

TABLE OF CONTENT

APPROVAL SHEET	Error! Bookmark not defined.
ORIGINALITY STATEMENT SHEET	ii
PUBLICATION APPROVAL SHEET	Error! Bookmark not defined.
BIOGRAPHY	iv
ABSTRACT	v
PREFACE	vi
TABLE OF CONTENT	viii
LIST OF FIGURES	xi
LIST OF TABLES	xii
LIST OF ATTACHMENTS.....	xv
CHAPTER I INTRODUCTION	1
1.1 Background of The Study.....	1
1.2 Problem Identification	8
1.3 Scope of Study.....	8
1.4 Research Question.....	9
1.5 Scope of Problem.....	9
1.6 Study Objective	9
1.7 Research Purposes	9
CHAPTER II LITERATURE REVIEW	11
2.1 Theoretical Framework.....	11
2.1.1 Learning Methods.....	11
2.1.2.1 Understanding the Learning Methods	11
2.1.2.2 Characteristic of the Learning Methods	12
2.1.2 Learning Models.....	12
2.1.3.1 Understanding the Learning Model.....	12
2.1.3.2 Characteristics of the Learning Model	12
2.1.3 Understanding Methods, Tricks, Tips and Ways of Learning.....	13
2.1.4 Problem-Based Learning Model.....	13
2.1.5.1 Understanding Problem-Based Learning Models.....	13

2.1.5.2	Characteristic of Problem-Based Learning.....	14
2.1.5	Discussion Learning Methods	15
2.1.6	Learn.....	15
2.1.7	Learning.....	17
2.1.8	Online Learning.....	17
2.1.9	Self-Learning.....	19
2.1.10	Understanding Effectiveness.....	20
2.2	Relevant Research	22
2.3	Conceptual Framework.....	24
2.3.1	The effectiveness of Online Learning Methods Based on Problem Based Learning	25
2.3.2	The Online Learning Methods Based on Problem Based Learning was able to help studens in understanding limit material.....	26
CHAPTER III RESEARCH METHODOLOGY.....		28
3.1	Research Place and Time.....	28
3.2	Research Subject and Object	28
3.3	Variable and Research Design.....	28
3.4	Data Collection Techniques.....	28
3.5	Research Instruments.....	29
3.6	Research Procedure	29
3.6.1	Introduction and Preparation Stage	29
3.6.2	Teaching Stage	30
3.6.3	Implementation Stage	30
3.6.4	Data Analysis Stage.....	30
3.6.5	Reporting Stage	30
3.7	Data Analysis.....	30
3.7.1	Measuring Learning Effectiveness	30
3.7.2	Percentage Test.....	33
CHAPTER IV RESULT AND DISCUSSION		34
4.1	Description of Research Object.....	34
4.2	Description of Research Data	34
4.2.1	Quality of Instruction Data	34
4.2.1.1	Validity Test and Reliability Test.....	34

4.2.1.2	Validity Test	34
4.2.1.3	Reliability Test	35
4.2.1.4	Percentage Test.....	42
4.2.2	Appropriate Levels of Instruction.....	43
4.2.1.1	Pretest and Posttest Data.....	43
4.2.1.2	Student Pretest and Posttest Data Results:	43
4.2.1.3	Student Pretest Data.....	44
4.2.1.4	Student Posttest Data	44
4.2.1.5	Gain Normalized.....	45
4.2.3	Incentives for Learning.....	46
4.2.3.1	Validity Test and Reliability Test.....	46
4.2.3.2	Validity Test	46
4.2.3.3	Reliability Test	47
4.2.3.4	Percentage Test.....	55
4.2.4	Time of Learning	56
4.2.4.1	Validity Test and Reliability Test.....	56
4.2.4.2	Validity Test	56
4.2.4.3	Reliability Test	56
4.2.4.4	Percentage Test.....	62
4.3	Discussion of The Result.....	63
CHAPTER V	CONCLUSION AND SUGGESTION	65
5.1	Conclusion	65
5.2	Suggestion	65
REFERENCES	67
ATTACHMENT	69



LIST OF FIGURES

Figure 2. 2	Online Learning Methods Concept	27
Figure 3. 1	WhatsApp App.....	29
Figure 3. 2	Google Forms Site.....	29
Figure 3. 3	Quality of Instruction Questionnaire	31
Figure 3. 4	Pretest Questionnaire.....	32
Figure 3. 5	Incentives of Instruction Questionnaire.....	32
Figure 3. 6	Time of Instruction Questionnaire.....	32



