

CONTENTS

	Page No.
CERTIFICATE	i
DECLARATION	ii
ACKNOWLEDGEMENT	iii-iv
CONTENTS	v-vii
LIST OF TABLES	viii-ix
LIST OF FIGURES	x
ABBREVIATIONS USED	xi
PREFACE	xii-xiii
 CHAPTER I: CONCEPT OF INCLUSIVE EDUCATION	 (1-11)
1.1 INTRODUCTION	1
1.2 CONCEPT OF INCLUSIVE EDUCATION	1
1.2.1 Meaning and Definition of Inclusive Education	3
1.2.2 Objectives of Inclusive Education	4
1.2.3 Legislative Acts on Inclusion	5
1.3 STATUS OF INCLUSIVE EDUCATION IN INDIA	6
1.4 ROLE OF TEACHER IN INCLUSIVE EDUCATION	6
1.5 BASIC SKILLS NEEDED FOR SUCCESSFUL INCLUSION	7
1.6 TEACHERS' TRAINING IN INCLUSIVE EDUCATION	8
1.7 RESEARCHES ON TEACHING IN INCLUSIVE EDUCATION	9
 CHAPTER II: CONCEPT OF TEACHING APTITUDE	 (12-23)
2.1 INTRODUCTION	12
2.1 CONCEPT OF APTITUDE	12
2.1.1 Meaning and Definition of Aptitude	13
2.1.2 Characteristics of Aptitude	15
2.1.3 Measuring Aptitude	15
2.2 TEACHING APTITUDE	16
2.3 INCLUSIVE EDUCATION AND TEACHING APTITUDE	18
2.4 SCOPE OF PRESENT INVESTIGATION	20
2.5 REVIEW OF TEACHING APTITUDE TESTS CONSTRUCTED SO FAR IN INDIA	20
 CHAPTER III: CONSTRUCTION OF INCLUSIVE EDUCATION TEACHING APTITUDE TEST	 (24-43)
3.1 INTRODUCTION	24
3.2 JOB ANALYSIS	25
3.2.1 Components of IETAT	28
3.2.1.1 Knowledge about Inclusive Education	28
3.2.1.2 Ability of Identify Disabilities	29
3.2.1.3 Attitude towards Teaching CwSN	29
3.2.1.4 Ability to Adapt Inclusive Teaching Methods	29
3.2.1.5 Skills to Manage Inclusive Classroom	30

3.3	TENTATIVE SELECTION OR CONSTRUCTION OF TEST	31
3.3.1	Content Validity of Items	32
3.3.2	Items Used in the IETAT	40
CHAPTER IV: PILOT TESTING OF IETAT		(44-62)
4.1.	INTRODUCTION	44
4.2	PILOT TESTING	44
4.2.1	Sample for Pilot Testing	44
4.2.2	Instructions to Respondents	49
4.2.3	Administration of Pilot Test	51
4.2.4	Time Limit	51
4.2.5	Scoring	52
4.2.6	Correction of Chance Success	52
4.3	ITEM ANALYSIS	53
4.3.1	Item Difficulty	54
4.3.2	Item Discrimination Indices	55
4.4	ITEM SELECTION	59
CHAPTER V: ADMINISTRATION OF THE FINAL IETAT		(63-82)
5.1	INTRODUCTION	63
5.2	THE FINAL IETAT	63
5.2.1	Validity of Items selected in the IETAT	64
5.2.2	The Answer Sheet	72
5.2.3	Sample Selection	72
5.2.3.1	<i>Characteristics of Sample</i>	74
5.3	ADMINISTRATION OF IETAT	79
5.3.1	Procedure Followed for Administration of IETAT	80
5.3.2	Time Limit	80
5.3.3	Physical Setup	81
5.3.4	Mental Setup	81
5.3.5	Scoring	81
5.3.6	Key for Manual Scoring	82
5.3.7	Compilation of Data	82
CHAPTER VI: STATISTICAL ANALYSIS OF THE DATA		(83-138)
6.1	INTRODUCTION	83
6.2	MEASURES OF CENTRAL TENDENCY AND VARIABILITY OF THE IETAT SCORES	84
6.3	RELIABILITY OF MEAN, MEDIAN AND SD OF WHOLE IETAT	86
6.4	DECIDING THE NATURE OF DISTRIBUTION OF IETAT SCORES	88
6.4.1	Calculation of Sk of the Distribution	89
6.4.2	Calculation of Ku of the Distribution	90
6.4.3	Graphical Representation of Test Scores	91
6.4.3.1	<i>Frequency Polygon</i>	92
6.4.3.2	<i>The 'Smoothed' Frequency Polygon</i>	93

