

TABLE OF CONTENTS

	Pages
ABSTRACT	i
ACKNOWLEDGEMENT	iii
TABLE OF CONTENTS	iv
LIST OF FIGURES	vii
LIST OF TABLES	viii
LIST OF DIAGRAM	x
LIST OF APPENDIXES	xi
LIST OF ABBREVIATIONS	xii
CHAPTER I INTRODUCTION	1
1.1 The Background	1
1.2 The Identification of Problems	19
1.3 The Focus of the Research	21
1.4 The Problems of the Research	21
1.5 The Objectives of the Research	22
1.6 The Significances of the Research	22
1.7 Terms Related to the Research	25
CHAPTER II REVIEW OF LITERATURE	26
2.1 Theoretical Framework	26
2.1.1 Second Language Learning Theories.....	26
2.1.1.1 Input and Output Theories	27
2.1.2 CALL (Computer-Assisted Language Learning)	28
2.1.2.1 Historical.....	28
2.1.2.2 Integrating Technology in Language Learning.....	29
2.1.2.3 Benefits and Challenges of CALL.....	29
2.1.3 Programming Education	32
2.1.3.1 Rationale	32
2.1.3.2 Coding for Problem Solving and Critical Thinking.....	33
2.1.3.3 Coding and Natural Language	34
2.1.4 CLELL Model.....	38
2.1.4.1 Pedagogical Approach	38
a. Contextual Teaching and Learning (CTL)	38
b. Multimodal Learning.....	43
c. Communicative Language Teaching	44
d. Problem-based Learning (PBL).....	46
2.1.4.2 Integration of Coding and Language Learning.....	53
a. Language and Learning	53
b. Design Principles.....	55
c. Scaffolded Coding Activities for Language Learning.....	56

d. Incorporating Authentic Language Use in Coding Projects.....	58
2.1.4.3 Assessment and Evaluation.....	59
a. Evaluating Language Proficiency and Coding Skills	59
b. Feedback and Reflection in CLELL Model	60
2.1.5 Principle of Teaching English for Young Learners	61
2.1.6 Reading Comprehension.....	63
2.1.7 Grand Design of CLELL Model	65
2.1.7.1 Legal Basis.....	66
2.1.7.2 Philosophical Framework	68
2.1.7.3 Psychological Framework.....	71
2.1.7.4 Sociological Framework	74
2.1.7.5 Practical Framework	76
2.1.8 Developing CLELL Model.....	77
2.1.8.1 Model Syntax	77
2.1.8.2 Model Social System	78
2.1.8.3 Reaction Principle.....	80
2.1.8.4 Model Support System of CLELL.....	81
2.1.8.5 Instructional System.....	81
2.2 Previous Studies.....	83
2.3 Conceptual Framework.....	98
CHAPTER III RESEARCH METHOD.....	101
3.1 The Type of Research.....	101
3.2 Model Development Procedures.....	104
3.3 Data and Source of the Study.....	110
3.4 Techniques of Collecting Data.....	111
3.5 The Instruments of Collecting Data.....	112
3.6 Technique of Data Analysis.....	120
3.7 Time and Location of the Study.....	123
CHAPTER IV RESULTS AND DISCUSSION.....	124
4.1 Results	124
4.1.1 The Teacher Students' Needs in CLELL Model	124
4.1.1.1 Theoretical Concept.....	124
4.1.1.2 Current Phenomena on Teaching Learning Process	126
4.1.1.3 Need Analysis	129
4.1.2 CLELL Model Development	133
4.1.2.1 The Result of First Design	134
4.1.2.2 Results of Learning Guides Design	140
4.1.2.3 CLELL Model Evaluation	144
4.1.2.4 Revisions of First Design.....	144
4.1.2.5 Small Scale Trial.....	146

4.1.2.6 Revisions of Second Design	146
4.1.3 Validity Level of CLELL Model	148
4.1.3.1 The Results of Research Instrument Design	148
4.1.3.2 Instrument Validity Test	151
4.1.3.3 Results of Learning Model Validity	152
4.1.3.4 Results of Learning Guides Validity.....	154
4.1.3.5 Results of Research Instruments Validity.....	157
4.1.4 The Effectiveness Level of CLELL Model	160
4.1.4.1 Results of Experts about Implementing CLELL Model.....	160
4.1.4.2 The Practicality of CLELL Model.....	161
4.1.4.3 The Effectiveness of Learning Model Implementation	161
4.1.4.4 Results of the First Trial	162
4.1.4.5 Results of the Second Trial.....	167
4.1.4.6 Teacher Students' Test Recapitulation	171
4.1.4.7 N -Gain Test.....	172
4.2 Research Findings.....	172
4.3 Discussion.....	175
4.3.1 The Novelty of the Research.....	182
4.3.2 Strengths of the Research.....	187
4.3.3 The Limitations of the Research	188
CHAPTER V CONCLUSIONS, IMPLICATIONS, AND RECOMMENDATIONS ...	189
5.1 Conclusions.....	189
5.2 Implications.....	191
5.3 Recommendations.....	194
REFERENCES.....	195
APPENDICES.....	209

