

## CHAPTER V

### ADMINISTRATION OF THE FINAL IETAT

#### 5.1 INTRODUCTION

As described in the previous chapter that in the final analysis of pilot test data, 50 items were selected on the basis of internal consistency indices and the items were rearranged based on its difficulty values. All the 50 items were distributed among the five sections. The test was prepared in the form of a booklet along with a separate answer sheet. Features of final IETAT along with detailed administration procedure followed have been discussed in this chapter.

#### 5.2 THE FINAL IETAT

The final IETAT was prepared on the basis of an analysis of the results of pilot testing. The final test has also continued to be in five sections. As against 15, 14, 13, 15 and 13 test items (making the total 70) of the five sections respectively of the pilot form, 10 items in each section (totally 50) were retained in the final IETAT (refer to APPENDIX XI). The features of the final IETAT is given below:

**Table 5.1**  
**Section wise Items in Final IETAT**

Section		Item Nos. in IETAT	No. of Items	% of Items
I	Knowledge about Inclusive Education	1-10	10	20
II	Perceived Ability to Identify Disabilities	11-20	10	20
III	Attitude towards Teaching CwSN	21-30	10	20
IV	Perceived Ability to Adapt Inclusive Teaching Methods	31-40	10	20
V	Skills to Manage Inclusive Classroom	41-50	10	20
<b>Total</b>		<b>50 items</b>		<b>100</b>

### 5.2.1 Validity of Items selected in the Final Version of IETAT

For the final version of the IETAT, items with high content validity CVR calculated from the SMEs rating on each item, were included in the test. Also, items with internal consistency index (r) .20 or more than that were selected. According to the general rule of test construction, the items in a test should have been arranged as per their difficulty values. This rule was followed in arranging the items of present test and items in each section were re-arranged as per their difficulty value (D) so the easiest items been at top and hardest items been at the bottom. Item wise CVR, difficulty value and internal consistency index (r) of final IETAT have been presented in the following table 5.2.

**Table 5.2**  
**CVR, Difficulty Value (D) and Internal Consistency Index (r) of the Items Selected**  
**ins the Final Version of IETAT**

Section	Item No.	CVR	D	r
Section I	1	0.88	86.7	.51
	2	0.25	73.4	.34
	3	0.5	73.4	.70
	4	0.38	68.4	.42
	5	0.63	61.7	.26
	6	0.5	56.9	.53
	7	0.63	46.7	.29
	8	0.75	33.4	.61
	9	0.25	33.4	.61
	10	0.75	20	.42
Section II	11	0.88	61.7	.28
	12	0.25	61.7	.25
	13	0.38	60	.54
	14	0.75	53.4	.62
	15	0.5	46.7	.53
	16	0.75	46.7	.53
	17	0.88	40	.40

Section	Item No.	CVR	D	r
Section II	18	1	20	.42
	19	0.63	20	.42
	20	0.25	13.3	.29
Section III	21	0.88	86.7	.50
	22	0.75	86.7	.54
	23	0.5	73.4	.32
	24	0.5	60	.82
	25	0.75	40	.38
	26	0.88	40	.71
	27	1	40	.38
	28	0.63	13.4	.29
	29	0.88	13.4	.29
	30	0.5	13.4	.29
Section IV	31	0.88	73.4	.32
	32	1	60	.80
	33	0.63	53.3	.41
	34	0.5	53.4	.60
	35	1	40	.38
	36	0.63	33.4	.33
	37	0.75	26.7	.51
	38	0.38	26.7	.51
	39	0.63	20	.42
	40	0.63	13.4	.29
Section V	41	0.5	93.4	.38
	42	1	73.4	.31
	43	0.38	66.7	.45
	44	0.88	60	.29
	45	0.25	40	.69
	46	0.88	33.4	.29

Section	Item No.	CVR	D	r
	47	0.25	33.3	.29
	48	0.63	20	.42
	49	0.63	20	.42
	50	0.5	13.4	.29

Table 5.2 shows the final version of IETAT comprised a total of 50 items with high CVR ranging from 0.25 to 1. The range of the difficulty values of the items selected was between 93.4 and 13.4 whereas the validity indices range was between .26 and .82.

The data has been further interpreted comprehensively and grouped on the basis of CVR, difficulty value and discrimination power of items. The distribution of items of final IETAT as per their CVR has been given in the following table 5.3.

**Table 5.3**  
**Distribution of Items of IETAT as per CVR**

CVR	Items	Total
1	18, 27, 32, 35, 42	05
.50 – .99	1, 3, 5, 6, 7, 8, 10, 11, 14, 15, 16, 17, 19, 21, 22, 23, 24, 25, 26, 28, 29, 30, 31, 33, 36, 37, 39, 40, 41, 44, 46, 48, 49, 50	35
.25 - .49	2, 4, 9, 12, 13, 20, 38, 43, 45, 47	10
.01 - .24	NIL	00
0 and less than that	NIL	00
<b>Total</b>		<b>50</b>

Table 5.3 shows that all 50 items of the final IETAT were having CVR .25 and more than that. Majority of the items were having the CVR between .50 and .99.

