## LIST OF CONTENTS

Contents	Page No.
* Certificate	i
✤ Acknowledgement	ii
✤ Table of Content	iv
<ul><li>List of Appendices</li></ul>	vii
<ul><li>List of Tables</li></ul>	viii
List of Figures and Graphs	X
<ul> <li>List of Abbreviations</li> </ul>	xii

## **TABLE OF CONTENTS**

Sr. No.	Contents	Page No.
CHAPTER	1 <u>CONCEPTUAL FRAMEWORK</u>	1-57
1.0	Introduction	1
2.0	Education in India	2
2.1	Scenario of Teacher Education in India	2
3.0	ICT in Education with Special Reference to Teacher	5
	Education	
3.1	Challenges of Technology integrated Teacher	6
	Education	
3.2	ICT and Paradigm Shift : Teacher Education	8
3.3	ICT Skills	11
3.4	Changing role of Teacher in Technology driven	15
	Education	
3.5	Various Recommendations for Integrating ICT in	18
	Teacher Education	
3.6	Present Scenario of ICT in Teacher Education	21
3.7	ICT as a Core Course at Pre-Service level	23

3.8	Approaches to ICT integration in Teacher Education	24
4.0	Scenario of Secondary School Science	27
5.0	Concept of Multimedia	32
5.1	Multimedia in Educational Context	33
5.2	Social Media and Social Networking Sites	40
5.3	Characteristics of Multimedia	45
5.4	Principles for the Design of Multimedia Learning	50
	Package	
6.0	Rationale of the Study	52
7.0	Statement of the Problem	56
7.1	Objectives of the Study	56
7.2	Hypothesis of the Study	56
7.3	Operationalization of the Terms	57
7.4	Explanation of the terms	57
7.5	Delimitation of the Study	57

СНАРТЕР	<b>R 2 REVIEW OF RELATED LITERATURE</b>	58-84
2.0	Introduction	58
2.1	Studies related to Utility of different Media in	59
	Teaching Learning	
2.1.1	Studies related to Computer Assisted Instruction	59
2.1.2	Studies related to Audio-Video and Animation in	63
	Education	
2.1.3	Studies related to Multimedia	64
2.2	Studies related to Technology Integration in	69
	Teaching-Learning	
2.3	Studies related to Attitude of Student-teachers on ICT	76
	Integration	
2.4	Studies related to ICT Skills	79
2.5	Implications of Review of related Studies	82
CHAPTER	<b>R3 RESEARCH METHODOLOGY</b>	85-106
3.0	Introduction	85
3.1	Objectives of the Study	85

3.2	Hypothesis of the Study	86
3.3	Methodology	86
3.3.1	Design of the Study	86
3.3.2	Population of the Study	87
3.3.3	Sample of the Study	87
3.4	Tools and Techniques for Data Collection	87
3.5	Development of Multimedia Learning Package	89
3.5.1	Planning and Analysis of Content	89
3.5.2	Assembling developed learning materials	93
3.5.3	Drafting Video Script and Development of Video	100
3.5.4	Tryout of the Multimedia Package	101
3.6	Procedure of the Study	102
3.7	Procedure of Data Analysis	105
CHAPTE	<b>R 4 DATA ANALYSIS, INTERPRETATION</b>	107-131
	AND DISCUSSION	
4.0		
4.0	Introduction	107
4.0 4.1	Introduction Academic Achievement of Experimental and Control	107 108
	Academic Achievement of Experimental and Control	
4.1	Academic Achievement of Experimental and Control group	108
4.1 4.2	Academic Achievement of Experimental and Control group Content Analysis of Digital Lesson Plan Presentation	108 110
<ul><li>4.1</li><li>4.2</li><li>4.3</li></ul>	Academic Achievement of Experimental and Control group Content Analysis of Digital Lesson Plan Presentation Data analysis of Perception Scale	108 110 113
4.1 4.2 4.3 4.4	Academic Achievement of Experimental and Control group Content Analysis of Digital Lesson Plan Presentation Data analysis of Perception Scale Data Analysis of Reaction scale	108 110 113 122
4.1 4.2 4.3 4.4 4.5	Academic Achievement of Experimental and Control group Content Analysis of Digital Lesson Plan Presentation Data analysis of Perception Scale Data Analysis of Reaction scale Major Findings of the Study	108 110 113 122 127
<ul> <li>4.1</li> <li>4.2</li> <li>4.3</li> <li>4.4</li> <li>4.5</li> <li>4.6</li> </ul>	Academic Achievement of Experimental and Control group Content Analysis of Digital Lesson Plan Presentation Data analysis of Perception Scale Data Analysis of Reaction scale Major Findings of the Study Result and Discussion	108 110 113 122 127 129
<ul> <li>4.1</li> <li>4.2</li> <li>4.3</li> <li>4.4</li> <li>4.5</li> <li>4.6</li> </ul>	Academic Achievement of Experimental and Control group Content Analysis of Digital Lesson Plan Presentation Data analysis of Perception Scale Data Analysis of Reaction scale Major Findings of the Study Result and Discussion Result and Discussion on Change in Perceptions through Multimedia Learning Package	108 110 113 122 127 129
4.1 4.2 4.3 4.4 4.5 4.6 4.6.1	<ul> <li>Academic Achievement of Experimental and Control</li> <li>group</li> <li>Content Analysis of Digital Lesson Plan Presentation</li> <li>Data analysis of Perception Scale</li> <li>Data Analysis of Reaction scale</li> <li>Major Findings of the Study</li> <li>Result and Discussion</li> <li>Result and Discussion on Change in Perceptions</li> <li>through Multimedia Learning Package</li> </ul>	108 110 113 122 127 129 131

**BIBLIOGRAPHY** 

160-174

**CHAPTER 6**