6.4.3.3	<i>Histogram</i>	95
6.4.3.4	<i>Cumulative Frequency Curve</i>	96
6.4.3.5	<i>Cumulative Percentage Curve</i>	97
6.4.4	Best Fitting Normal Distribution Curve	99
6.4.5	Chi-square Test of the Hypothesis of Normal Distribution	102
6.5	RELIABILITY OF THE IETAT	110
6.5.1	Application of Split Half Method	111
6.5.2	Application of the Kuder-Richardson Method [‘Whole Test’ – ‘Total Sample’]	115
6.5.3	Application of Hoyt’s Method [‘Whole Test’ – ‘Total Sample’]	118
6.5.4	Reliability in terms of True Scores and Measurement Errors	121
6.6	VALIDITY OF THE IETAT	123
6.6.1	Content Validity	123
6.6.2	Construct Validity	124
6.6.3	Predictive Validity	124
6.7	NORMS OF THE IETAT	129
6.7.1	Standard Score Norms	129
6.7.2	The T-Score Norms	131
6.7.3	Percentile Norms	133
6.7.3.1	<i>Percentile Ranks [PR]</i>	134
6.7.4	Letter Grades	136
6.7.5	Using the Test Norms	138

CHAPTER VII: FACTOR ANALYSIS OF THE TEST DATA (139-146)

7.1	INTRODUCTION	139
7.2	METHODS OF FACTOR ANALYSIS	139
7.3	THURSTON’S CENTROID METHOD OF FACTORING	140
7.3.1	The Correction Matrix	141
7.4	THE ANALYSIS	141
7.5	CRITERIA FOR SIGNIFICANT FACTORS	145

CHAPTER VIII: SUMMARY, CONCLUSION AND SUGGESTIONS FOR THE TEST USERS (147-154)

8.1	INTRODUCTION	147
8.2	THE IETAT	147
8.2.1	Population	148
8.2.2	Sample	148
8.2.3	Mode of Administration of IETAT	148
8.2.4	Time Limit	148
8.2.5	Scoring	148
8.3	THE RESULT	148
8.4	CONCLUSION	150
8.5	SUGGESTIONS FOR TEST USERS	152

REFERENCES (155-164)

APPENDICES (165-284)

LIST OF TABLES

Table No.	Title of the Table	Page No.
Table 3.1	Experts Rating on the Traits' Important for Teaching in Inclusive Education	26
Table 3.2	Grouping of Traits	27
Table 3.3	Factor wise Number of Items Constructed in the IETAT	31
Table 3.4	SMEs Ratings and CVR of the Items of IETAT	33
Table 3.5	Distribution of Items as per CVR	35
Table 3.6	SMEs' Suggestions for the Improvement of Items of IETAT	36
Table 3.7	Section wise Number of Items Retained in the Pilot Form of IETAT	39
Table 3.8	Section wise Items Included in Pilot Form of IETAT	43
Table 4.1	Internal Consistency Data [U & L], Internal Consistency Index [r] and Difficulty Value [D] of the Items	56
Table 4.2	Distribution of Items of Pilot Test as per Henning's Guidelines of Item Difficulty	59
Table 4.3	Distribution of Items of Pilot Test According to Difficulty Indices on the Lines of W. Summer	60
Table 4.4	Distribution of Items of Pilot Test According to Difficulty Indices on the Lines of Garrett	61
Table 4.5	Distribution of Items of Pilot Test based on Ebel's Guidelines of Discrimination Power	62
Table 5.1	Section wise Items in Final IETAT	63
Table 5.2	CVR, Difficulty Value [D] and Internal Consistency Indices [r] of the Items Selected in the IETAT	64
Table 5.3	Distribution of Items of IETAT as per CVR	66
Table 5.4	Distribution of Items of IETAT as per Henning's Guidelines of Item Difficulty	67
Table 5.5	Distribution of Items of IETAT According to Garrett's Scheme	67
Table 5.6	Distribution of Items of IETAT According to W. Summer's Scheme	68
Table 5.7	Section wise Distribution of Test Items According to their Internal Consistency Indices	69
Table 5.8	SMEs' Rating on Final version of IETAT	70
Table 5.9	Section wise Items and Time Allotted for the IETAT	71
Table 5.10	Details about the Sample of TEIs	73
Table 5.11	Details about the Sample of Pre-service Teachers	74
Table 6.1	Frequency Distribution, Mean, Median, Mode and SD of the Scores in IETAT	85
Table 6.2	Section wise Frequency Distribution of the Scores	86
Table 6.3	SE and Confidence Interval of Mean, Median and SD	87
Table 6.4	Skewness of the Distribution	89
Table 6.5	Kurtosis of the Distribution	91
Table 6.6	Smoothed Frequencies of the Distribution	93
Table 6.7	Cumulative Frequencies and Cumulative Percentage of Frequencies	97

