Chapter - IV

Analysis of
Data
and
Interpretation
of
Result

CHAPTER -IV
ANALYSIS OF DATA
AND
INTERPRETATION OF RESULT

Raw data is worthless without analysis However valid, reliable and adequate the data may be, it does not serve any worth-while purpose, unless it is carefully edited, systematically classified and tabulated, scientifically analyzed, Systematic interpreted and relationally concluded. Good research is characterized by what care has taken in the analysis and interpretation of data. After careful and depth answer to the research questions of decision makers and information users.

Analysis of data means studying the tabulated material in order to determine inherent facts or factors into simple parts and putting the parts together in new arrangements for the purpose of interpretation. The process of interpretation is essentially one of the stating that the result findings show what do you mean ? What is their significance. What is answer to the original problem ? This part is the heart of the research . It calls for a critical examination of the result of one's analysis in light of all the limitations of data gathering.

This chapter includes the data colleted form 8 Elementary schools (6 urban & 2 Rural), data obtained from 125 students & opinion of the teachers (By Interview schedule) have been classified and tabulated to facilitate smooth analysis. Analysis and interpretation have been simultaneously made. While interpretating the finding the researcher has taken precaution to make it as objective and meaningful as possible.

Table – 4.1

Professional qualification and teaching experience of teachers

Sr. No.	Qualification of teachers		Teaching experience	Trained	Untrained	Total
1.	B.A. B.Sc.	B.Ed. B.Ed.	22 year 20 year	Trained	Nil	2
2.	M.A. B.Sc. B.A.	B.Ed. B.Ed. B.Ed.	15 year 12 year 10 year	Trained	Nil	3
3.	B.A. M.A. M.Sc.	B.Ed. B.Ed. B.Ed.	8 year 7 year 5 year	Trained	Nil	3
4.	B.Sc. B.A.	B.Ed. B.Ed.	12 year 14 year	Trained	Nil	2
5.	M.A. B.Sc.	B.Ed. B.Ed.	15 year 11 year	Trained	Nil	2
6.	B.A. B.Sc.	B.Ed. B.Ed.	12 year 10 year	Trained	Nil	2
7.	B.SC. B.A.	B.Ed. B.Ed.	9 year 8 year	Trained	Nil	2
8.	B.A. B.Sc.	B.Ed. B.Ed.	7 year 5 year	Trained	Nil	2

Table 4.1 Shows professional status of Eight elementary school teachers in warud Tehsil of Amravati District. All teachers are trained and well experienced.

Analysis of the student questionnaires:

The questionnaires were administered to 125 students of 8 elementary schools in warud Tahsil of amravati District.

4.1 Perception of students regarding the Quality, format and Treatment of the Educational multimedia Programmes produced by private publisher .

S.N.	Statement of the question	Yes	No
1.	Which programme do you like most when you are watching television? Give your answer in order of preference serials, News, Movies.	News-72.2% SerialsS-13.6% Movies – 15.2%	Nil
2.	Do you also watch other programmes on television out of the following? Educational Programmes, scientific programmes, Discovery programmes	97.6%	2.4%
3.	Do you also watch some of the programmes related to education. If yes what are the names of programmes select any one of following 1. Bal chitrd wani. 2. Scientific-programmes 3. Discovery programmes	26.4%=33 24% =30 49.6%= 62	Nil
4.	Which of the educational programmes normally you prefer to see on television . 1. Science based programme. 2. Multimedia programme. 3. Bal chitra wani.	31.2% = 68 54.4% = 39 14.4% = 18	Nil
5.	Are these type of programmes interesting for you.	97.6% = 122	2.4 =3
6.	How many times do you watch such programmes in		Nil

	a week		
	1. One's	17.6% = 22	
	2. Twice	4.4 % = 5	
	3. Thrice	78% = 98	
7.	Do you have any idea about agencies producing educational programmes for you.	37.6 %= 47	62.4%
8.	Do you like multimedia programmes .	94.4%	5.6%
9.	ultimedia programmes which programme do you like most ? Graphical Representation. Experimentation, still pictures, videography. Computer Animation. Special effects, 3D effect pictures, sound effects Quizzes dealing with exercises such as Brain storming group discussion. All these above.	22.4% 77.6%	Nil
10.	Do you like quizzes in multimedia programmes	91.2%	8.8%
11.	Do you like animation in multimedia programmes	95.2%	4.8%
12.	Do you like graphical Representation in multimedia programmes	95.2%	4.8%
13.	Do you like exercise questions in multimedia programmes	96%	4%
14.	Which part of this programmes you like most, out of the following. 1. Demonstration, 2. Computer animation 3. Quiz based questions	 7.2 67.2 25.6	Nil
15.	Why did you like this programme because. 1. Production was good. 2. Treatment of programme was good. 3. Quality of programme was good.	 3.2 12 18.4	Nil