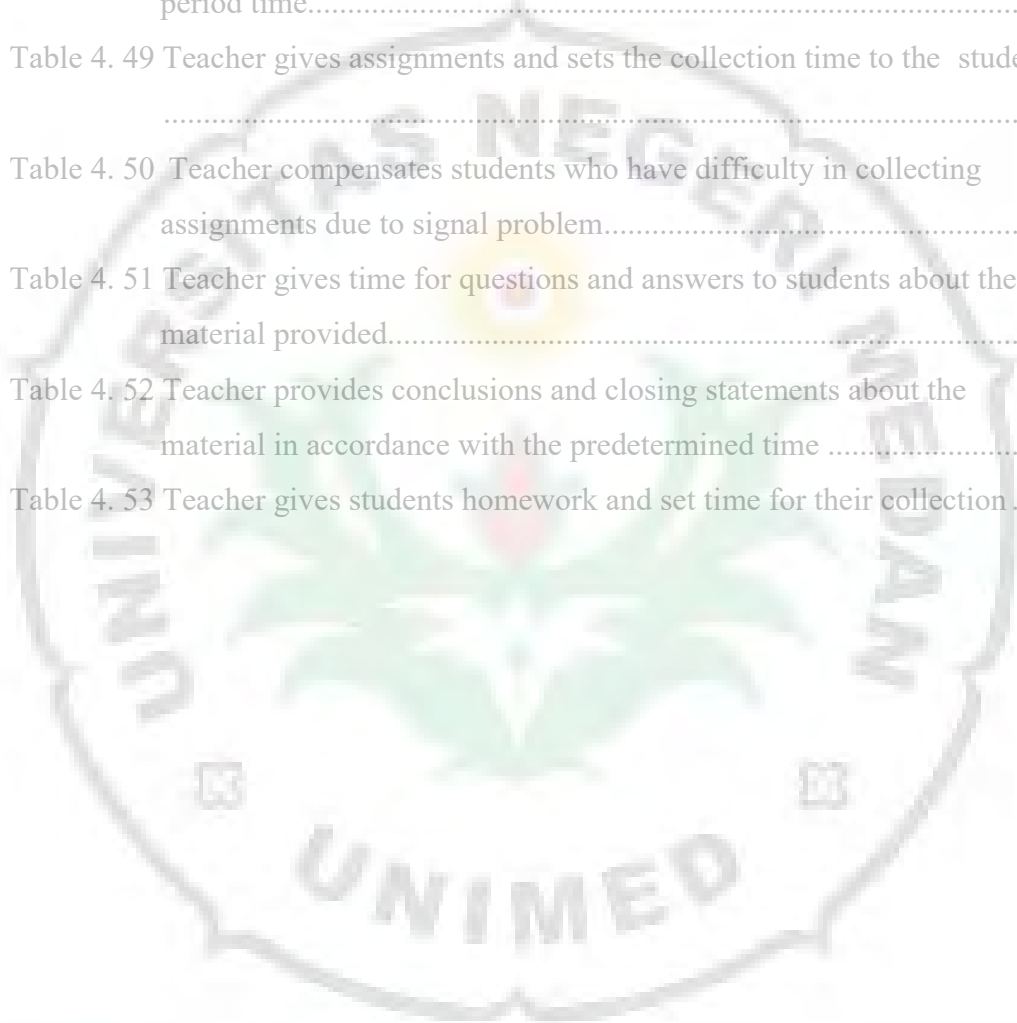
THE
Character Building
UNIVERSITY

LIST OF TABLES

Table 3. 1 Effectiveness Criteria	33
Table 4. 1 Quality of Instruction Validity Test	35
Table 4. 2 Quality of Instruction Reliability Test	35
Table 4. 3 Teacher masteres the subject matter.....	36
Table 4. 4 In teaching, teacher does not read the subject matter too much.....	36
Table 4. 5 Teacher delivers the subject matter with examples.....	37
Table 4. 6 Teacher explains clearly of the student’s questions	37
Table 4. 7 Teacher delivers the material in sequence.....	38
Table 4. 8 Teacher gives warning to students who don’t pay attention to lessons	38
Table 4. 9 Teacher delivers the material in a clear voice	39
Table 4. 10 Teacher helps students who find it difficult to do tasks.....	39
Table 4. 11 Teacher gives attention to the whole student	39
Table 4. 12 Teacher gives students the opportunity to ask questions	40
Table 4. 13 Teacher asks students about subject matter that has not been understood by students	40
Table 4. 14 In teaching, teacher uses language that is easy for students to understood	41
Table 4. 15 Teacher gives the exercise after the material has delivered.....	41
Table 4. 16 Teacher provides objective assessment to all students	42
Table 4. 17 Teacher reprimands students who don’t do their own homework.....	42
Table 4. 18 Student Pretest and Posttest Data Results	43
Table 4. 19 Student Pretest Data	44
Table 4. 20 Student Posttest Data	44
Table 4. 21 Student Pretest and Posttest Statistical Data	45
Table 4. 22 N-Gain Score Category	45
Table 4. 23 N-Gain Percentage Interpretation	46
Table 4. 24 The Result of N-Gain using SPSS	46
Table 4. 25 Incentives of Learning Validity Test	47

