CONTENTS

Legalization Paper i
Biography ii
Abstract iii
Acknowledgement iv
Contents vii
List of Figures x
List of Tables xi
List of Appendix xii

CHAPTER I INTRODUCTION

1.1 Background 1
1.2 Problem Identification 5
1.3 Problem Limitation 5
1.4 Research Formulation 6
1.5 Research Objective 6
1.6 Research Benefit 7
1.7 Operational Definition 7

CHAPTER II LITERATURE STUDY

2.1.1 Nature of Learning Achievement in Chemistry 8
2.1.2 Nature of Student Interest 9
2.1.3 Nature of Learning Model 10
2.1.4 Inquiry Learning Model 11
2.1.5 Guided Inquiry Learning Model 14
2.1.6 Process Oriented Guided Inquiry Learning (POGIL) 15
2.1.7 Direct Instruction Learning Model 17
2.1.8 Lesson Study 18
2.1.9 Nature of Learning Media 20
2.1.10 Interactive Media Learning 21
CHAPTER III RESEARCH METHODOLOGY

3.1 Research Location and Objects

3.2 Research Population and Sample

3.3 Research Variable
   3.3.1 Independent Variable
   3.3.2 Dependent Variable
   3.3.3 Control Variable

3.4 Research Design

3.5 Research Procedure
   3.5.1 Preparation of POGIL Strategy for the Stoichiometry
   3.5.2 Implementation of Pogil Strategy With Interactive Media
      Based on Lesson Study for teaching of Stoichiometry

3.6 Research Instrument
   3.6.1 Test Instrument
   3.6.2 Questionnaire of Student’s Interest
   3.6.3 Observation Sheet of Student’s Interest

3.7 Technique of Data Collection
   3.7.1 Questionnaire and Observation Sheet of Student’s Interest
   3.7.2 Test of Students Result
      3.7.2.1 Validity Test
      3.7.2.2 Reliability Test
      3.7.2.3 Difficulty Level Test
      3.7.2.4 Discrimination Index Test

3.8 Technique of Data Analysis
   3.8.1 Normality Test
   3.8.2 Homogeneity Test


3.8.3 Normalized Gain 46
3.8.4 Hypothesis Testing 46

CHAPTER IV RESULT AND DISCUSSION
4.1 The Description of School Sample 47
4.2 Description of POGIL Strategy based on Lesson Study on teaching of Stoichiometry Topic 47
4.3 The Instrument’s Analysis 49
   4.3.1 The Observation Sheet of Student’s Interest 49
   4.3.2 The Questionnaire of Student’s Interest 50
   4.3.3 Instrument Validity 50
   4.3.4 Instrument Reliability 50
   4.3.5 Difficulty Index of Evaluation Test 51
   4.3.6 Discriminating Power Index of Evaluation Test 51
4.4 The Data of Research’s Result 52
   4.4.1 The Result of Pretest and Posttest 52
   4.4.2 The Result of Student’s Interest by Observation Sheet 53
   4.4.3 The Result of Student’s Interest by Questionnaire 53
4.5 The Analysis Test of Data 53
   4.5.1 Normality Test 54
      4.5.1.1 Normality Test of Student’s Achievement 54
   4.5.2 Homogeneity Test 55
      4.5.2.1 Homogeneity Test of Student’s Achievement 55
4.6 Student’s Achievement 56
   4.6.1 Student’s Achievement before Teaching Treatment 56
   4.6.2 Student’s Achievement after Teaching Treatment 57
   4.6.3 Gain (Increasing of Student’s Achievement) 57
4.7 Student’s Interest 58
4.8 Lesson Study 60
   4.8.1 Lesson Study at SMAN 2 Medan 61
   4.8.2 Lesson Study at SMAN 3 Medan 62