The grouped data according to the scheme of Henning, Garrett and Summer have been presented in the following tables 5.3 to 5.5.

**Table 5.3****Distribution of Items of IETAT as per Henning's Guidelines of Difficulty Level**

<b>Difficulty Level</b>	<b>Description</b>	<b>Items</b>	<b>Total</b>
$\leq .33$	High Difficult	8, 9, 10, 18, 19, 20, 28, 29, 30, 36, 37, 38, 39, 40, 46, 47, 48, 49, 50	19
.34 to .66	Moderate Difficult	5, 6, 7, 11, 12, 13, 14, 15, 16, 17, 24, 25, 26, 27, 32, 33, 34, 35, 44, 45	20
$\geq .67$	Low Difficulty/Easy	1, 2, 3, 4, 21, 22, 23, 31, 41, 42, 43	11
<b>Total</b>			<b>70</b>

Table 5.3 shows that out of 50 items, 11 were easy, 20 were moderate difficult and 19 were difficult items.

**Table 5.4****Distribution of Items of Final IETAT according to Garrett Scheme**

<b>Difficulty Indices</b>	<b>Frequency of Items</b>	<b>Garrett's Distribution</b>			
		<b>Expected Frequency</b>	<b>Percentage</b>	<b>Obtained Frequency</b>	<b>Percentage</b>
1-5	0	13	25%	12	24%
6-10	0				
11-15	2				
16-20	1				
21-25	5				
26-30	2	25	50%	34	68%
31-35	3				
36-40	3				
41-45	4				
46-50	3				
51-55	3				
56-60	1				
61-65	4				
66-70	4				
71-75	5				
76-80	3	12	25%	4	8%
81-85	2				
86-90	3				
91-95	1				
96-100	1				
<b>Total</b>	<b>50</b>	<b>50</b>	<b>100%</b>	<b>50</b>	<b>100%</b>

From the table 5.4 it can be observed that as per Garrett scheme of distribution of items, there should be 13 (25 percent), 25 (50 percent) and 12 (25 percent) items in the difficulty value range 1 to 25, 26 to 75 and 76 to 100 respectively. In fact, out of the total 50 items of the final IETAT 12, 34 and 4 items making 24, 68 and 8 percent approximately in the range of 1 to 25, 26 to 75 and 76 to 100 in respective order. Thus the distribution of items of presente test deviate from the Garrett's scheme of distribution.

**Table 5.5**  
**Distribution of Items of Final IETAT according to W. Summer's Scheme**

Difficulty Indices	Frequency of Items	W Summer's Distribution			
		Expected Frequency	Percentage	Obtained Frequency	Percentage
1-5	0	10	20%	23	46%
6-10	0				
11-15	2				
16-20	1				
21-25	5				
26-30	2				
31-35	3				
36-40	3	30	60%	13	26%
41-45	4				
46-50	3				
51-55	3				
56-60	1				
61-65	4	10	20%	14	28%
66-70	4				
71-75	5				
76-80	3				
81-85	2				
86-90	3				
91-95	1				
96-100	1				
<b>Total</b>	<b>50</b>	<b>50</b>	<b>100%</b>	<b>50</b>	<b>100%</b>

From the table 5.5 it can be observed that as per the Summer scheme of distribution of items, there should be 20, 60 and 20 percent of items in the difficulty value range 1 to 40, 41 to 60 and 61 to 100 respectively. This means that out of the total 50 items of the final IETAT 10, 30 and 10 items respectively should be of 1 to 40, 41 to 60 and 61 to

100 difficulty values. There have been 23 (46 percent), 13 (26 percent) and 14 (28 percent) items as against the Summer scheme of 10, 30 and 10 items in the difficulty values of 1 to 40, 41 to 60 and 61 to 100 respectively. This shows glaring deviation from the scheme of Summer.

Internal consistency index formed the base of selection of items for the final version of IETAT. The following table 5.6 shows the section wise internal consistency index of items selected for the final version of IETAT.

**Table 5.6**  
**Section wise Distribution of IETAT Items According to their Internal Consistency Index**

Internal Consistency Index	Number of Items					Total	Percentage
	Section						
	I	II	III	IV	V		
.81 to 1	--	--	01	--	--	01	02
.71 to .80	--	--	01	01	--	02	04
.61 to .70	03	01	--	--	01	05	10
.51 to .60	02	03	01	03	--	09	18
.41 to .50	02	02	01	02	03	10	20
.31 to .40	01	01	03	03	02	10	20
.21 to .30	02	03	03	01	04	13	26
Total	10	10	10	10	10	50	100

From the table 5.6, it can be seen that one item in section III was found with a highest internal consistency index (.82) whereas 16 items were found with internal consistency index more than .51. A total of 33 items were found in the range of .21 to .50. Maximum items were in the range of .21 to .30 (13 items).

Before the administration of final version of IETAT, the researcher had consulted 16 SMEs for their judgment on the final version of the test. A five scaled ranting scale

(refer to Appendix IX) was prepared in terms to know SMEs' view on the final version of IETAT. The SMEs were asked to rate the final version of IETAT based on the components listed. The SMEs' ratings on the final version of IETAT are summarized below.

