

TABLE OF CONTENT

	Pages
APROVAL SHEET	i
ORIGINAL STATEMENT PAGE	ii
FINAL THESIS PUBLICATION APPROVAL PAGE FOR ACADEMIC INTEREST	iii
BIOGRAPHY	iv
ABSTRACT	v
PREFACE	viii
TABLE OF CONTENT	vi
LIST OF FIGURE	xi
LIST OF TABLE	xii
LIST OF APPENDIX	xiii
CHAPTER I INTRODUCING	1
1.1 Background	1
1.2 Problem Identification	4
1.3 Problem Limitation	4
1.4 Problem Formulation	4
1.5 Research Objectivies	4
1.6 Reserach Benefits	5
1.7 Operational Definition	5
CHAPTER II LITERATUR REVIEW	6
2.1 Theoritical Framework	6
2.1.1 Learning Model	6
2.1.2 Problem Based Learning Model	7
2.1.2.1 Charcteristic of Problem Based Learning	9
2.1.2.2 Learning Theory that Supports the Problem Based Learning Model	9
2.1.2.3 Planning and Implementing Problem Based Learning	10
2.1.2.4 The advantages and disadvantages of Problem Based Learning	13

2.1.3	Conventional Model	14
2.1.4	Learning Outcomes	15
2.3	Learning Materials	18
2.3.1	Statics Fluids	18
2.3.2	Pressure	18
2.3.3	Hydrostatics Pressure	18
2.3.4	Pascal Law	19
2.3.5	Archimedes Law	21
2.3.6	Viscosity	22
2.3.7	Capillarity	23
2.4	Relevant Research	24
2.5	Conceptual Framework	26
2.6	Research Hypothesis	27
CHAPTER III RESEARCH METHODS		28
3.1	Research Location and Time	28
3.2	Population and Sampel	28
3.3	Research Variable	28
3.4	Research Type and Design	28
3.5	Research Procedure	29
3.6	Research Instruments	31
3.6.1	Teachers Interview	31
3.6.2	Test Validity	31
3.6.3	Outcomes Learning Test	31
3.7	Validity and Reability of Instrument Test	31
3.7.1	Test Validity	31
3.7.2	Validity of Instrument Test	32
3.7.3	Reability Test	32
3.8	Data Analysis Techniques	33
3.8.1	Average Value and Standard Deviation	33
3.8.2	Normality Test	34

3.8.3	Homogeneity test	34
3.8.4	Hyphotesis Test (t test)	34
3.8.4.1	The Initial Abiliy Test (Two-tailed t Test)	35
3.8.4.2	Hypothesis Test of Posttest (One-tailed t Test)	35
CHAPTER IV RESULT AND DISCUSSION		37
4.1	Result of Research	37
4.1.1	Description of Research Data	37
4.1.2	Content Validity	37
4.1.3	Data of Student's Learning Outcomes	37
4.1.3.1	Data of Pretest in Experiment and Control Class	37
4.1.3.2	Data of Posttest in Experiment and Control Class	38
4.1.4	The Analysis of Data	39
4.1.4.1	Normality Test	39
4.1.4.2	Homogeneity Test	40
4.1.5	Hypothesis Test	40
4.1.5.1	The Initial Ability Test (Two-tailed t Test)	40
4.1.5.2	Hypothesis test of Posttest	41
4.2	Discussion	41
CHAPTER V CLOSING		47
5.1	Conclusion	47
5.2	Suggestion	47
BIBLIOGRAPHY		48

LIST OF FIGURE

		Pages
Figure 2.1	A glass off water	19
Figure 2.2	Hydraulic pump	20
Figure 3.1	Research Procedure Flowchart	30



LIST OF TABLE

		Pages
Table 2.1	Problem Based Learning Model Syntax	13
Table 2.2	The state of the objects when put in fluid	22
Table 2.3	Relevant Research	24
Table 3.1	Research Design	28
Table 3.2	Test grid	31
Table 3.3	Category and Value of Reliability	33
Table 4.1	Data of Pretest in Experiment and Control Class	38
Table 4.2	Data of Posttest in Experiment and Control Class	39
Table 4.3	Normality Test Data	39
Table 4.4	Data of Homogeneity Test	40
Table 4.5	Initial Ability Test	41
Table 4.6	Hypothesis test of Posttest	41



LIST OF APPENDIX

	Pages
Appendix-1 (Lesson Plan)	52
Appendix-2 (Test Instrument)	90
Appendix-3 (Validation Sheet)	102
Appendix-4 (Validity Test Instrument)	121
Appendix-5 (Reliability Test)	122
Appendix-5 (Distribution of Pretest Score in Experiment Class)	125
Appendix-6 (Distribution of Pretest Score in Control Class)	127
Appendix-7 (Distribution of Posttest Score in Experiment Class)	129
Appendix-8 (Distribution of Posttest Score in Experiment Class)	131
Appendix-9 (Calculation of Average, Variance and Deviation Standard)	133
Appendix-10 (Normality Test)	139
Appendix-11 (Homogeneity Test)	143
Appendix-12 (Initial Ability Test)	145
Appendix-13 (Hypothesis Test)	147
Appendix-14 (List of critical values for the Liliefors test)	149
Appendix-15 (List of Percentil Value of t Distribution)	150
Appendix-16 (Table of area normal curve 0 to z)	151
Appendix-17 (Table of F Distribution)	152
Appendix-18 (Research Permit for SMA Parulian 1 Medan)	156
Appendix-19 (Certificate of Completed Research)	157
Appendix-20 (Documentation)	158