

TABLE OF CONTENTS

Page No.

ACKNOWLEDGEMENT

CONTENTS

LIST OF TABLES

LIST OF APPENDICES

1.	CHAPTER-I	1-21
	INTRODUCTION	1
1.1	Importance of Mathematics	1
	1.1.1. Mathematics as a subject.	2
	1.1.2 Need for Mathematics.	4
1.2	Growth of Mathematics at Primary level.	4
1.3	Importance of textbook.	6
	1.3.1 Functions of textbook.	8
	1.3.2 Characteristics of Textbooks in General.	9
1.4	Textbooks in world.	12
	1.4.1 Textbooks in India.	14
1.5	Nationalisation of textbooks.	16
1.6	Rationale of the study.	17
1.7	Statement of the problem.	19
1.8	Objectives of the study.	19
1.9	Definition of terms.	20
1.10	Delimitations of the study.	21
2.	CHAPTER-II	22-51
	CONCEPTUAL FRAMEWORK OF THE STUDY	
2.1	Introduction.	22
2.2	Brief History of textbooks in India.	23

2.3	Brief History of textbooks outside India.	27
2.4	Importance of textbooks Evaluation.	29
2.5	Approaches of textbook evaluation.	
2.5.1	Empirical approach to evaluation.	30
2.5.2	Rationale approach to evaluation.	31
2.6	Criteria for evaluation.	33
2.6.1	Requirement of good mathematics textbook.	33
2.6.2	Aspectwise features of textbook evaluation.	37
2.6.3	Need of the learner.	45
2.6.4	Requirement of the subject.	45
2.6.5	Requirement of teaching and learning situation.	45
2.6.6	Need for curriculum and syllabus.	46
2.7	Development of criteria for the present study.	46
2.7.1	Criteria for evaluation according to the national council of teachers of mathematics. (1965).	47
2.7.2	Criteria related to physical characteristic.	50
2.7.3	Criteria developed by various researchers.	51
3.	CHAPTER-III	52-83
	REVIEW OF THE RELATED LITERATURE	
3.1	Introduction.	52
3.2	Research abroad.	53
3.2.1	Content analysis.	53
3.2.2	Studies on readability of the textbook.	57
3.2.3	Studies on textbook illustrations.	59
3.2.4	Studies on end of chapter exercises.	60

3.2.5	Status survey of textbooks.	61
3.2.6	Evaluation of textbooks.	62
3.3	Researches in India.	64
3.3.1	Content analysis.	65
3.3.2	Studies on readability.	67
3.3.3	Studies on end of chapter exercises.	68
3.3.4	Evaluation of textbooks.	69
3.3.5	Status survey and miscellaneous studies on textbooks.	75
3.4	Implications of related researches for the present study.	77
3.5	An overview of the researches reviewed and their implications for the present study.	78
3.5.1	Studies in India on textbook evaluation.	81
3.5.2	Studies outside India on textbook evaluation.	82
3.5.3	Studies in gujarat on textbook evaluation.	83
4.	CHAPTER-IV METHODOLOGY	84-111
4.1	Introduction.	84
4.4.1	Content analysis as a Research Technique.	84
4.2	Methodology for objective-I	88
4.2.1	Tools for data collection.	89
4.2.2	Procedure of data collection.	90
4.3	Methodology for objective-II	90
4.3.1	Criteria for evaluation.	90
4.3.2	Sample.	92
4.3.3	Tools for data collection.	93
4.3.4	Questionnaire for teachers.	93

4.3.5	Questionnaire for students.	96
4.3.6	Interview schedule for students.	97
4.3.7	Interview schedule for students.	97
4.3.8	Procedure of data collection.	98
4.3.9	Data analysis.	99
4.4	Methodology for objective-III	100
4.4.1	Criteria for evaluation.	101
4.4.2	Tools for data collection.	103
4.4.3	Procedure of data collection.	103
4.5	Methodology for objective-IV	104
4.5.1	Sample	104
4.5.2	Tools	105
4.5.3	Procedure of data collection.	105
4.5.4	Data analysis.	106
4.6	Methodology for objective-V	106
4.6.1	Criteria for evaluation.	106
4.6.2	Tools for data collection.	108
4.6.3	Procedure of data collection.	108
4.7	Methodology to study experts opinion.	109
4.7.1	Sample	109
4.7.2	Tools for data collection.	109
4.7.3	Procedure of data collection.	110
4.7.4	Data analysis.	111
5.	CHAPTER-V	112-194
	ANALYSIS AND INTERPRETATION OF DATA	
5.1	Introduction.	113
5.2	Present system of textbook preparation and production in Gujarat.	113

5.3	Fulfilment of curriculum and syllabus requirement.	115
5.4	Background of authors, reviewers and artist.	115
5.5	Assessment of the books according to the curriculum requirement.	117
5.5.1	Teachers' rating on mathematics textbook of standard-V on the basis of fulfilment of their needs.	118
5.5.2	Teachers' views of mathematics textbooks of standard-V textbook.	123
5.5.3	Interview with teachers' for standard-V textbook.	126
5.5.4	Students' rating on mathematics textbook of standard-V.	127
5.5.5	Students views on mathematics textbook on the basis of fulfilment of their needs of standard-V.	130
5.5.6	Interview with students for standard V textbook.	132
5.5.7	Content analysis for standard-V.	134
5.6	Teachers' rating on mathematics textbook standard-VI on the basis of fulfilment of their needs.	148
5.6.1	Teachers' views on mathematics textbook of standard-VI.	152
5.6.2	Interview with teachers' for standard-VI textbook.	155
5.6.3	Students rating on mathematics textbook of standard-VI.	157
5.6.4	Students views on mathematics textbook of standard-VI.	160
5.6.5	Interview with students of standard-VI.	162
5.6.6	Content analysis for standard-VI.	165