	4. Script and direction was good.	4.8	
	5. All the above	76.8	
16.	Are the graphical part of the programmes clear to you.	73.6	26.4
17.	Do you feel that you will under stand better if your teacher uses multimedia in class room	96.8%	3.2%
18.	Which part of the multimedia programme fascinates you most ?		
	I Computer Animation	90%	Nil
	Special effects, 3D effects pictures, sound effects	77%	
	III quizes dealing with exercise.	76%	
19.	Would you like to see more multimedia programmes in other subjects ?	92%	8%
20.	Which are the subjects in which you would like to see more multimedia programmes mention the names of subjects .		Nil
	I. Science	76.8%	
	II. Social Science	70.4%	
	III. Mathematics	73.6%	
	IV. English	54.4%	
21.	Have you ever seen any multimedia programme before ?	8.8%	91.2%
22.	Have you ever handle computer ?	50.4%	49.6%
23.	Have you ever experienced any of multimedia programmes on computer.	5%	95%
24.	Question based on animation Name the components of water.		
	I. N& H	3.2%	
	II. H & O	96.8%	
	III. N & O		

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25.	Why does ice float on water		
	I. Density of ICE is more than water.	6.4	
	II. Density of ICE is less than water.	93.6	
	Density of ICE & water not playing any role		
26.	Why distilled water not suitable for drinking		
	I. Minerals are present.	14.4%	
	II. Minerals are not present.	69.6%	
	III. Germs are present.	16%	
27.	Water covers only ------- of the earth surface.		
	I. 80%	3.2%	
	II. 70 %	96%	
	III. 50%	Nil	
28.	It is difficult to imagine ----- without water		
	I. Song	0.8%	
	II. Mind	4.8%	
	III. Life	95.2%	
29.	All living organisms contains --------- water in their body		
	I. 80%	74.4%	
	II. 90 %	17.6%	
	III. 70%	9.6%	
30.	In your school teacher used this method of teaching before this programme.		100%

With reference to liking most the television programme in order of preference between serials, News & Movies. 72% of the total respondent's opined that they are watching News from Television, 13.6% students expressed that they prefer to watch serials where as 15.2% of the sample students expressed their views that they prefer to watch movies from Television.

With reference to liking of other programmes like educational programmes, scientific programmes & discovery prgrammes, 97.6% of the total respondents expressed that they are watching these programmes on Television.

While analyzing the programme in order of preference between. Balchitra wani, scientific programmes & discovery programmes, 26.4% watching Bal chita wani from Television, 24% expressed that they prefer to watch scientific programmes where as 49.6% of the sample students expressed their views that they prefer to watch discovery programmes on Television.

In the response to watching different types of programmes on Television. Most respondents were of the opinion on that they are watching the following programmes in order of preference.

1. Science based programme.
2. Multimedia programme.
3. Bal chitra wani.

54.4% of the students expressed that they like multimedia programme where as 31.2% of the student expressed that they like science based programme and 14.4% students expressed that they like Bal chitra wani.

During analyzing the interest of watching these programmee 97.6% students opined that they like these programme where as 2.4% of the students opined that they are not interested in these type of programme.

With reference to watching such programme in a week. 17.6% of the students expressed that they are watching such programme ones in a week while 4% of the students expressed that they are watching such programme twice in a week & 78.4% students expressed that they are watching such programmes thrice in a week.

While analyzing the opined about agencies producing educational programme 37.6% they know about which agency produce that who prepare educational programmes while 62.4% does not know about the preparation of educational programmes.

With reference to liking of multimedia programme 94.4% of the students opined that they like multimedia programme while 5.6% of the student opined that they does not like multimedia programmes.

