

Chapter 4

Data Analysis and Interpretation

Chapter 4

ANALYSIS AND INTERPRETATION

This chapter deals with the presentation, analysis and the interpretation of the data with the help of various tools of the study mentioned in Chapter 3. In order to facilitate presentation and bring brevity in interpretation the entire analysis has been presented in five sections as follows –

- First. Presentation and Analysis of the content of Political Science text books of Class IX and multimedia package to see conformity.
- Second. Presentation and Analysis of opinion of the Political Science teachers and students of Class IX.
- Third. Presentation and Analysis of opinions of teachers and students as per their Gender.

4.1. Presentation and Analysis of the Content of Political Science Text Book with Content of Multimedia Package

Objective No. 1

In this section, the syllabus of Political Science Class IX text book is analyzed by content analysis method.

- To study the conformity of the content of multimedia package with content of Political Science Class IX.

The conformity of the content of text book of Political Science in Class IX was established by following steps –

1. The researcher studied and analyzed the textbook content thoroughly with self prepared check list, to see which aspect of text book and multimedia package match.

2. This check list was also given to the three teachers to confirm the content of Political Science textbooks syllabus with the software package they are using. Therefore, four persons examine the conformities of the content in the text books and in multimedia package. The different components of multimedia used in the package for various chapters are given below –

Table 4.1.

Showing Class – IXth Multimedia Package Components in Political Science

Sr. No.	Chapter Name	Text	Graphic	Audio	Video	Animation	Description
1.	What is Democracy? Why Democracy?						
	What is Democracy?	5 (100%)	3 (60%)	4 (80%)	4 (80%)	2 (40%)	
	Features of Democracy	3 (60%)	3 (60%)	5 (100%)	5 (100%)	4 (80%)	
	Why Democracy?	2 (40%)	5 (100%)	4 (80%)	4 (80%)	3 (60%)	
	Broader Meanings of Democracy	5 (100%)	4 (80%)	4 (80%)	2 (40%)	1 (20%)	
2.	Constitutional Design						

	Democr atic Constitu tion in South Africa	4 (80 %)	5 (100%)	5 (100%)	2 (40%)	3 (60%)	
	Why do we need a constitut ion?	5 (100 %)	2 (40%)	2 (40%)	4 (80%)	1 (20%)	
	Making of the Indian Constitu tion	4 (80 %)	3 (60%)	5 (100%)	3 (60%)	5 (100%)	
	Guiding Values of the Indian Constitu tion	5 (100 %)	2 (40%)	3 (60%)	2 (40%)	4 (80%)	
3.	Electoral Politics						
	Why Election s?	5 (100 %)	3 (60%)	4 (80%)	3 (60%)	2 (40%)	
	What are our Systems of	5 (100 %)	4 (80%)	5 (100%)	4 (80%)	2 (40%)	

	Election ?						
	What makes Elections in India Democratic?	5 (100%)	3 (60%)	4 (80%)	2 (40%)	2 (40%)	
4.	Working of Institutions						
	How is a major policy decision taken?	2 (50%)	3 (75%)	4 (100%)	5 (50%)	5 (75%)	
	Parliament	4 (100%)	5 (100%)	4 (80%)	4 (80%)	3 (60%)	
	Political Executive	2 (40%)	4 (80%)	5 (100%)	5 (100%)	4 (80%)	
	The Judiciary	4 (80%)	4 (80%)	5 (100%)	3 (60%)	4 (80%)	
5.	Democratic Rights						
	Life without Rights	4 (80%)	4 (80%)	5 (100%)	3 (60%)	4 (80%)	
	Rights in Democracy	3 (60%)	4 (80%)	4 (80%)	5 (100%)	4 (80%)	

Rights in the Indian Constitution	4 (80%)	5 (100%)	5 (100%)	4 (80%)	4 (80%)
Expanding Scope of Rights	4 (80%)	5 (100%)	4 (80%)	3 (60%)	2 (40%)

4.2. Presentation and Analysis of the Opinions of Teachers and Students obtained by MPTOA and MPSOA

Objective No. 2 –

To study the opinion of teachers and students of Political Science of Class IX about the multimedia packages.

Table 4.2.