Table 4. 26 Incentives of Learning Realiability Test	47
Table 4. 27 I study math on my own.....	48
Table 4. 28 I studied math material before the material was given by the teacher at school	48
Table 4. 29 I'm sure I can master math even though math is considered difficult	49
Table 4. 30 I took the initiative to do the exercises without being asked by the teacher	49
Table 4. 31 I study hard because I want to get satisfactory study results	50
Table 4. 32 If I feel unsure about solving a problem or doing a math assignment, then I will look for the right example as a pattern that I will follow .	50
Table 4. 33 I believe math is very useful for my future	51
Table 4. 34 I studied again the math material that the teacher had explained so that I could better understand the material	51
Table 4. 35 I'm sure I can get high score in math if I study hard	52
Table 4. 36 I became more enthusiastic about learning mathematics when the teacher complimented me on my efforts in solving problems	52
Table 4. 37 I am happy if the teacher gives me the opportunity to explain the material that I have understood to other friends in front of the class .	53
Table 4. 38 I feel challenged to do difficult math problems	53
Table 4. 39 I understand math material better when the teacher gives real examples in everyday life.....	54
Table 4. 40 I am happy if the teacher gives many opportunities to ask questions about mathematics that is not understood	54
Table 4. 41 The teacher's guidance in completing the exercises, makes me enthusiastic in doing the exercise.....	55
Table 4. 42 Time of Learning Validity Test	56
Table 4. 43 Time of Learning Reliability Test.....	57
Table 4. 44 Teacher enters into virtual learning according to predetermined time.....	57
Table 4. 45 Teacher gives students time for students who have difficulty entering the virtual class because of signal	58
Table 4. 46 Teacher begins the lesson at the predetermined time	58

Table 4. 47 Teacher gives the opening of the lesson at the appointed time.....	59
Table 4. 48 Teacher describes the material in accordance with the predetermined period time.....	59
Table 4. 49 Teacher gives assignments and sets the collection time to the students	60
Table 4. 50 Teacher compensates students who have difficulty in collecting assignments due to signal problem.....	60
Table 4. 51 Teacher gives time for questions and answers to students about the material provided.....	61
Table 4. 52 Teacher provides conclusions and closing statements about the material in accordance with the predetermined time	61
Table 4. 53 Teacher gives students homework and set time for their collection..	62



THE
Character Building
 UNIVERSITY

LIST OF ATTACHMENTS

Attachment 1.	Written Draft Online Learning Method Based on PBL.....	69
Attachment 2.	Limit Function	71
Attachment 3.	Learning Implementation Plan (RPP).....	77
Attachment 4.	Instrument for The Quality of Instruction.....	91
Attachment 5.	Instrument for The Appropriate Levels of Instruction.....	93
Attachment 6.	Discussion of Learning Outcomes.....	94
Attachment 7.	Instrument for Incentives for Learning.....	95
Attachment 8.	Instrument for Time of Learning	97
Attachment 9.	Google Form's Result of Quality of Instruction.....	99
Attachment 10.	Google Form's Result of Incentives for Learning.....	104
Attachment 11.	Google Form's Result of Time of Learning	109
Attachment 12.	List Name of XI-MIA 3	113
Attachment 13.	Letter of Observation Permit	114
Attachment 14.	Letter of Research Permit	115
Attachment 15.	Letter of Validation Permit.....	116
Attachment 16.	Research Response Letter from School.....	117
Attachment 17.	Instrument Validation of Quality of Instruction	118
Attachment 18.	Instrument Validation of Appropriate Level of Instruction....	120
Attachment 19.	Instrument Validation of Incentives of Learning.....	122
Attachment 20.	Instrument Validation of Time of Learning.....	124
Attachment 21.	Online Learning Process.....	126

Character Building
UNIVERSITY