**Table 5.7**  
**SMEs' Rating on Final Version of IETAT**

<b>Sr. No.</b>	<b>Component</b>	<b>O (5)</b>	<b>VG (4)</b>	<b>G (3)</b>	<b>IN (2)</b>	<b>US (1)</b>
1	Instruction provided for whole test	1 (6.6)	6 (40)	8 (53.3)	0	0
2	Items covered for receiving general information about respondents	1 (6.6)	10 (66.7)	4 (26.7)	0	0
3	Componentets decided for testing inclusive education teaching aptitude	2 (13.3)	9 (60)	4 (26.7)	0	0
4	Items framed under each component	0	5 (33.3)	9 (60)	1 (6.6)	0
5	Structuring of items	1 (6.6)	3 (20)	10 (62.5)	1 (6.6)	0
6	Relevance of the items with the components	0	6 (40)	8 (53.3)	1 (6.6)	0
7	Suitability of the alternatives given with the items	1 (6.6)	7 (46.7)	6 (40)	1 (6.6)	0
8	Language used in the test	1 (6.6)	5 (33.3)	8 (53.3)	1 (6.6)	0
9	Translation of items into Gujarati	2 (13.3)	6 (40)	7 (46.7)	0	0
10	Setting of items and pages	0	6 (40)	8 (53.3)	1 (6.6)	0
11	Length of test	8 (53.3)	5 (33.3)	2 (13.3)	0	0
12	Ease of adminitration on B.Ed.-First Year pre-service teachers	0	6 (40)	8 (53.3)	0	1 (6.6)
13	Overall appearance	1 (6.6)	5 (33.3)	8 (53.3)	1 (6.6)	0

From the table 5.7, it can be observed that overall the final version of the IETAT was found very good in almost all the components. 53 percent of the SMEs rated the length of the test as outstanding whereas 13.3 percent each of the SMEs rated the component of instructions for test and Gujarati translation of items as outstanding. 6.6 percent of the



SMEs rated outstanding to the components of items for general information, structuring of items, five components decided for aptitude testing, suitability of options given, language used and overall appearance respectively. Most of the SMEs (more than 80 percent) rated either very good or good to the components of instructions for the test, items for general information, structuring of items, five components decided for aptitude testing, translation of items into Gujarati, ease of administration on B.Ed. students and overall appearance of the test.

**Table 5.8**  
**Selection wise Items and Time Allotted for the Final IETAT**

Section		Items in Final Test		Time Allotted
		No. of Items	% of Items	
I	Knowledge about Inclusive Education	10	20	05 minutes
II	Ability to Identify Disabilities	10	20	05 minutes
III	Attitude towards Teaching Teach CwSN	10	20	05 minutes
IV	Ability to Adapt Inclusive Teaching Methods	10	20	05 minutes
V	Skills to Manage Inclusive Classroom	10	20	05 minutes
<b>Total</b>		<b>50</b>	<b>100</b>	<b>25 minutes</b>

The table 5.8 indicates that section wise 10 items have been selected in the final IETAT and thus a total of 50 items have been covered under the final IETAT. Further 5 minutes time allotted for responding to each section and a total of 25 minutes (excluding the time for reading instruction and filling general information) for responding to entire IETAT.

The final draft of the IETAT was prepared in a test booklet containing 50 items in 5 sections. On the front page of the test booklet, instructions were given to the testis with regard to the answering of test items. The sampled pre-service teachers were given separate answer sheets in terms to enable them to record their answers.

### 5.2.2 The Answer Sheet

The answer sheet was given in a tabular form. At the top of the answer sheet, instructions were given regarding recording of answers in a sheet. The answer sheet table was prepared section wise with four alternatives against each item. At the bottom of the table, section wise raw was given for counting section wise total score along with a separate raw for total score in the test. For detailed information about answer sheet, refer to APPENDIX XIII.

On the back side of the answer sheet, general information like name of college/institute, the name of the university, age, gender, habitat, caste category, the stream of study, educational qualification and teaching experience (if any) was given to supply the necessary information about the respondents. For general information sheet, refer to APPENDIX XII.

### 5.2.3 Sample Selection

Various techniques have been devised for obtaining a sample which can be representative of its population and for this the unbiased and adequate sample is required. As the population was large and it was not feasible to collect data from whole the population, randomization was used to arrive at an adequate number of the sample where every pre-service teacher has the same chance of being chosen for the sample and the selection of one pre-service teacher in no way influence the choice of another.

There were a total of 59 universities of Gujarat during the academic year 2016-17. Out of 59 universities, 32 universities were state universities, 16 were private, 2 were deemed and 1 was a central university. The remaining 8 universities were Institutes of National Importance. The teacher education programme [B.Ed.] was provided by 18 universities, out of which, 3 universities were omitted from the sample as Shree Somnath Sanskrit University, Veraval, specially prepares Sanskrit subject teachers, whereas, Children University, Gandhinagar and Indian Institute of Teacher Education, Gandhinagar, had no 2 year B.Ed. program. Out of remaining 14 universities, 10 were state universities, 4 were private universities and one was deemed university where regular 2-year B.Ed. course

running were constituted as a sample for the present study. All the 14 universities were contacted for granting data collection, out of which 4 state universities and 3 private universities did not grant permission for data collection due to some reasons. Thus the final sample size of universities was restricted to the eight universities viz. 6 state universities, 1 private and 1 deemed university.

