TABLE OF CONTENTS

	Content	Page No.
Declaration		I
Certificate		II
Acknowledgement		III
Table of Contents		V
List of Tables		IX
List of Figures		XI
List of Abbreviations		XII
List of Appendices		XIII
СНАРТ	ER I: CONCEPTUAL FRAMEWORK	1-34
1.0.0	Introduction	1
1.1.0	Science and Scientific Method	3
1.2.0	Meaning and Definitions of Scientific Temper	5
1.3.0	Components of Scientific Temper	7
1.4.0	Scientific Temper in India	12
1.5.0	Government Initiatives for the Promotion of	16
	Scientific Temper	
1.6.0	Importance of Scientific Temper	17
1.7.0	Need of Scientific Temper	19
1.8.0	Hurdles in the Development of Scientific Temper	20
1.9.0	Scientific Temper and Secondary School Students	21
1.10.0	Development of Scientific Temper through Various	24
	Subjects	
1.11.0	Role of Teacher in Developing Scientific Temper	27
1.12.0	Strategies for Developing Scientific Temper	28
1.13.0	Rationale of the Study	30
1.14.0	Statement of Problem	32
1.15.0	Objectives	32
1.16.0	Hypotheses	32
1.17.0	Explanation of the Terms	33
1.18.0	Operational Definition of the Terms	33

1.19.0	Delimitation	33
1.20.0	Scheme of Chapterisation	34
СНАРТ	ER II: REVIEW OF RELATED LITERATURE	35-81
2.0.0.	Introduction	35
2.1.0.	Studies Conducted on Scientific Temper	35
2.2.0.	Studies Conducted on Scientific Thinking	54
2.3.0.	Studies Conducted on Scientific Habit of Mind	57
2.4.0.	Studies Conducted on Scientific Attitude	59
2.5.0.	Overview	72
2.6.0.	Implication	80
СНАРТ	ER III: METHODOLOGY	82-99
3.0.0.	Introduction	82
3.1.0.	Research Design	82
3.2.0.	Population	83
3.3.0.	Sample and Sampling Method	83
3.4.0.	Variables of the Study	83
3.5.0.	Tools of the Study	84
3.6.0.	Development of Scientific Temper Scale	85
3.7.0.	Development of Strategy	90
3.7.1.	Step 1: Identification of Chapters in Mathematics, Science and Social Science	90
3.7.2.	Step 2: Content Analysis and Scientific Temper Component Identification	91
3.7.3.	Step 3: Strategies used for the development of scientific temper	95
3.7.4.	Step 4: Preparation of Lesson Plan	98
3.8.0.	Implementation of Developed Strategy	98
3.9.0.	Data Collection Procedure	99
3.10.0.	Data Analysis	99
СНАРТ	100-134	
INTERPRETATION		
4.0.0.	Introduction	100

4.1.0.	Enhancement of Scientific Temper among the	100
	Students of Control Group due to Regular	
	Teaching Learning Process	
4.2.0.	Enhancement of Scientific Temper among the	107
	Students of Experimental Group due to Implication	
	of Developed Starategies	
4.4.0.	Effectiveness of the Strategies in terms of Post Test	117
	of Students in Control and Experimental Group	
4.5.0.	Effectiveness of the Strategies in terms of the	128
	Reactions of the Students	
СНАРТ	TER V: MAJOR FINDINGS AND DISCUSSION	135-140
5.0.0.	Introduction	135
5.1.0.	Major Findings of the Study	135
5.2.0.	Discussion of the Major Finding	136
5.2.1.	Enhancement of Scientific Temper among the	136
	Students of Control Group due to Regular	
	Teaching Learning Process	
5.2.2.	Enhancement of Scientific Temper among the	137
	Students of Experimental Group due to Implication	
	of Developed Starategies	
5.2.3.	Effectiveness of the Strategies in terms of Post Test	138
	of Students in Control and Experimental Group	
5.2.4.	Effectiveness of the Strategies in terms of the	139
	Reactions of the Students	
5.3.0.	Conclusion	140
СНАРТ	TER VI: SUMMARY AND CONCLUSION	141-157
6.0.0	Introduction	141
6.1.0.	Review of Related Literature	143
6.2.0.	Rationale of the Study	145
6.3.0.	Statement of Problem	148
6.4.0.	Objectives	148
6.5.0.	Hypotheses	148
	-	

6.6.0.	Explanation of the Terms	148
6.7.0.	Operational Definition of the Terms	148
6.8.0.	Delimitation	149
6.9.0.	Design of the Study	149
6.10.0.	Population	150
6.11.0.	Sample	150
6.12.0.	Variables of the Study	150
6.13.0.	Tools of data collection	150
6.14.0.	Development of strategies	151
6.15.0.	Implementation of strategies	152
6.16.0.	Data Collection Procedure	152
6.17.0.	Data Analysis	152
6.18.0.	Major Findings	152
6.19.0.	Educational Implication of the Present Study	153
6.20.0.	Suggestions	154
6.20.1.	Suggestions for Teachers and Teacher Educators	154
6.20.2.	Suggestion for the School Authorities	155
6.20.3.	Suggestion for Students	155
6.20.4.	Suggestion for Education Boards and Policy Makers	155
6.20.5.	Suggestion for Further Research	156
6.21.0.	Conclusion	157
REFRENCES		158-169
APPENDICES		170-211