

CHAPTER - IV

Presentation, Analysis & Interpretation



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DATA PRESENTATION, ANALYSIS AND INTERPRETATIONS

4.1 Introduction :

Statistics is a body of mathematical techniques or processes for gathering, organizing, analyzing and interpreting numerical data. Since research yields such quantitative data, statistics is a basic tool of measurement, evaluation and research. The word statistics is sometimes used to describe the numerical data that are gathered. Statistical data describe group behaviour or group characteristics abstracted from a number of individual observations, which are combined to make generalizations possible. The research worker who uses statistics is concerned with more than the manipulation of data. Statistical method goes to the fundamental purposes of description and analysis. By statistics we can analyze and interpret the data and can draw conclusion.

Interpretation of data refers to that important part of the investigator, which is associated with the drawing of inference from the collected facts after an analytic study. It is extremely useful and important part of the study because it makes possible the use of collected data. Statistical facts by themselves have no utility. It is the interpretation that makes it possible for us to utilize collected data in various fields of activity. The usefulness of the collected data lies in its proper interpretation. It provides certain conclusion about the problem under study.

Keeping the objectives of the study in view the data was collected and interpreted one by one.

4.2 Data Presentation, Analysis and Interpretations :

This part of the study deals with the analysis, presentation and interpretation of data. Since the study's main objective is to find out the gender bias in classroom practices in terms of teacher's behaviour, curriculum transaction and classroom environment. Qualitative analysis of data is done by the investigator for deriving conclusions.

The investigator collected data from the questionnaires and through the observations of lessons. The questionnaire given to the students having 25 questions is consisting of the questions related with teachers' behaviour, curriculum transaction and classroom environment. The obtained data is presented in tabular form below and is interpreted accordingly.

The data shown in the table given below are collected from the questionnaires given to the students in order to get their views in terms of teachers' behaviour.

4.2.1 Questionnaire given to the students :

Students' views towards teachers' behaviour.

Item No.	Yes		No		Remarks
	Number	Percentage	Number	Percentage	
6	109	55%	81	41%	Gender Bias
7	90	45%	110	55%	Gender Friendly
8	130	65%	70	35%	Gender Bias
10	43	22%	157	79%	Gender Friendly
11	120	60%	80	40%	Gender Friendly
14	135	68%	65	33%	Gender Friendly
17	65	33%	135	68%	Gender Friendly
19	35	18%	165	83%	Gender Friendly
20	67	34%	133	67%	Gender Friendly
23	44	22%	156	78%	Gender Friendly
25	93	47%	107	54%	Gender Friendly

Table - 4

The data in table-4 regarding the teachers' behaviour reveals that the disagreement of item No. 7, 17, 19, 20, 23 and 25 reflect gender friendly behaviour of the teachers in the class. The agreement towards the statements 10, 11 and 14 also reflect the gender friendly behaviour. But the agreement for the statements 6 and 8 reflect gender bias behaviour of the teacher.

Interpretation :

The table 4 reveals that for the statement No. 6, 109 (55%) students out of 200 agree that teachers write sentences using more boys' names than girls'. 81 (41%) students disagree and consequently the responses show the biased attitude of the teacher.

90 (45%) students out of 200 agree that the teachers display affection and displeasure in different ways towards boys and girls' (statement-7). And 110 (55%) students disagree with the statement, which shows gender friendly behaviour of the teacher.

For statement-8, 130 (65%) students agree that the teachers discipline or punish boys and girls evenly. While 70 (35%) students are disagree with the view. And this shows the gender bias.

157 (79%) students disagree that teachers speak with gender inhibition (statement No. 10) and 43 (22%) students disagree with it. It's a gender friendly attitude of the teachers.

120 (60%) students out of 200 agree with the statement no. 11 that teachers' eye contact is equally shared towards girls and boys both. While 80 (40%) students disagree with the notion, and therefore it shows gender friendly behaviour of the teachers.