374 TEIs were running in the selected eight universities of Gujarat. Except Gujarat Vidyapith and The M. S. University of Baroda, B.Ed. course was running in the affiliated colleges in all other six universities. Two TEIs per universities have been selected randomly by using lottery method. Thus a total of 14 TEIs were selected as a sample. But, the investigator could not collect data from 1 self-finance TEI of Guru Govindsinh University, Godhara, due to the commencement of the final examination. Thus the final sample size of TEIs was restricted to 13 TEIs for the present study. The details about the universities and TEIs selected are given in the following table 5.9.

**Table 5.9**  
**Details about the Sample of TEIs**

Sr. No.	Name of University	Total No. of TEIs			No. of TEIs Selected			Total No. of TEIs Selected
		Govt.	GA	SF	Govt.	GA	SF	
1	Bhavnagar University	00	01	08	00	00	00	00
2	Gujarat University	01	14	95	00	01	01	02
3	Gujarat Vidyapith	01	00	00	01	00	00	01
4	Guru Gobindsinh University	03	01	36	00	01	00	01
5	Hemchanracharya North Gujarat University	01	06	72	00	01	01	02
6	Kadi Sarva Vishwavidyalaya	00	00	03	00	00	02	02
7	KSKV Kutch University	00	01	07	00	00	00	00
8	Sardar Patel University	00	03	08	00	01	01	02
9	Saurashtra University	00	10	75	00	00	00	00
10	South Gujarat University	02	04	21	00	01	01	02
11	The M. S. University of Baroda	01	00	00	01	00	00	01
Total		09	40	325	02	05	06	13
Grand Total		374			13			

For the sample of pre-service teachers, all the pre-service teachers studying in the B.Ed.-I [First Year] during the academic year 2016-17 in the 13 TEIs were selected purposively as a sample of pre-service teachers. There were a total of 750 pre-service teachers admitted in the selected 13 TEIs. But during the time of data collection, 552 pre-service teachers were present. Thus, the final sample size of the pre-service teachers restricted to 552. The details about the TEIs wise sample of pre-service teachers are given in the following table 5.10.

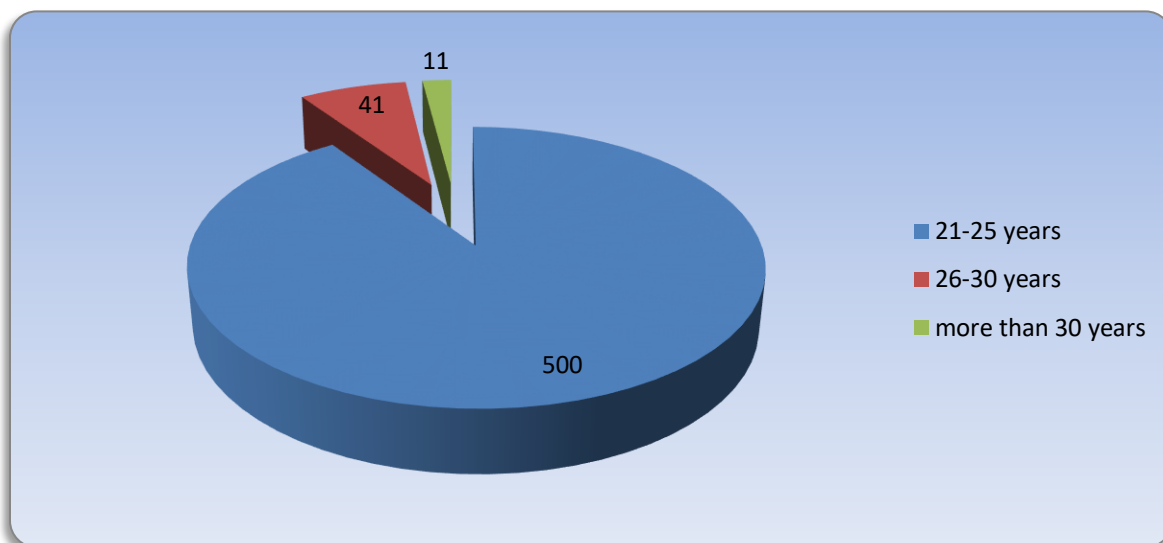
**Table 5.10**  
**Details about the Sample of Pre-service Teachers**

Sr. No.	Name of University	No. of Pre-service Teachers Selected				Total Sample Size			
		Govt.	GA	SF	Total	Govt.	GA	SF	Total
1	Gujarat University	00	50	50	100	00	19	50	69
2	Gujarat Vidyapith	50	00	00	50	47	00	00	47
3	Guru Gobindsinh University	00	50	50	100	00	33	00	33
4	Hemchanracharya North Gujarat University	00	50	50	100	00	49	44	93
5	Kadi Sarva Vishwavidyalaya	00	00	100	100	00	00	93	93
6	Sardar Patel University	00	50	50	100	00	36	41	77
7	South Gujarat University	00	50	50	100	00	42	40	82
8	The M. S. University of Baroda	100	00	00	100	58	00	00	58
<b>Total</b>		<b>150</b>	<b>250</b>	<b>350</b>	<b>750</b>	<b>105</b>	<b>179</b>	<b>268</b>	<b>552</b>

