

TABLE OF CONTENTS

	Page
MOTTO AND DEDICATION SHEET	i
APPROVAL SHEET	ii
ORIGINALITY STATEMENT SHEET	iii
PUBLICATION APPROVAL SHEET	iv
BIOGRAPHY	v
ABSTRACT.....	vi
PREFACE.....	vii
TABLE OF CONTENTS.....	ix
LIST OF FIGURES	xi
LIAR OF TABLES	xii
LIST OF APPENDIXES	xiii
CHAPTER I. INTRODUCTION.....	1
1.1 Background	1
1.2 Problem Identification.....	6
1.3 Scope of Problem	6
1.4 Problem Limitation	6
1.5 Formulation of Problem	7
1.6 Objective of Research	7
1.7 Benefits of Research	7
CHAPTER II. LITERATURE REVIEW	9
2.1 Learning Outcomes	9
2.1.1 Definition of Learning Outcomes	9
2.1.2 Learning Outcomes Field	10
2.2 Self-Efficacy	13
2.2.1 Definition of Self-Efficacy	13
2.2.2 Self-Efficacy Dimensions	13
2.2.3 Self-Efficacy Indicators.....	14
2.3 STEM Integration	15
2.3.1 Explanation of Integrating STEM.....	15

2.3.2 The Aspect of	15
2.3.3 STEM Frame Work.....	16
2.3.4 Phase of STEM Education	16
2.4 Problem-Based Learning Model	17
2.4.1 Definition of The Problem-Based Learning Model	17
2.4.2 Characteristics of Problem-Based Learning Model	18
2.4.3 Problem-Based Learning Phases.....	19
2.4.4 The Benefits and Drawbacks of PBL Model	19
2.5 Human Circulatory System.....	20
2.6 Hypothesis.....	28
CHAPTER III. RESEARCH METHODOLOGY	29
3.1 Research Location and Time.....	29
3.2 Population and Sample.....	29
3.3 Research Design and Variables.....	29
3.4 Operational Definition	31
3.5 Research Instruments	32
3.6 Data Collection Technique.....	32
3.7 Research Procedure.....	32
3.8 Instrument Analysis	36
3.8.1 Validation Test of The Instruments	36
3.8.1 Instrument Analyzing Result	39
3.9 Data Analysis Technique	39
CHAPTER IV. RESULT AND DISCUSSION.....	29
4.1 Research Result.....	44
4.1.1. Student’s Learning Outcomes with PBL-STEM on The Topic of Human Circulatory System	44
4.1.2 Students’ Self-Efficacy with PBL-STEM on The Topic of Human Circulatory System	49
4.2 Research Discussion	53
CHAPTER V. CONCLUSION AND SUGGESTION	58
REFERENCES	60
APPENDIX.....	64