Similarly item No. 14 reflects the gender friendly behaviour of the teachers because 135 (68%) students are agree that teachers give reinforcement equally to boys and girls whereas 65 (33%) students disagree with it.

Regarding the use of derogatory remarks more for girls than boys (statement no. 17) 135 (68%) students disagree and 65 (33%) students agree. Again it's a gender friendly behaviour of the teachers.

But for the statement No. 19, 165 (83%) students out of 200 disagree that teacher appreciate girls more than boys after completion of work. While 35 (18%) students agree with the statement. It means teachers are behaving in a gender friendly manner.

133 (67%) students are disagree with the statement No. 20 that teachers have different behaviour expectations from girls. Only 67 (34%) students are disagree. So teachers' gender friendly behaviour is reflected.

As far as the statement 23 is concerned students' response is obvious. 156 (78%) students say that their teachers do not prefer girl students for sweeping classroom, while 44 (22%) students are agree. This is a gender friendly behaviour of the teachers.

For late coming in the class, do your teachers behave differently for girls and boys (statement 25), for this statement 107 (54%) students show their disagreement and 93 (47%) show agreement. It reflects the gender friendly behaviour of the teachers.

Table No. 5 reveals the students' responses towards the statements pertaining to the curriculum transaction.

Curriculum Transaction

Item No.	Yes		No		Remarks
	Number	Percentage	Number	Percentage	
4	23	12%	187	94%	Gender Friendly
5	23	12%	177	89%	Gender Friendly
9	103	52%	97	49%	Gender Neutral
12	140	70%	60	30%	Gender Friendly
13	125	63%	75	38%	Gender Friendly
16	150	75%	50	25%	Gender Friendly
18	155	78%	45	23%	Gender Friendly
24	151	76%	49	25%	Gender Friendly

Table - 5

Eight statements (4, 5, 9, 12, 13, 16, 18 and 24) are included in the scale related to the curriculum transaction. Out of which statement No. 4, 5, 9, 12, 13, 16, 18 and 24 (7 statements) reflect gender friendliness. Whereas the statement No. 9 reflects gender neutral attitude of the students towards the curriculum transaction.

Interpretation :

Table -5 reveals that 187 (94%) students disagree with the statement-4 that teachers plan different activities for boys and girls. 23 (12%) students say 'yes' to the statement, which shows gender friendliness.

It is clear from the table that 177 (89%) students say 'No' to the statement - 5 that teachers plan different roles for boys and girls. 23 (12%) students say 'Yes' to the statement. This shows gender friendliness towards curriculum transaction.

Regarding the statement No. 9, 103 (52%) students out of 200 are agree and 97 (49%) students are disagree that teachers distribute questions to boys and girls evenly. This is gender neutral behaviour of the students towards curriculum transaction.

140 (70%) students say that their teachers give equal opportunities to boys and girls for answering questions, whereas 60 (30%) students deny with it. And this is gender friendliness.

Statement No. 13 also reflects the gender friendly attitude because 125 (63%) students out of 200 are agree and 75 (38%) students are disagree with the statement.

The table also shows that 150 (75%) students are of the opinion that teaching learning material is equally accessible to boys and girls (item No. 16). 50 (25%) are disagree with the statement. This reflects gender friendliness

Similarly 155 (78%) students are agree that teachers give equal time to girls and boys to play (item No. 18). While 45 (23%) students are disagree with the statement No. 18. Gender friendliness is reflected from the statement.

Regarding encouragement to both boys and girls to read around, recite and speak on topics related to their subjects (statement No. 24), 151 (76%) students are agree and 49 (25%) students disagree, which

shows the gender friendly attitude of the students towards the curriculum transaction.

Table - 6 reveals the student's responses towards the statements pertaining to the classroom environment.