#### **5.2.3.1 Characteristics of Sample**

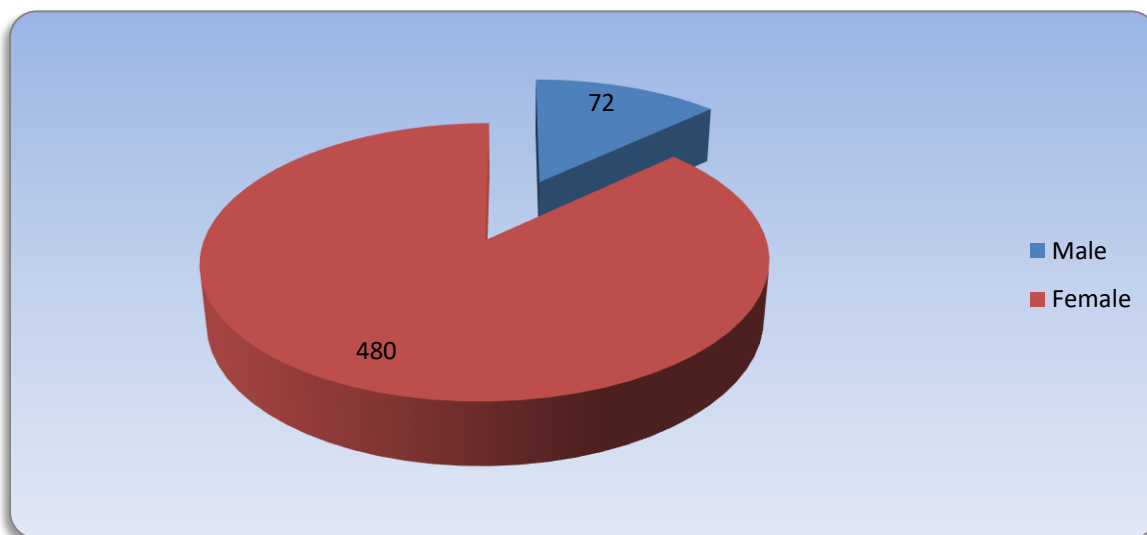
The sample for the present study was 552 pre-service teachers and their important characteristics like age, gender, habitat, caste category, educational level, education stream and teaching experience are considered and presented in the following graph 5.1 to 5.7.

**Figure 5.1**  
**Age-wise Distribution of Sample Selected for the Study**



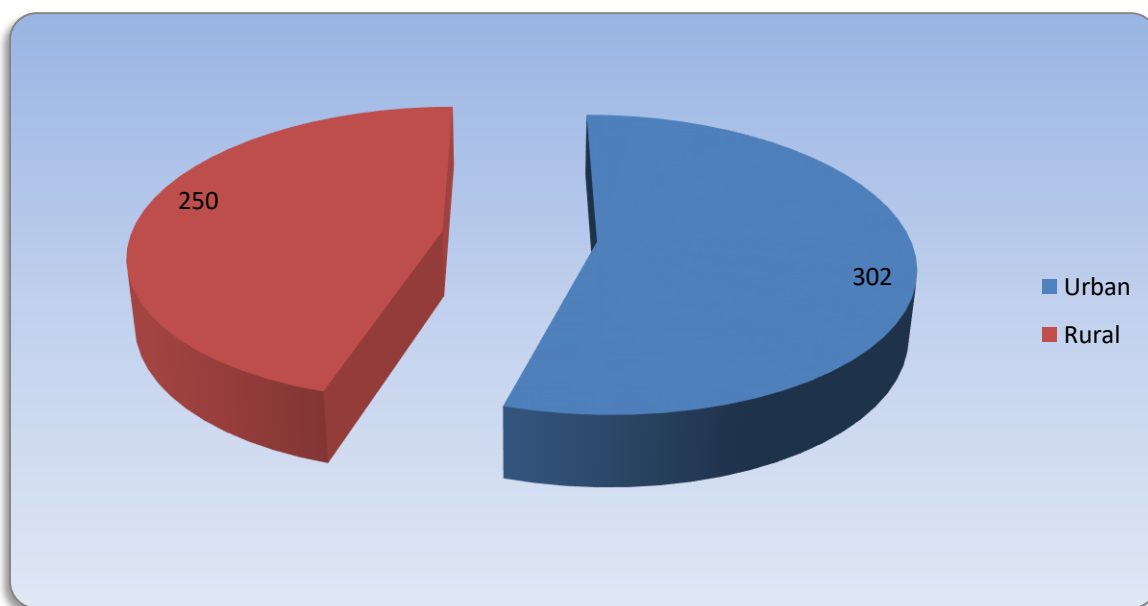
From the figure 5.1, it can be observed that out of 552 (100 percent) pre-service teachers selected for the study, most of them i.e. 500 (90.57 percent) were of 21 to 25 years age group whereas remaining 41 (7.43 percent) and 11 (2 percent) were of 26 to 30 years and more than 30 years age group respectively.

