.6.3 Steps of Learning and Teaching in Direct Instructional Model	14
2.7 Discovery Learning Model	14
2.7.1 Constructivism Theory	14
2.7.2 The Understanding of Discovery Learning Model	15
2.7.3 Aims of Discovery Learning Model	16
2.7.4 Syntax of Discovery Learning Model	16
2.7.5 The Advantages and Disadvantages of	
Discovery Learning Model	18
2.8 Teaching Material	19
2.8.1 Temperature	19
2.8.2 Temperature Measurement	20
2.9 Conceptual Framework	20
2.10 Research Hypothesis	21
CHAPTER III RESEARCH METHOD	
3.1 Research Location and Research Time	22
3.2 Population and Sample of the Research	22
3.2.1 Population of Research	22
3.2.2 Sample of Research	22
3.3 Research Variable	22
3.3.1 Independent Variable	22
3.3.2 Dependent Variable	22
3.4 Type and Research Design	23
3.4.1 Type of Research	23
3.4.2 Design of Research	23
3.5 Research Procedure	23
3.6 Research Instrument	24
3.6.1 Learning Achievement	24
3.6.2 Instrument of Student Learning Activity	26

3.6.3 Content Validity	29
3.6.4 Validity Test	29
3.7 Data Analysis Techniques	29
3.7.1 Determine Average Value	29
3.7.2 Determine the Standard Deviation	30
3.7.3 Homogeneity Test	30
3.7.4 Normality Test	31
3.7.5 Average Similar Ability	31
3.7.6 Hypothesis Test	33

CHAPTER IV RESEARCH RESULT AND DISCUSSION

4.1 Research Result	35
4.1.1 Pre Test Score of Student in Experiment and Control Class	35
4.1.2 Data Analysis of Pre Test	37
4.1.2.1 Normality Test of Pre-Test Data in Experiment Class	37
4.1.2.2 Homogeneity test of Pre Test	37
4.1.2.3 Average Similar Ability Test	38
4.1.3 Post Test Score of Student in Experiment and Control Class	38
4.1.4 Data Analysis of Post Test	40
4.1.4.1 Normality Test of Post Test Data in Control Class	40
4.1.4.2 Homogeneity test of Post Test	40
4.1.4.3 Hypothesis Test	41
4.2 The Effect of Problem in Experiment and Control Class	41
4.3 Observation	42
4.4 Discussion	44

46
46

47

REFERENCES