Classroom Environment

Item No.	Yes		No		Remarks
	Number	Percentage	Number	Percentage	
1	09	5%	191	96%	Gender Bias
2	55	28%	145	73%	Gender Bias
3	148	74%	52	26%	Gender Friendly
15	170	85%	30	15%	Gender Friendly
21	128	64%	72	36%	Gender Friendly
22	35	18%	165	83%	Gender Bias

Table - 6

In table 3, 6 statements (1, 2, 3, 15, 21, and 22) are included pertaining to the classroom environment. Out of which, statement No. 1, 2 and 22 reflect the biased classroom environment whereas statement No. 3, 15 and 21 show gender friendly classroom environment.

Interpretation :

The above table reveals that 191 (96%) students are agree and 09 (5%) are disagree with the statement No. 1 and it reflects the biased

environment of the class.

145 (73%) students say 'No' and 55 (28%) students say 'yes' to the statement No. 2 which indicates biased classroom environment.

Regarding the item No. 3, 148 (74%) students are agree and 52 (26%) students are disagree with the notion that focuses on the freedom for boys and girls to interact freely. This creates gender friendly atmosphere in the class.

128 (64%) students are agree and 72 (36%) disagree with the statement No. 21 which states that do the students have two monitors in the class, a boy and a girl. This also reflects the friendly atmosphere.

But gender bias atmosphere in the classroom is also reflected by the statement No. 22, to which 165 (83%) students say 'no' and 35 (18%) say 'yes'.

4.2.2 Questionnaire given to the teachers -

The data displayed in the tables given below are collected from the questionnaires given to the teachers to get their views regarding students' behaviour, curriculum transaction and classroom environment.

Teachers' views towards students' behaviour

Item No.	Agree		Neutral		Disagree		Remarks
	Number	%age	Number	%age	Number	%age	
5	21	42%	-	-	29	58%	G.B.*
8	18	36	-	-	32	64	G.F.**
11	36	72	02	04	12	24	G.F.
12	05	10	05	10	40	80	G.F.
13	04	08	03	06	43	86	G.F.
17	24	48	07	14	19	38	G.B.
18	21	42	05	10	24	48	G.N.***
19	26	52	02	04	22	44	G.F.
20	05	10	18	36	27	54	G.N.
21	24	48	-	-	26	52	G.F.
25	22	44	10	20	18	36	G.N.
26	40	80	-	-	10	20	G.F.
28	29	58	-	-	21	42	G.B.
29	23	46	02	04	25	50	G.F.
30	24	48	01	02	25	50	G.N.

* Gender Bias, ** Gender Friendliness *** Gender Neutral.

Table-7

The above table contains the views of teachers about the students' behaviour. In the table statement No. 8, 11, 12, 13, 19, 21, 26 and 29 reflect the gender friendly behaviour of the teachers with the

students, where as item No. 5, 17 and 28 show the biased behaviour of the teachers. But for the statements 18, 20 and 30 the teachers remain neutral.

Interpretation :

Table - 7 reveals that 29 (38%) teachers out of 50 express their disagreement and 21 (42%) are agree with the statement No. 5 and no teacher is neutral about it.

32 (64%) teachers are disagree, 18 (36%) are agree and no one is neutral about the statement No. 8 which indicates gender friendly attitude of the teachers.

For the statement No. 11 the percentage of disagree is 24% and agree is 36 (72%), only 2 (4%) teachers are neutral. This shows the gender friendliness.

Out of 50 teachers 40 (80%) teachers disagree, 5 (10%) teachers are agree and 5 (10%) teachers are neutral about the statement No. 12 that more doubts are raised by girls than boys in classroom. It reflects the gender friendly attitude of the teachers.

Similarly 43 (86%) teachers are disagree for the statement- 13 that generally there is a tendency to ask questions frequently to girls rather than boys, where as 4 (8%) teachers are agree and 3 (6%) are neutral about it. This shows gender friendliness of teachers.

The table reveals that 24 (48%) teachers are agree with the item no. 17 which is about giving preference to girls for sweeping classrooms. While 7 (14%) teachers are neutral and 19 (38%) teachers are disagree, which shows the gender biased behaviour of the teachers.