5.7	Teachers' rating on mathematics textbook of standard-VII on the basis of fulfilment of their needs.	177
5.7.1	Teachers' views on mathematics textbook of standard-VII.	181
5.7.2	Interview with teachers' for standard-VII textbook.	184
5.7.3	Students rating on mathematics textbook of standard-VII.	186
5.7.4	Students views on mathematics textbook standard-VII.	189
5.7.5	Interview with students of standard-VII.	191
5.7.6	Content analysis for standard-VII.	194
6.	CHAPTER-VI FINDINGS OF THE STUDY AND DISCUSSION	208 249
6.1	Introduction.	208
6.2	Findings related to the textbook of standard-V.	209
6.2.1	Findings related to objective No.1. Academic aspects of the textbook of standard-V.	209
6.2.2	Findings related to objective No.2. Physical aspects of the textbook of standard-VI.	212
6.2.3	Findings related to objective No.3. End-of-chapter exercises of the textbook of standard-V.	213
6.2.4	Findings related to objective No.4. Students and teachers opinion regarding the suitability of the textbook of standard-V.	213
6.2.5	Findings related to objective No.5. Assessment of the textbook on the basis of the prescribed syllabus of Gujarat State for standard-V.	214
6.2.6	Overall views in general.	215

6.3	Findings related to the textbook of standard-VI.	215
6.3.1	Findings related to objective No.1 Academic aspects of the textbook of standard-VI.	215
6.3.2	Findings related to objective No.2 Physical aspects of the textbook of standard-VI.	218
6.3.3	Findings related to objective No.3. End-of-chapter exercises of the textbook of standard-VI.	219
6.3.4	Findings related to objective No.4. Students', teachers' opinion regarding the suitability of the textbook of standard - VI.	220
6.3.5	Findings related to objective No.5. Assesment of the textbook on the basis of prescribed syllabus of Gujarat State for standard-VI.	221
6.3.6	Overall views in general.	222
6.4	Findings related to the textbook of standard-VII.	222
6.4.1	Findings related to objective No.1. Academic aspects of the textbook of standard-VII.	223
6.4.2	Findings related to objective No.2. Physical aspects of the textbook of standard-VII	227
6.4.3	Findings related to objective No.3. End-of-chapter exercises of the textbook of standard-VII.	227
6.4.4	Findings related to objective No.4. Students', teachers' opinion regarding the suitability of the textbook of standard- VII.	228
6.4.5	Findings related to objective No.5. Assesment of the textbook on the basis of prescribed syllabus of Gujarat State for standard-VII.	229
6.4.6	Overall views in general.	230

6.5	Discussion based on the Academic aspects of the textbooks (of std. V, VI and VII) (Findings of objective - 1.)	231
6.6	Discussion based on the physical aspects of the textbooks (of standard V, VI and VII). (Findings of objective - 2.)	235
6.7	Discussion based on the End-of-chapter exercises of the textbooks (of standard V, VI and VII). (Findings of objective - 3).	238
6.8	Discussion arising out of important issues noted among the opinion of students, teachers and investigator. (Findings of objective - 4.)	241
	6.8.1 Opinion of the students.	244
	6.8.2 Opinion of the teachers.	245
6.9	Discussion based on assesment of the textbooks on the basis of prescribed syllabus. (Findings of objective 5.)	248
6.10	Discussion based on the methodology used in the textbooks (of standard V, VI, VII).	249
7.	CHAPTER - VII SUMMARY, CONCLUSIONS AND SUGGESTIONS.	254-278
7.1	Introduction.	254
7.2	Textbooks in world.	255
	7.2.1 Textbooks in India.	256
	7.2.2 Textbooks improvement programme.	257
7.3	Nationalisation of textbooks.	259
	7.3.1 Implementation of Nationalisation of textbooks in various states.	259
7.4	Review of the related literature.	260
7.5	Rationale of the study.	261
	7.5.1 Statement of the problem.	263
	7.5.2 Objectives of the study.	263

7.5.3	Explanation of the terms.	264
7.5.4	Delimitations of the study.	265
7.6	Criteria for evaluation.	265
7.7	Methodology.	266
7.7.1	Sample.	267
7.7.2	Tools.	267
7.7.3	Collection of Data.	269
7.7.4	Analysis of Data.	271
7.8	Major conclusions of the study.	271
7.8.1	Major conclusion of standard-V textbook.	271
7.8.2	Major conclusion of standard-VI textbook.	273
7.8.3	Major conclusion of standard-VII textbook.	274
7.9	Suggestions for the improvement of the present mathematics textbooks of standard V, VI and VII.	276
7.10	Suggestions for further research.	277
	BIBLIOGRAPHY	279-299
	APPENDICES	