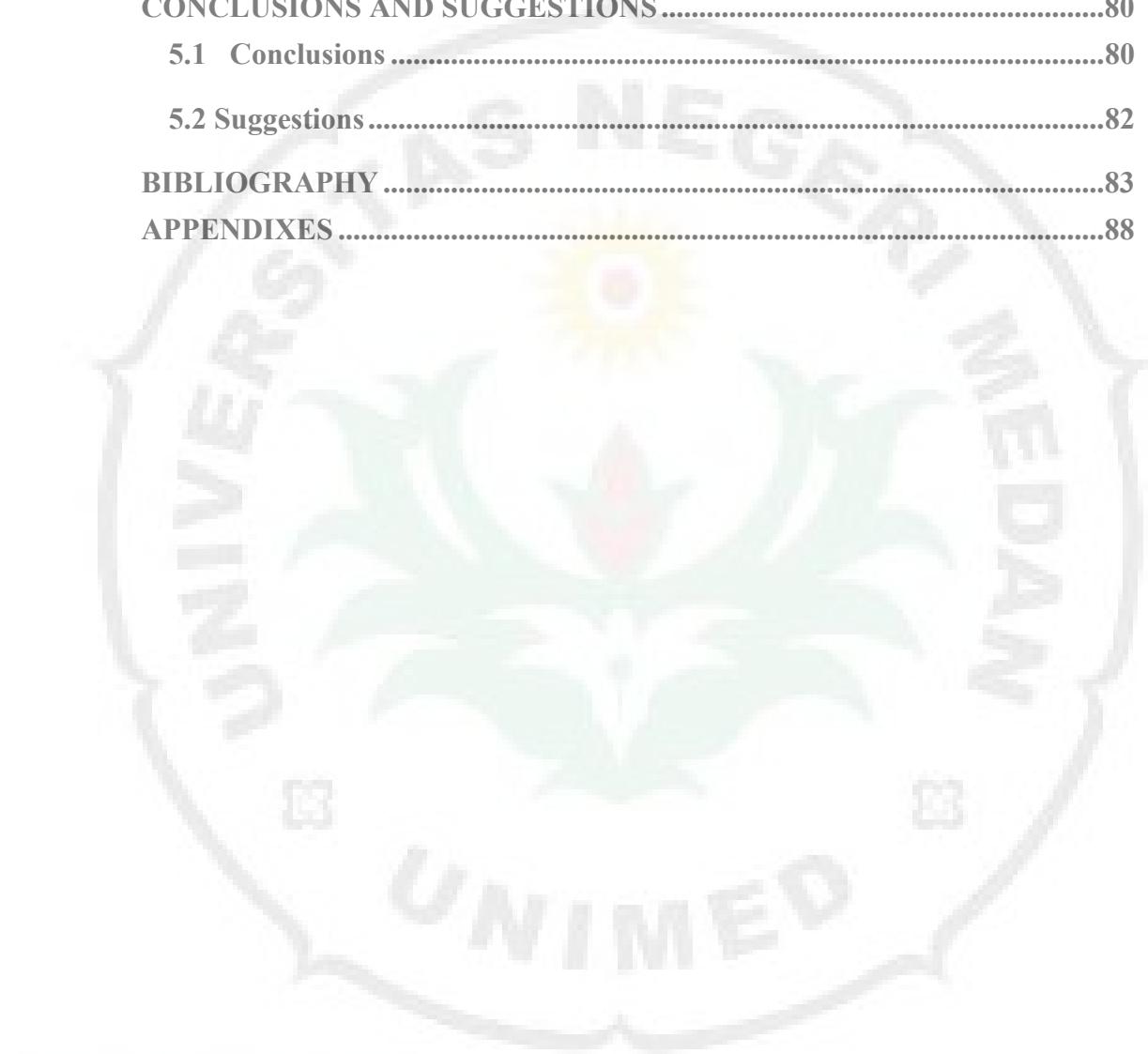


TABLE OF CONTENTS

UNIVERSITAS NEGERI MEDAN	
Thesis:	i
ORIGINAL STATEMENT PAGE	ii
FINAL THESIS PUBLICATION APPROVAL PAGE FOR ACADEMIC INTEREST	ii
BIOGRAPHY	iiiv
ABSTRACT	v
INTRODUCTION.....	vi
TABLE OF CONTENTS.....	x
LIST OF TABLES	xiii
LIST OF FIGURES	xvi
LIST OF CHARTS	xvii
LIST OF APPENDICES	xvii
CHAPTER I.....	1
PRELIMINARY	1
1.1 Background.....	1
1.2 Identification of Problems	4
1.3 Limitations of Problems.....	4
1.4 Formulation of the Problem	5
1.5 Research Objectives	5
1.6 Benefits of the Research.....	6
1.7 Operational Definition	7
LITERATURE REVIEW.....	8
2.1. Theoretical Framework	8
2.1.1. Definition of Learning	8
2.1.2 Definition of Learning Outcomes	8
2.1.3 Definition Learning Model	9
2.1.4 Thinking Aloud Pair Problem Solving (TAPPS) Learning Model .	10
2.1.5 The Definition of Group Division.....	20

2.1.6 Relevant Research	21
2.1.7 Momentum and Impulse Topic	24
2.2 The Framework of Thinking.....	35
2.3 Research Hypothesis	36
CHAPTER III	37
RESEARCH METHOD	37
3.1 Location and Time of Research	37
3.2 Research subject.....	37
3.3 Design of Research and Research Variable	37
3.3.1 Research Design.....	37
3.3.2 Research Variable	38
3.4 Research Procedures.....	38
3.5 Data Collection Techniques.....	42
3.6 Research Instrument.....	42
3.6.1 Test instrument.....	43
3.7 Data Analysis	45
3.7.1 Analysis Requirement Test.....	45
3.7.2 Hypothesis Test.....	48
CHAPTER IV	53
RESULTS AND DISCUSSION	53
4.1 Result	53
4.1.1 Data of Student's Pretest and Posttest	53
4.1.2 Data Analysis.....	60
4.1.3 Hypothesis Testing	66
4.2 Research Discussion	69
4.2.1 Students' Problem-solving Ability	70
4.2.2 Students' Learning Outcomes	74

CHAPTER V	80
CONCLUSIONS AND SUGGESTIONS	80
5.1 Conclusions	80
5.2 Suggestions	82
BIBLIOGRAPHY	83
APPENDIXES	88



*THE
Character Building
UNIVERSITY*