For bringing water to class or school (statement No. 18) is the duty of boys, 24 (48%) teachers are disagree, 24 (42%) are agree and 5 (10%) teachers are neutral. Since there is a very little difference between agree and disagree, therefore the statement reflects the gender neutral behaviour of the teachers.

Statement No.-19 , in classroom special attention should be provided to girls. 26 (52%) teachers are agree while 22 (44%) are disagree and neutral teachers are 02 (4%) only. Which shows the gender friendly behaviour of the teachers.

Gender neutral behaviour of the teachers come out from the responses they give for the statement No. 20 about planning different activities for boys and girls, because 27 (54%) teachers are disagree, 18 (36%) are neutral and 5 (10%) are agree.

No teacher is neutral for the item No. 21 and 24 (48%) teachers are agree. But 26 (52%) teachers are disagree about teachers' different behaviour expectations from girls which creates gender friendly behaviour of teachers.

As far as using derogatory remarks for boys and girls are concerned (statement No. 25) 22 (44%) teachers are agree, 10 (20%) teachers are neutral and 36 (18%) are disagree. And this reflects the neutral attitude of the teachers.

But regarding intelligence and abilities of boys and girls (statement No. 26), 40 (80%) teachers are agree, 10 (20%) are disagree and no one is neutral. So, we can say that teachers are agree with the statement that both boys and girls have same intelligence and abilities and this shows gender friendly attitude of the teachers.

The table reveals that 29 (58%) teachers want to punish or reward differently to boys and girls (statement No. 28). 24 (42%) teachers are disagree. No teacher gives neutral response. And that shows the biased behaviour of the teachers.

25 (50%) teachers are disagree, 23 (46%) teachers are agree and 2 (4%) teachers are neutral about the statement No. 29 that always boys should represent the class. This is a gender friendly attitude of the teachers.

Lastly, for the statement No. 30, 25 (50%) teachers disagree, 24 (48%) teachers agree and 01 (2%) are neutral. The statement states that a teacher should have more exchanges with the boys and girls. And therefore it reflects the neutral behaviour of the teachers.

Curriculum Transaction

Item No.	Agree		Neutral		Disagree		Remarks
	Number	%age	Number	%age	Number	%age	
2	13	26%	02	04%	35	70%	GB*
4	21	42%	02	04%	27	54%	GF**
6	25	50%	-	-	25	50%	GN***
7	40	80%	03	06%	07	14%	GF
9	25	50%	-	-	25	50%	GN
14 ₁	30	60%	17	34%	03	6%	GF
15	42	84%	-	-	08	16%	GF
22	38	76%	-	-	12	24%	GF
23	22	44%	02	04%	26	52%	GF
24	30	60%	15	30%	05	10%	GF

* Gender Bias, ** Gender Friendliness *** Gender Neutral.

Table - 8

Table - 8 reflects the teachers' responses to the statements related to curriculum transaction. 10 statements are included in the table. Out of which statement No. 2 reflects the biased attitude of the teachers towards curriculum transaction. Statement No. 6 and 9 reflect gender neutral and the rest 7 statements. (4, 7, 14, 15, 22, 23 & 24) are gender friendly.

Interpretation :

This table reveals that 35 (70%) teachers are disagree, 13 (26%) are agree and 2 (4%) are neutral with the item No. 2, which is about the homogeneous and heterogeneous groups in the classroom. So, teachers are biased at this.

For item No. 4, 21 (42%) teachers are agree, 27 (54%) are disagree and 2 (4%) are neutral. This reflect the gender friendly attitude of the teachers towards curriculum transaction.

Generally boys respond quickly than girls in replying questions. For this statement No. 6, teachers show their neutrality. 50-50% teachers show agree and disagree respectively.

For the statement No. 7, that boys and girls can be given same assignments, at this 40 (80%) teachers out of 50 are agree, 3 (6%) are neutral and 7 (14%) teachers are disagree. And this is a gender friendly attitude of the teachers.

Once again for item No. 09 teachers show their neutral attitude by responding 50-50% agree and disagree to the statement.