**Figure 5.2**  
**Gender-wise Distribution of Sample Selected for the Study**



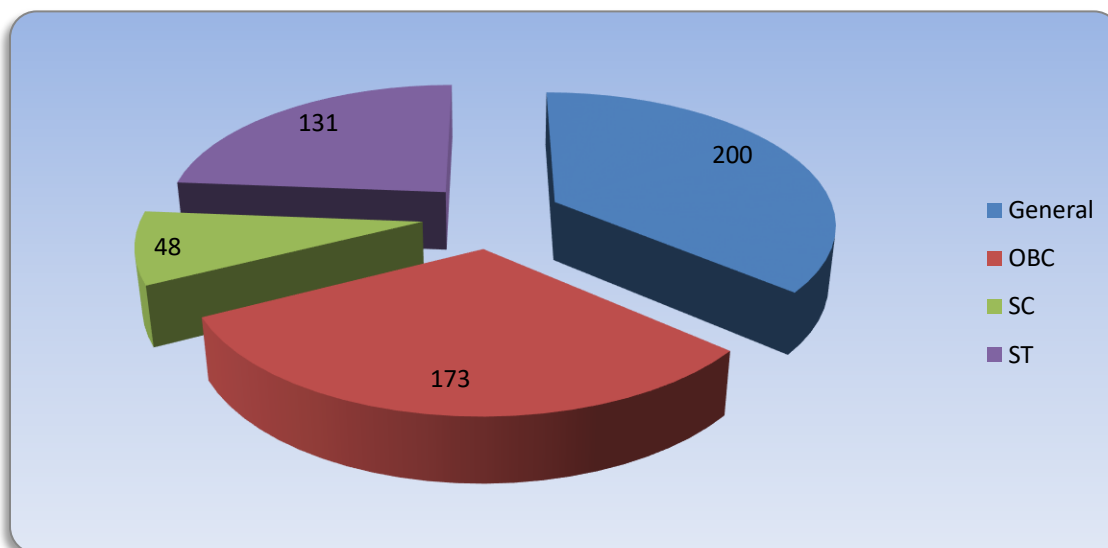
From the figure 5.2, it can be seen that out of 552 (100 percent) pre-service teachers selected for the study, most of them i.e. 33 (86.96 percent) were female whereas remaining 72 (13.04 percent) were male.

**Figure 5.3**  
**Habitat-wise Distribution of Sample Selected for the Study**



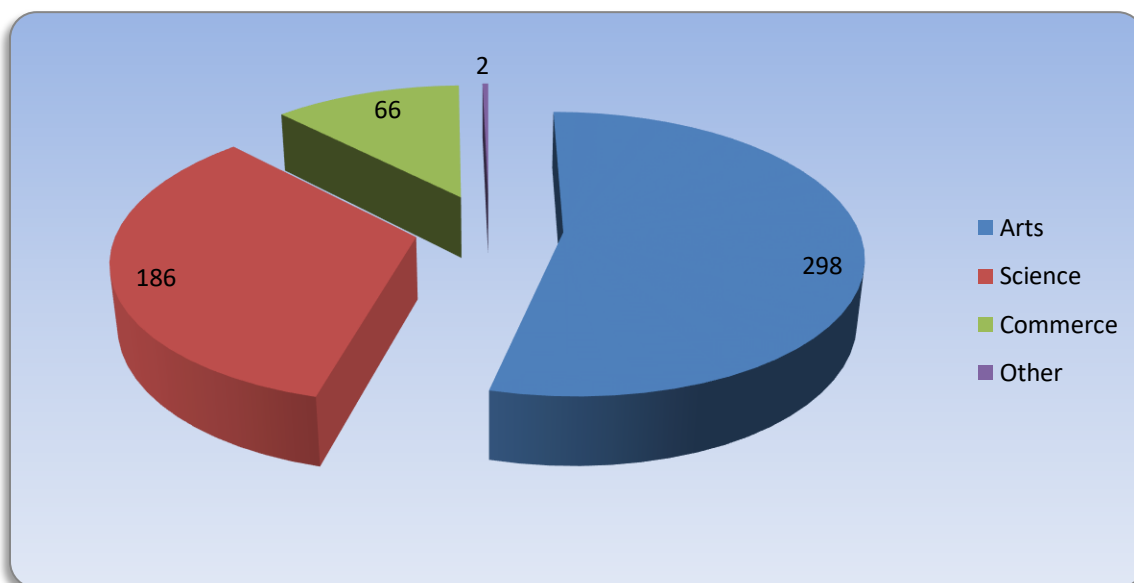
From the figure 5.3, it can be observed that out of 38 (100 percent) pre-service teachers selected for the study, more than half i.e. 302 (54.71 percent) were from urban area whereas remaining 250 (45.29 percent) were from rural area.