Showing the Opinions of the Teachers in Yes and No on Items of MPTOA

Items	Response	Teachers (20)	
		F	%
1.	A. Yes	12	60
	B. No	8	40
2.	A. Yes	6	30
	B. No	14	70
3.	A. Yes	4	20
	B. No	16	80
4.	A. Yes	9	45
	B. No	11	55

5.	A. Yes	12	60
	B. No	8	40
6.	A. Yes	14	70
	B. No	6	30
7.	A. Yes	14	70
	B. No	6	30
8.	A. Yes	6	30
	B. No	14	70
9.	A. Yes	13	65
	B. No	7	35
10.	A. Yes	13	65
	B. No	7	35
11.	A. Yes	11	55
	B. No	9	45
12.	A. Yes	14	70
	B. No	6	30
13.	A. Yes	12	60
	B. No	8	40
14.	A. Yes	15	75
	B. No	5	25
15.	A. Yes	12	60
	B. No	8	40
16.	A. Yes	16	80
	B. No	4	20
17.	A. Yes	9	45
	B. No	11	55
18.	A. Yes	13	65
	B. No	7	35
19.	A. Yes	13	65
	B. No	7	35

20.	A. Yes	15	75
	B. No	5	25
21.	A. Yes	7	35
	B. No	13	65
22.	A. Yes	13	65
	B. No	7	35
23.	A. Yes	13	65
	B. No	7	35
24.	A. Yes	17	85
	B. No	3	15
25.	A. Yes	5	25
	B. No	15	75
26.	A. Yes	12	60
	B. No	8	40
27.	A. Yes	5	25
	B. No	15	75

Table 4.3.

Coding

Sl. No.	Items	Color
A.	Favorable	
B.	Unfavorable	

Table 4.4.

Showing the Opinions of Students in Yes or No on items on MPSOA

Items	Response	Students (80)	
		F	%
1.	I. Yes	45	56.25

	II. No	35	43.75
2.	I. Yes	61	76.25
	II. No	19	23.75
3.	I. Yes	47	58.75
	II. No	33	41.25
4.	I. Yes	62	77.50
	II. No	18	22.50
5.	I. Yes	55	68.75
	II. No	25	31.25
6.	I. Yes	65	81.25
	II. No	15	18.75
7.	I. Yes	14	17.50
	II. No	66	82.50
8.	I. Yes	63	78.75
	II. No	17	21.25
9.	I. Yes	7	8.75
	II. No	73	91.25
10.	I. Yes	42	52.50
	II. No	38	47.50
11.	I. Yes	32	40
	II. No	48	60
12.	I. Yes	28	35
	II. No	52	65
13.	I. Yes	64	80
	II. No	16	20
14.	I. Yes	22	27.5
	II. No	58	72.50
15.	I. Yes	59	73.75
	II. No	21	26.25
16.	I. Yes	17	21.25

	II.	No	63	78.75
17.	I.	Yes	66	82.50
	II.	No	14	17.50
18.	I.	Yes	30	37.50
	II.	No	50	62.50
19.	I.	Yes	51	63.75
	II.	No	29	36.25
20.	I.	Yes	22	27.50
	II.	No	58	72.50
21.	I.	Yes	66	82.50
	II.	No	14	17.50
22.	I.	Yes	38	47.50
	II.	No	42	52.50

Table 4.5.

Showing χ^2 (chi square) values of Opinions of the Teachers about the Multimedia Package in Terms of their Gender.

Items	Response	Teachers Gender wise		χ^2	df
		Male	Female		
		Observed	Observed		
1.	Yes	5	7	The chi-square statistic is 0.8333. The p-value is .36131. The result is not significant at $p < .05$	1
	No	5	3		
2.	Yes	2	4	The chi-square statistic is 0.9524. The p-value is .329114. The	1
	No	8	6		

				result is not significant at $p < .05$	
3.	Yes	1	3	The chi-square statistic is 1.25. The p-value is .263552. The result is not significant at $p < .05$.	<u>1</u>
	No	9	7		
4.	Yes	3	6	The chi-square statistic is 1.8182. The p-value is .17753. The result is not significant at $p < .05$	<u>1</u>
	No	7	4		
5.	Yes	7	5	The chi-square statistic is 0.8333. The p-value is .36131. The result is not significant at $p < .05$	<u>1</u>
	No	3	5		
6.	Yes	6	8	The chi-square statistic is 0.9524. The p-value is .329114. The result is not significant at $p < .0$	<u>1</u>
	No	4	2		
7.	Yes	9	5	The chi-square statistic is 3.8095. The p-value is .050962. The result is not significant at $p < .05$	<u>1</u>
	No	1	5		
8.	Yes	2	4	The chi-square statistic is 0.9524. The p-value is .329114. The result	<u>1</u>
	No	8	6		