30 (60%) teachers are agree, 17 (34%) teachers neutral and 3 (6%) teachers are disagree with the statement No. 14, which is about boys and girls participation equally in preparing teaching learning material in classroom. The responses reflect the gender friendly attitude of the teachers.

42 (84%) teachers out of 50 are agree and 8 (16%) are disagree with the statement No. 15 that generally girls do their homework better than boys. This also reflect the gender friendly attitude of the teachers.

38 (76%) teachers say that boys get easily diverted than girls (statement No. 22) where as only 12 (24%) teachers show disagreement. And, hence it reflects the gender friendly attitude of the teachers towards curriculum transaction.

The table reveals that 26 (52%) teachers are disagree, 22 (44%) teachers are agree and 2 (4%) are neutral for the statement No. 23 which says that both boys and girls can be assigned same duties and responsibilities. It's a gender friendly attitude of the teachers.

Similarly for item No. 24, 30 (60%) teachers are agree, 15 (30%) are neutral and only 5(10%) are disagree. And, therefore, the statement reflect the friendly attitude of the teachers towards the curriculum transaction.

Classroom Environment

Item No.	Agree		Neutral		Disagree		Remarks
	Number	%age	Number	%age	Number	%age	
1	30	60	01	02	19	38	GB*
3	43	86	02	04	03	06	GB
10	16	32	-	-	34	68	GF**
16	44	88	-	-	06	12	GF
27	24	48	01	02	25	50	GN***

* Gender Bias, ** Gender Friendliness *** Gender Neutral.

Table - 9

Table - 9 is about the attitude of the teachers towards the classroom environment. It comprises only 05 statements (1, 3, 10, 16 and 27). Out of which two statements (1 and 3) are biased and two (10, 16) are friendly and statement No. 27 in neutral.

Interpretation :

30 (60%) teachers are agree, 01 (02%) teachers are neutral and 19 (38%) teachers are disagree with item No. 1, which says that boys monitor the class more effectively than girls. It's a biased attitude of the teachers.

And in the same way, 43 (86%) teachers are agree, 02 (4%) teachers are disagree with the statement No. 3 that in the classroom separate seating arrangement is essential for girls. Thus, this statement also reflects biased attitude of the teachers related to classroom environment.

Girls participate more actively than boys in co-curricular activities (statement No. 10). For this 34 (68%) teachers show disagreement and 16 (32%) teachers are agree with the notion and reflect the friendly attitude of the teachers.

While for the statement No. 16, 44 (88%) teachers are agree that in classroom quarrels boys are more than girls. Where as 06 (12%) teachers are disagree. This also shows the gender friendly attitude of the teachers.

Girls should be allowed to play with boys (statement No.27), 24 (48%) teachers are agree with the notion but at the same time 25 (50%) teachers are disagree with the view and only 1 (2%) teacher expresses no idea. On the basis of the percentage of agree and disagree i.e. 48% and 50% respectively we can say that among all the teachers, half of the teachers are agree and half of the teachers are disagree. Thus the opinion of teachers is almost equal. And so we can say that the responses reflect the neutral attitude of teachers towards classroom environment.

4.2.3 Classroom Observation Schedule :

Uptillnow the analysis was based upon the data collected from the teachers and students through questionnaires. Now, the investigator analyses the data based on the classroom observation schedule.

Teacher's behaviour in the class

Item No.	Yes		No		Remarks
	Number	Percentage	Number	Percentage	
1	18	90%	02	10%	Gender Bias
2	02	10%	18	90%	Gender Bias
3	04	20%	16	80%	Gender Bias
5	05	25%	15	75%	Gender Bias
13	19	95%	01	05%	Gender Bias

Table - 10

Table No. 10 contains, 5 statements (1, 2, 3, 5 and 13) which reflect teachers' behaviour with the students in the classroom. All the statements show the biased attitude of the teachers.

Interpretation :

The investigator found 18 (90%) teachers out of 20 speak with gender inhibition (Statement No. 1) and 02 (10%) teachers are not of that behaviour.