Table No.	Title of the Table	Page No.
Table 6.8	Normal Curve Ordinates at Mean	100
Table 6.9	Normal Curve Ordinates at Mean for Section I to V of IETAT	102
Table 6.10	Chi-square Test of Normal Distribution for Whole Test	104
Table 6.11	Chi-square Test of Normal Distribution for Section I	105
Table 6.12	Chi-square Test of Normal Distribution for Section II	106
Table 6.13	Chi-square Test of Normal Distribution for Section III	107
Table 6.14	Chi-square Test of Normal Distribution for Section IV	108
Table 6.15	Chi-square Test of Normal Distribution for Section V	109
Table 6.16	Normal Curve Ordinates at Mean for IETAT	110
Table 6.17	Scattergram of Scores used in Split Half Method	113
Table 6.18	'pq' Values of 50 Test Items (n=552)	116
Table 6.19	A Specimen of 'Student-Item' Chart	118
Table 6.20	An Analysis-of-Variance Table with the Formulas for Computing the Values under Each Heading and the Actual Values under Each Heading	119
Table 6.21	Reliability Coefficient of IETAT obtained through Different Methods	121
Table 6.22	Raw Scores of the Final Test and their Corresponding Standard Scores	125
Table 6.23	Raw Criterion Scores (External Examination Marks in Inclusive Education Subject) and their Corresponding Standard Scores	126
Table 6.24	Scatter Diagram of Standard Test Scores and Standard Criterion Scores (External Examination Marks in Inclusive Education Subject)	127
Table 6.25	Raw Scores of the Final Test along with their Corresponding Standard Scores and T-Scores	130
Table 6.26	T-Score Values for the Distribution	131
Table 6.27	Percentile Norms	133
Table 6.28	Percentile Ranks	135
Table 6.29	Assigning Letter Grade	136
Table 7.1	Inter-Correlations of Five Sections, Illustrating the Condition of Simple Probability in a Correlation Matrix (n=552)	141
Table 7.2	Correlation Matrix	142
Table 7.3	Extraction of the First Centroid Factor from the Correlation Matrix	142
Table 7.4	First Factor Matrix	143
Table 7.5	First Residual Correlation Matrix	143
Table 7.6	Extraction of the Second Centroid Factor from the First Residual Correlation Matrix	145
Table 8.1	Classification of Pre-service Teachers according to Letter Grade	151

LIST OF FIGURES

Figure No.	Title of the Figure	Page No.
Figure 4.1	Age-wise Distribution of Sample Selected for Pilot Testing	46
Figure 4.2	Gender-wise Distribution of Sample Selected for Pilot Testing	46
Figure 4.3	Habitat-wise Distribution of Sample Selected for Pilot Testing	47
Figure 4.4	Caste category-wise Distribution of Sample Selected for Pilot Testing	47
Figure 4.5	Educational Stream-wise Distribution of Sample Selected for Pilot Testing	48
Figure 4.6	Educational Level-wise Distribution of Sample Selected for Pilot Testing	48
Figure 4.7	Teaching Experience-wise Distribution of Sample Selected for Pilot Testing	49
Figure 5.1	Age-wise Distribution of Sample Selected for the Study	75
Figure 5.2	Gender-wise Distribution of Sample Selected for the Study	75
Figure 5.3	Habitat-wise Distribution of Sample Selected for the Study	76
Figure 5.4	Caste category-wise Distribution of Sample Selected for the Study	77
Figure 5.5	Educational Stream-wise Distribution of Sample Selected for the Study	77
Figure 5.6	Educational Level-wise Distribution of Sample Selected for the Study	78
Figure 5.7	Teaching Experience-wise Distribution of Sample Selected for the Study	79
Figure 6.1	Frequency Polygon	92
Figure 6.2	Smoothed Frequency Polygon	94
Figure 6.3	Histogram	95
Figure 6.4	Cumulative Frequency Curve	96
Figure 6.5	Cumulative Percentage Curve	97
Figure 6.6	Superimposition of the Best Fitting Curve on the Obtained Histogram for the Whole IETAT	101
Figure 6.7	Corresponding T-Scores of Raw Scores	132
Figure 6.8	Schematic Representation of the Grade Assignment	137