While analyzing liking most of multimedia programmes in order of preference 22.4% of the students expressed that they like computer animation programme most in multimedia programme, where as 77.6% of the students expressed that they like graphical representation experimentation, still pictures, Videography, computer animation, special effects, 3D effects pictures, sound effects, quizzes dealing with exercises such as Brain storming, group discussion in multimedia programmes.

With reference to liking of quizzes in multimedia programme. 91.2% of the students opined that they like quizzes in multimedia programme where as 8.8% of the students opined that they does not like quizzes in multimedia programme.

With reference to liking of animation in multimedia programme. 95.2% of the student expressed that they like animation in multimedia programme where as 4.8% of the student expressed that they does not like animation in multimedia programme.

With reference to liking of graphical Representation in multimedia 95.2% of the students expressed that they like graphical representation in multimedia programme where as 4.8% of the students expressed that they does not like graphical representation in multimedia programme.

with reference to liking of exercise question in multimedia programme 96% of the students expressed that they like exercise questions in multimedia programme where as 4% of the students expressed that they does not like exercise questions in multimedia programme.

While analyzing liking most of programme with order of preference 67.2% students expressed that they like computer animation where as 25.6% students

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expressed that they like quizzes in multimedia & 7.2% student expressed that they like demonstration in multimedia programme mostly.

With reference to reason behind liking most of multimedia programme, 76.8% of the student expressed that they like all the multimedia programme because of –

1. Production was good

2. Treatment of programme was good.

3. Quality of programme was good.

4. Script and direction was good.

Where as 3.2% of students like multimedia programme because of good production, 12% of students like multimedia programme because of good treatment of programme, 18.4% of students like multimedia programme because of good quality of programme & 4.8% of students like multimedia programme because of script and direction of this programme was good.

While analyzing the opinion about understanding the graphical part. 73.6% of the students expressed that they understand graphical part in multimedia fully where 26.4 of the students expressed that they does not understand graphical representation in multimedia programme.

While analyzing the views about use of multimedia programme with the traditional teaching in classroom. 96.8% of the students opined positively where as 3.2% of the students opined negatively.

With reference to expressed regarding the most fascinating multimedia programme in order of preference between computer animation, special effects, 3D effects pictures, sound effects, quizzes dealing with exercises. 77.6% of the students opined that they fascinate computer animation most where as 20.0% of students fascinate mostly special effects, 3D effects pictures, sound effects & 2.4% students fascinates mostly quizzes dealing with exercise.

While analyzing the opined of the students regarding the multimedia programme. 92% of student expressed that would like to see more multimedia programmes in other subjects & 8% of the students expressed that they does not like to see more multimedia programme in other subject.

While analyzing the opined about liking most of multimedia Programmes in other subjects. 76.8% of students expressed that they would like to see more multimedia programme on science . 0.4% of student expressed that they would like to see more multimedia programme on social science, 73.6% of the student expressed that they would like to see more multimedia programme on mathematics while 54.4% of the students expressed that they would like to see more multimedia programme on English subject.

While analyzing the opinion of the students about watching of multimedia programmes . 8.8% of the students expressed that they have watched such programmes some times while 91.2% of the students expressed that they have no idea about the multimedia programmes before watching this programme.

While analyzing the opined about handling of computer in day to day situations 50.4% of the students expressed that they are handling computer regularly in school or at home. Where as 49.6% of the students expressed that they are not handling computer regularly.

While analyzing the opined about the experienced of multimedia programme on computer. 79.2% of the students expressed their views that they have experience multimedia programme where as 20.8% of the student expressed their views that they have not experienced multimedia programme on computer.

4.2 Perception of the students about questions which are based on animation

While analyzing the teaching effect of multimedia on units of VIIth class science text book. It has been observed that after teaching of science by the help of multimedia. Students expressed their views about the suggested question more clearly than before. This shows that multimedia programmes improves the quality of teaching. If teacher can uses multimedia programmes during teaching of subjects then teaching-learning process becomes smoothly occurred class room.

While analyzing the opinion of students regarding the components of water. 96.8% of the students expressed that components of water are hydrogen & oxygen where as 3.2% of the students expressed that components of water are nitrogen and Hydrogen.

