

CONTENTS	Page No.
Declaration	i
Certificate	ii
Acknowledgement	iii
Dedication	iv
Contents	v
List of tables	viii
List of figure	ix
Abbreviation Used	x
Chapter I : Introduction	1-22
1.0.0 Introduction	1
1.1.0 Nature and Scope of Biology	2
1.1.1 Objectives of Biology	3
1.1.2 Biology Teaching and Learning	6
1.1.3 Biology Syllabus of Class-XI (CBSE)	7
1.2.0 Constructivism	8
1.2.1 Constructivism Theoretical Perspectives	9
1.2.2 Constructivist Learning Design	11
1.2.3 Principles of Constructive Learning Approach	13
1.2.4 Characteristics of Constructivist Classroom	13
1.2.5 7E learning Model of Constructivism in Biology classroom	14
1.2.6 Constructivist Teaching Strategies	15
1.3.0 Rationale	16
1.4.0 Research Questions	19
1.5.0 Statement of the Problem	19
1.6.0 Objectives of the Study	20
1.7.0 Hypothesis of the Study	20
1.8.0 Operational Definition of the Terms	20
1.9.0 Explanation of Terms	20
1.10.0 Delimitation of the Proposed Study	21
1.11.0 Scheme of Chapters	21
Chapter II: Review of Related Literature	23- 40
2.0.0 Introduction	23
2.1.0 Studies on Constructivism	23

CONTENTS		Page No.
2.2.0	Studies on Laboratory Experiment	32
2.3.0	Studies on Educational Videos	34
2.4.0	Studies on Jigsaw	36
2.5.0	Studies on Field Work	37
2.6.0	Summary of the Review of Related Literature	38
2.7.0	Implication of Review for the Present Study	39
Chapter III: Methodology		41-54
3.0.0	Introduction	41
3.1.0	Objectives of the Study	41
3.2.0	Hypothesis of the Study	41
3.3.0	Research Design	42
3.4.0	Population	42
3.5.0	Sample	42
3.6.0	Tool of Data Collection	43
3.7.0	Development of Constructive Learning Strategies	44
3.8.0	Implementation of the Constructive Learning Strategies	45
3.9.0	Procedure of Data Collection	48
3.10.0	Data Collection	54
3.11.0	Procedure for the Data Analysis	54
Chapter IV: Data Analysis, Interpretation and Discussion		55-69
4.0.0	Introduction	55
4.1.0	Achievement of Experimental and Control Group in Biology	55
4.2.0	Reaction of Students towards Constructive Learning Strategies	57
4.3.0	Findings of the Study	67
4.4.0	Discussion	67
Chapter V: Summary		70-83
5.0.0	Introduction	70
5.1.0	The Review Of Related Literature	71
5.2.0	Rationale	72
5.3.0	Research Questions	75
5.4.0	Statement of the Problem	75
5.5.0	Objectives of the Study	75

CONTENTS	Page No.
5.6.0 Hypotheses	76
5.7.0 Explanation Of Terms	76
5.8.0 Operational Definition of Terms	76
5.9.0 Delimitation of the Study	76
5.10.0 Method of the Study	76
5.11.0 Research Design	76
5.12.0 Population	77
5.13.0 Sample	77
5.14.0 Tool for Data Collection	78
5.15.0 Development of Constructive Learning Strategies	78
5.16.0 Procedure of Data Collection	79
5.17.0 Procedure for the Data Analysis	80
5.18.0 Major Findings of the Study	80
5.19.0 Suggestions for Future Research	80
5.20.0 Conclusion	81
Bibliography	84-89
Appendices	90-148
Appendix I: Constructive Learning Strategies (CLS)	92-124
Appendix II: Blue Print of the Achievement Test	125
Appendix III: Biology Achievement Test	126-142
Appendix IV: Reaction Scale	143-146
Appendix V : The Published Research Paper	
Appendix IV: Thesis (CD)	