**Figure 5.4**  
**Caste Category-wise Distribution of Sample Selected for the Study**



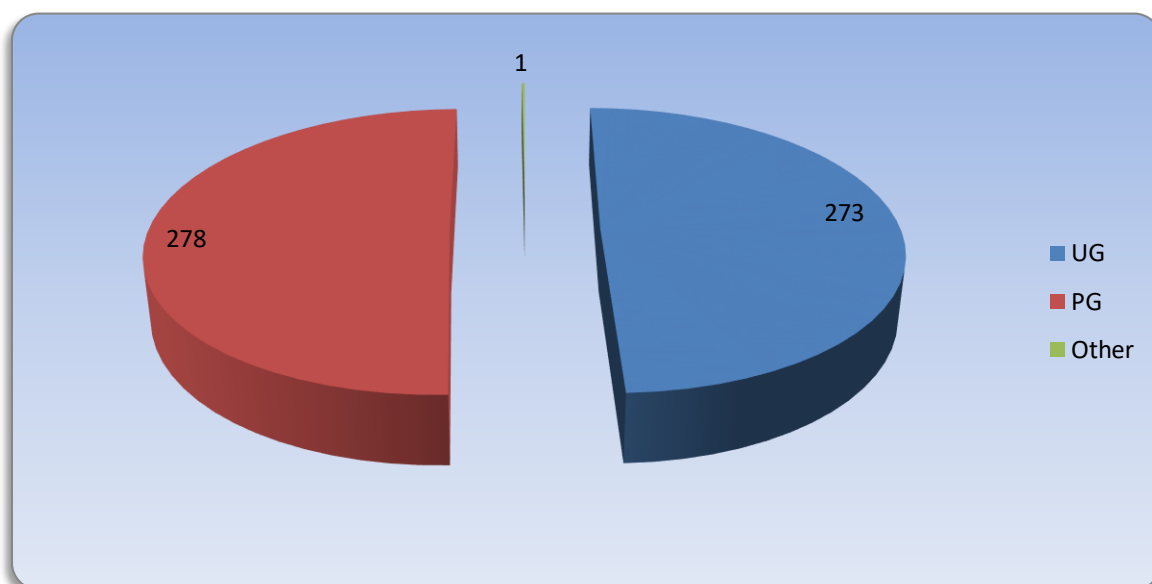
From the figure 6.4, it can be seen that out of 552 (100 percent) pre-service teachers selected for the study, 200 (36.23 percent) were from general caste whereas 173 (31.34 percent) were from other backward class. The remaining 131 (23.73 percent) and 48 (8.70 percent) were from ST and SC class respectively.

**Figure 5.5**  
**Educational Stream-wise Distribution of Sample Selected for the Study**



From the figure 6.5, it can be observed that out of 552 (100 percent) pre-service teachers selected for the study, 198 (35.87 percent) were from Arts stream whereas 186 (33.70 percent) and 66 (11.96 percent) were from Science and Commerce stream respectively. The remaining 2 (0.36 percent) were from other stream such as Engineering, and Business Administration.

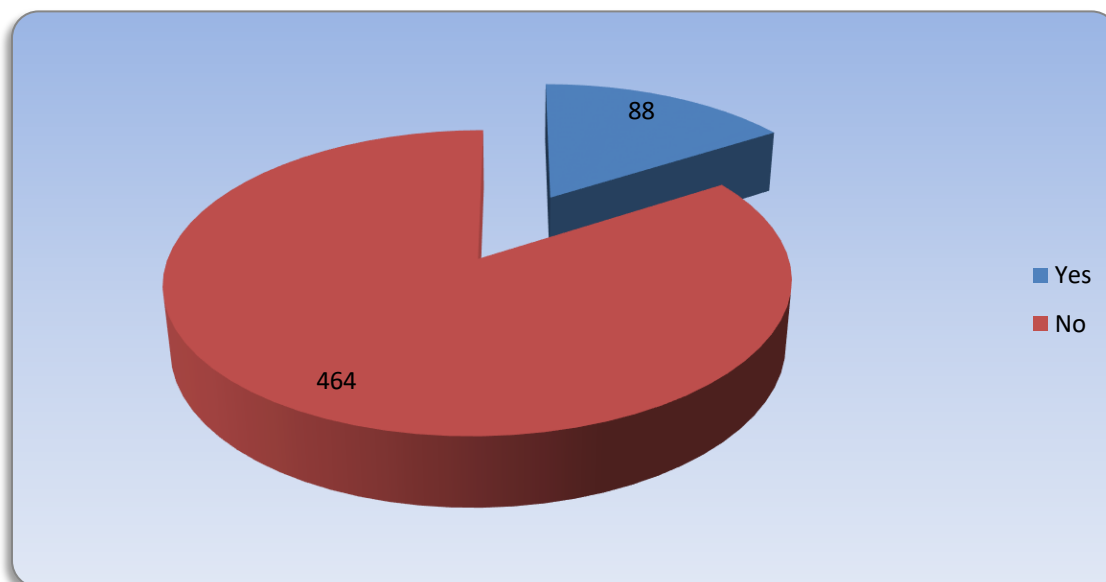
**Figure 5.6**  
**Educational Level-wise Distribution of Sample Selected for the Study**



From the figure 5.6, it can be seen that out of 552 (100 percent) pre-service teachers selected for the study, 273 (49.45 percent) had completed their graduation before joining B.Ed. whereas 278 (50.36 percent) had completed their post-graduation before joining B.Ed. Only 1 (0.18 percent) pre-service teacher had completed her M.Phil. before joining before joining B.Ed.