While analyzing the opinion of students about why does ice float on water. 93.6% of the students expressed that because of density of ice is less than water where as 6.4% of the students expressed that because of density of ice is more than water.

While analyzing the opined about why distilled water is not suitable for drinking. 69.6% of the students expressed that due to absence of mineral. Similarly 16% of the students expressed that due to presence of germs & 14.4% of the students expressed that due to presence of minerals in distilled water.

While analyzing views about coverage of water on the earth surface 98% of the students opined that water covers 70% of the earth surface where as 3.2% of the students opined that water covers 80% of the earth surface, out of total respond 96% of the students gives response positively where as 3.2% of the student gives response negatively.

With reference to question asked on animation, that what is the percentage of water in organism body 74.4% students expressed that in organism body contains

80% of the water. 17.6% of students expressed that organisms body contains 90% water where as 9.6% of the students opined that organisms body contain 70% of water.

While analyzing the opined about is this method of teaching used in your school. 100% of the students opined that in their school this method of teaching has not in use before watching this programme.

SECTION -II

4.3   Perception   of teachers regarding aspects of Educational Multimedia Programme

The analysis of interview schedule has been done by the investigator by playing back the audio recording recorded at the time of conducting interview during data collection work from the sample schools.

The investigator collected the desired information in form of responses, reactions, opinion and suggestions shared by classroom teachers with the investigator, during the time of interview. These recorded information were analyzed by the investigator in a classified manner and interpreted the statements given by classroom teacher. Later on these statement were used as feed back in response to questions asked on various aspects of present research study.

The investigator had also prepared an written questionnaire in order to co-coordinate the recording of the interview of the classroom teacher, in order to obtain their free & frank opinions, suggestions in the interest of present research study.

The interpretation of the recorded Audio statements as mentioned below.

1.   With response to type of multimedia programme used for science teaching the teachers expressed there views that the multimedia programmes helps them to clarity many hard spots in science teaching for class-VII.

2. Out of total sample teacher 75% of the teachers suggested that the multimedia programmes enables student to understand the subject matter better and interaction between students and teachers is more successful due to the influence of multimedia programme.

3. All most all the teachers suggested unanimously that multimedia progammes reduces the communication gap and physical barriers of classroom deficiencies with reference to lack of scientific teaching aids, apparatus, and laboratory condition. They also suggested that the deficiencies of the classroom teacher could supplement to a large extent by the use of multimedia progammes.

4. While analyzing the interview schedule it was revealed from the discussion of the audio recordings that more than 85 percent of teachers expressed that multimedia progammes for science teaching are not normally available in the rural schools which should be supplied to each school to optimize its utilization effectively.

5. More than 80 percent teachers expressed there views that the teachers should be provided special training programmes with suitable hard ware and soft ware facilities in the rural as well as urban schools to fascinate the extensive utilization of the multimedia programmes

6. In-service training programmes at the Block level, District level and State level should be organized by the DIETS, SCERT, RIE & NCERT to orient the teachers about the innovative techniques of multimedia planning, preparation and its effective utilization for the quantitative improvement of science education in schools.

7. All most 95% of the teachers were of the opinion that schools should the provided at least one computer system with multimedia CDs & DVDs, so that the teachers as well as the students could use the programmes frequently during school hours and beyond the school hours.

8. With reference to feeling of the teachers towards multimedia utilization in the class room, most of the teacher expressed that they fill comfortable in the class

room during teaching while utilizing multimedia programmes, because it accelerates learning in the classroom by minimizing the degree and level of confusion among the students.

9. While the investigator asked the teachers regarding there apprehension about the use of multimedia in the classroom may be responsible to reduce their role and importance, 90% of the teachers expressed that multimedia programme helps them to transact the curriculum effectively than traditional style of teaching.

10. Lastly the investigator asked the teachers about their possible role in designing and preparing multimedia programmes of similar nature for the students, 90% of the teachers expressed their views that if chances are given to them by the competent agencies with adequate physical and financial support, they could contribute many of there innovative ideas to produce qualitative multimedia programmes in a much more lower cost of production.

11. The investigator wanted to known the role of DIET and SCERT of the state with reference to providing any special multimedia programme for using multimedia in classroom. In response to this 90% of the respondent teachers expressed that neither the state agency nor the District level authority have organized any such programme in the past years.