For the statement No. 2, 18 (90%) teachers' eye contact is not equally shared. While only 2 (10%) teachers do this. This is also a biased attitude.

Teachers give equal opportunities to boys and girls (item No. 3). For this 16 (80%) are found favourable and 4 (20%) teachers are not favourable.

Similarly 17 (75%) teachers do not give reinforcement equally to boys and girls (Item No. 5). 05 (25%) teachers give reinforcement.

And for the statement No. 13, 19 (95%) teachers out of 20 say 'Yes' and only 1 teacher say 'No'. And this way this statement also reflects the biased attitude of the teachers in the classroom.

Teachers' role in Curriculum Transaction

Item No.	Yes		No		Remarks
	Number	Percentage	Number	Percentage	
4	05	25%	15	75%	Gender Bias
7	15	75%	05	25%	Gender Friendly
9	18	90%	02	10%	Gender Friendly
10	04	20%	16	80%	Gender Bias
11	06	30%	14	70%	Gender Bias
14	04	20%	16	80%	Gender Bias

Table - 11

This table comprises 6 statements (4, 7, 9, 10, 11 and 14). Out of which statement No. 4, 10, 11 and 14 reflect the biased attitude of the teachers towards the curriculum transaction. While only two statements (17 and 9) show gender friendliness.

Interpretation :

For the item No. 4 the researcher found that 15 (75%) teachers assign classroom responsibilities equally and 05 (25%) teachers do not do this. Therefore its' a gender bias.

Only 5 (25%) teachers give group work with gender bias (statement No. 7) whereas 15 (75%) teachers out of 20 reflect gender friendliness

by giving group work without gender bias.

Similarly 18 (90%) are found that in their class teaching learning material is equally accessible to boys and girls (statement 9). While 02 (10%) teachers do not follow this practice. And therefore the statement reflects the gender friendly attitude of the teachers.

This table reveals that 16 (80%) teachers say 'No' to the statement no. 10, that there is no gender bias in the content and visuals of the TLM (Teaching Learning Material), whereas 4 (20%) teachers say 'Yes' to the statement which reflects the gender biased behaviour of teachers.

Statement No. 11 also reflects gender bias because 14 (70%) teachers say that boys and girls do not enjoy equal freedom in using TLM while 6 (30%) teachers say that the students enjoy.

16 (80%) teachers do not pay equal attention to boys and girls (statement No. 14) and 04 (20%) teachers do this and thus they give a beginning to the gender bias.

Teachers' Role in Classroom Environment

Item No.	Yes		No		Remarks
	Number	Percentage	Number	Percentage	
6	05	25%	15	75%	Gender Bias
8	15	75%	05	25%	Gender Friendly
12	01	05%	19	95%	Gender Bias
15	18	90%	02	10%	Gender Bias

Table -12

Table - 12 is associated with the classroom environment having 6, 8, 12 and 15 statements. Out of which statement No. 8 is found gender friendly and the rest three i.e. statement No. 06, 12 and 15 show biased attitude of the teacher with regard to classroom environment.

Interpretation :

The investigator found that both boys and girls do not interact freely in the classes of 15 (75%) teachers. Whereas 5 (25%) teachers allow them to interact freely. This shows the gender bias.

The table reveals that for the statement No. 08, which states that boys and girls maintain mutual respect, 15 (75%) teachers say 'Yes' and 5 (25%) teachers say 'No'. This shows the biased classroom environment.

For the statement No. 12, 19 (95%) teachers say 'No' and only 01 (5%) teacher say 'Yes'. It gives an indication of biased classroom environment.

Lastly with respect to the classroom environment the investigator found that in 18 (90%) teachers' classes boy students are dominant and girl students are shy. Only 2 (10%) classes are found where the situation was reverse. This statement also show the biased attitude of the teachers towards classroom environment.

On the basis of the above analysis the investigator derived some conclusions which are described in the next chapter of the study.