21.	Yes	6	1	The chi-square statistic is 5.4945. The p-value is 0.019076. The result is significant at $p < .05$	<u>1</u>
	No	4	9		
22.	Yes	6	7	The chi-square statistic is 0.2198. The p-value is 0.639207. The result is not significant at $p < .05$	<u>1</u>
	No	4	3		
23.	Yes	5	8	The chi-square statistic is 1.978. The p-value is 0.159599. The result is not significant at $p < .05$	<u>1</u>
	No	5	2		
24.	Yes	7	10	The chi-square statistic is 3.529. The p-value is 0.060. The result is not significant at $p < .05$	<u>1</u>
	No	3	0		
25.	Yes	3	2	The chi-square statistic is 0.2667. The p-value is .605577. The result is not significant at $p < .05$	<u>1</u>
	No	7	8		
26.	Yes	4	8	The chi-square statistic is 3.3333. The p-value is .067889. The result is not significant at $p < .05$	<u>1</u>
	No	6	2		

27.	Yes	1	4	The chi-square statistic is 2.4. The p-value is .121335. The result is not significant at $p < .05$	<u>1</u>
	No	9	6		

Interpretation

With reference to Table 10, results show that x^2 value of Item No. 11 is 5.495, it is significant at 0.05 level. The x^2 value of Item No. 21 is 5.495, it is significant at 0.05 level. Hence, the opinion of male and female teachers differs on Item no. 11 and Item no. 21, that is Multimedia software lesson are easy and simple. Female have a favorable opinion on Item No. 11 and male teachers have a favorable opinion on Item No. 21.

On other items opinions of the teacher do not differ significantly in respect to gender.

Conclusion

Hence, with reference to Table no. 10 the related null hypothesis is accepted that opinion of teachers does not differs in term of their gender and H_1 is rejected except on two items of MPTOA.

Table 4.6.

Showing x^2 (chi square) values of Opinions of the Students about the Multimedia Package in Terms of their Gender.

Items	Response	Students	Students	x^2	df
		Gender wise	Gender wise		
		Male	Female		
1.	Yes	22	23		1

				is not significant at $p < .05$	
9.	Yes	2	5	The chi-square statistic is 1.409. The p-value is .235222. The result is not significant at $p < .05$	1
	No	38	35		
10.	Yes	20	22	The chi-square statistic is 0.2005. The p-value is .654317. The result is not significant at $p < .05$.	1
	No	20	18		
11.	Yes	20	12	The chi-square statistic is 3.3333. The p-value is .067889. The result is not significant at $p < .05$.	1
	No	20	28		
12.	Yes	10	18	The chi-square statistic is 3.5165. The p-value is .060761. The result is not significant at $p < .05$.	1
	No	30	22		
13.	Yes	34	30	The chi-square statistic is 1.25. The p-value is .263552. The result is not significant at $p < .05$.	1
	No	6	10		
14.	Yes	10	12	The chi-square statistic is 0.2508. The p-value is .616524. The result is not significant at $p < .05$.	1
	No	30	28		
15.	Yes	30	29	The chi-square statistic is 0.0646. The p-value is .799416. The result is not significant at $p < .05$	1
	No	10	11		
16.	Yes	10	7	The chi-square statistic is 0.6723. The p-value is	1
	No	30	33		

				.412262. The result is not significant at $p < .05$.	
17.	Yes	30	36	The chi-square statistic is 3.1169. The p-value is .077485. The result is not significant at $p < .05$.	1
	No	10	4		
18.	Yes	15	15	The chi-square statistic is 0. The p-value is 1. The result is not significant at $p < .05$	1
	No	25	25		
19.	Yes	20	31	The chi-square statistic is 6.545. The p-value is .010518. The result is significant at $p < .05$.	1
	No	20	9		
20.	Yes	10	12	The chi-square statistic is 0.2508. The p-value is .616524. The result is not significant at $p < .05$	1
	No	30	28		
21.	Yes	35	31	The chi-square statistic is 1.3853. The p-value is .239204. The result is not significant at $p < .05$.	1
	No	5	9		
22.	Yes	18	20	The chi-square statistic is 0.2005. The p-value is .654317. The result is not significant at $p < .05$	1
	No	22	20		

Interpretation

With reference to Table no. 11, results shows that the χ^2 value of all the items of opinionnaire are not significant at 0.05 level except Item No. 4, 5 and 19. The value of χ^2 for Item No. 4 is 10.3226 is significant at 0.05 level. There is difference of opinion between male and female students in Item

No. 4. The value of χ^2 for Item No. 5 is 13.0909 is significant at 0.05 level. There is difference of opinion between male and female students in Item No. 5. The value of χ^2 for Item no. 19 is 6.545 is significant at 0.05 level. All other items are not significant. Hence, the opinion of students about political science multimedia package does not differs in terms of their gender.

Conclusion

Hence, with reference to Table No. 11, the related null hypothesis (H_0) is accepted that opinion of students does not differs in term of their gender and H_0 is rejected except on three Items of MPSOA.