**Figure 5.7**  
**Teaching Experience-wise Distribution of Sample Selected for the Study**



From the figure 5.7, it can be observed that out of 552 (100 percent) pre-service teachers selected for the study, most of them i.e. 464 (84.06 percent) were not having teaching experience prior to join B.Ed. course whereas remaining 88 (15.94 percent) were having teaching experience prior to join B.Ed. course.

### 5.3 ADMINISTRATION OF IETAT

Before administration of final version of IETAT, the following administration errors enumerated by Traxler (1955) were taken into consideration.

- (i) Incorrect timing of tests that involve a time limit
- (ii) Lack of clarity in the directions to the respondents.
- (iii) Failure to make clear to respondents what they are expected to do about guessing.
- (iv) Variation in the physical conditions under which the test is administered.
- (v) Too little or too much stress on motivation.
- (vi) Failure to control opportunities for chance or purposeful copying.

As regards the first three types of errors, utmost care was taken during the construction of test so there was no chance left for such errors. As is already mentioned earlier, the

investigator had administered the test under his direct supervision. As far as possible, the last three types of errors were controlled so as to reduce them to the minimum. Thus the final IETAT was administered personally by the investigator on a sample of 552 pre-service teachers drawn from 7 Grant-in-Aid TEIs and 6 Private TEIs of 8 universities of Gujarat. The administration of IETAT was done by the investigator himself during the period of 23<sup>rd</sup> March 2017 to 29<sup>th</sup> April 2017 (refer to APPENDIX X).

### **5.3.1 Procedure Followed for Administration of IETAT**

- ❑ At the outset when all the pre-service teachers were seated comfortably, the answer sheets were distributed among them. They are asked to fill the general information asked backside of the answer sheet. The pre-service teachers were given three minutes for this purpose.
- ❑ Before distributing the test booklets, the purpose of the test was made clear to them. The test booklets were then distributed among them by instructing them to go through the instructions given on the cover page of the booklet carefully. Two minutes time was given for them to enable to read all the instructions. The tester then gave the necessary additional instructions orally.
- ❑ After clearing the doubts (if any) expressed by the pre-service teachers with regard to the answering of the test items, the teachers were then asked to open the test booklet and start answering the test items. It was made clear to them at the beginning itself that they have to answer as per the given example and the directions provided on the cover page of the test booklet.
- ❑ Clear instructions were also given not to answer either by asking others or by seeing in others answer sheet.
- ❑ Finally, the pre-service teachers have been instructed to return the answer sheets and the test booklets to the tester after they finish answering the test items.

### **5.3.2 Time Limit**

The time allotted for answering the test items of IETAT was 25 minutes excluding 5 minutes for writing general information and reading instructions. Thus the total time given was 30 minutes for IETAT. The time limit was followed during the entire phase of

data collection from all the TEIs and almost all the pre-service teachers answered the test items within the prescribed time without any difficulty. The prescribed time of 30 minutes was arrived at, after taking into account the experience of the pilot test and carefully calculating the time required by the pre-service teachers to answer the test items.

### **5.3.3 Physical Setup**

It is necessary to give special attention in obtaining good accommodation, proper seating arrangement, adequate lighting, ventilation, and freedom from distractions, an effort was made to fulfill all the above factors as far as possible. As pointed out earlier, testing was done in the morning session only to avoid vitiating effects of fatigue on the testis' performance.

### **5.3.4 Mental Setup**

For the successful psychological testing, a favorable mental setup of the testis is a necessity. The most desirable motivating condition is that which enable the largest number of individuals to give the best performance without any undue emotional stress. The pre-service teachers were clarified that their performance in this test will not affect their academic career and the purpose of the test is only to measure their aptitude for teaching in inclusive education. An assurance was also given about the confidentiality of information provided by them. Most of the pre-service teachers evinced interest in taking this type of aptitude test. The novelty of the test also helped to a considerable extent in motivating them.


### **5.3.5 Scoring**

The scoring procedure adopted in the pilot test was followed in the final test as no change was needed in the scoring pattern. Thus the scoring pattern is a standardized one for the present IETAT.

Investigator himself assessed all 552 answer sheets so there was no chance for scoring errors. One mark was assigned to every correct answer of the item and no mark assigned

to the wrong answer. The scoring was done without using any formula for correction of chance.

### **5.3.6 Key for Manual Scoring**

A key was prepared for the whole test. The pre-service teachers were asked to encircle  to the alternatives selected as correct. Slots on the answer sheet are punched in places where the correct responses are given as per the key (refer to APPENDIX XIV). The responses of the pre-service teachers given in the form of encircling on each of the items were marked correct as per the key could be counted easily through the slotted holes. This method saved a lot of time and helped in quickening the process of scoring.

### **5.3.7 Compilation of Data**

After valuing all the 552 answer sheets, the scores obtained by the pre-service teachers in different sections of the test were tabulated section wise and entered in a Statistical Package for Social Sciences [SPSS] for the purpose of statistical analysis of the collected data.