

CHAPTER – IV
ANALYSIS OF DATA AND
INTERPRETATION RESULTS

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4.0.0 INTRODUCTION

The introduction, rationale of the study, objectives along with the delimitation of the present study have been presented in the chapter I. The review of literature along with the summary of the previous researches are presented in Chapter – II. The methodology of the study including the tools and the procedure of data collection and the techniques of data analysis are given in Chapter – III. In the present chapter, the objective-wise analysis of the data and the interpretations of the results and its related findings are presented under separate captions.

4.1.0 PERSPECTIVES OF SECONDARY SCHOOL SCIENCE TEACHERS ABOUT USAGE OF ICT IN CLASSROOM

The first objective of the present research was to study the perceptions of the secondary school science teachers about the usage of ICT in classroom. The perspectives of secondary school science teachers about the use of ICT can be studied by analysing the data that were collected by the researcher. The researcher asked 40 questions to teachers with varied experience, gender, age group and subject taught by them. Out of these forty questions, thirty questions were asked to understand their inclination towards ICT which comes under the scope of the dissertation. The data was analysed by taking the average and by taking the percentage.

Strongly Disagree- 1

Disagree- 2

Neutral- 3

Agree- 4

Strongly Agree- 5

The data is analysed by the researcher in the form of percentage and shown in the below chart.

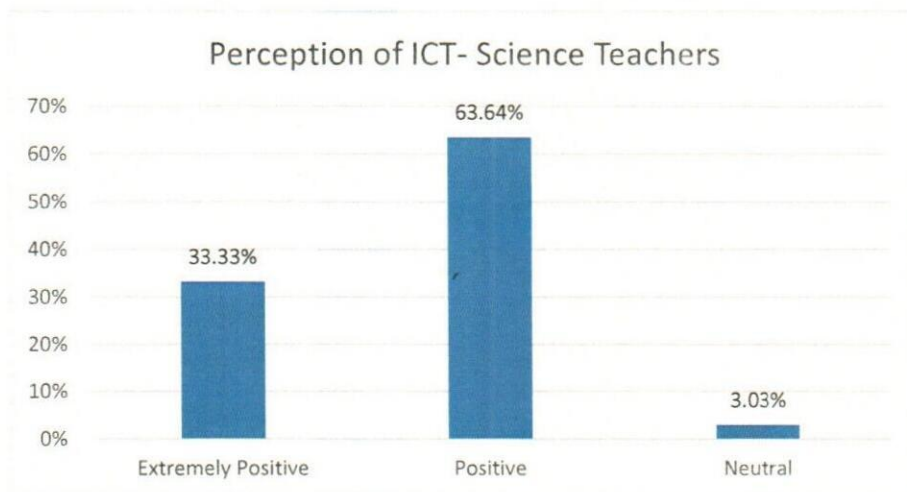


Fig:4.2: Perception of ICT- Science Teachers

From the above chart, it was observed that the perceptions of science teachers toward ICT was either positive with a percentage of 63.64% or extremely positive with a percentage of 33.33% with only one outlier as neutral with 3.03%.

Finding: The science teachers were very interested in using ICT in their classroom teaching.

4.3.0 PERSPECTIVES OF SECONDARY SCHOOL ARTS TEACHERS ABOUT USAGE OF ICT IN CLASSROOM

The second objective was to study the perspectives of secondary school arts teachers about usage of ICT un classroom. The perspectives of secondary school art teachers about the use of ICT can be studied by analysing the data that were collected by the researcher. The researcher asked 40 questions to teachers with varied experience, gender, age group and subject taught by them. Out of these forty questions, thirty questions were asked to understand their inclination towards ICT which comes under the scope of the dissertation. The data was analysed by taking the average and the percentage.

Strongly Disagree- 1

Disagree- 2

Neutral- 3

Agree- 4

Strongly Agree- 5

Out of the thirty questions, some questions favour the usage of ICT in the classroom. For them the above scale of response is applicable (Strongly Disagree-1,...,Strongly Agree-5). For others, which oppose the usage of ICT the standardization was done by the researcher in the reverse way (Strongly Agree-1,...,Strongly Disagree-5). After standardizing the responses, the researcher got scores in the range of 86 to 133. The maximum possible score is 150 as each question has five options as described, above.

After analysing all the responses and standardizing them the researcher divided the responses into three categories to understand if there's any differences of opinion. If the score is below 90, the researcher marked them as Neutral or Negative. If the score is above 90 and below 120, the researcher marked them as positive and if the score is equal to or above 120, the researcher marked them as extremely positive.

The data analysed by the researcher in the form of average shown below.

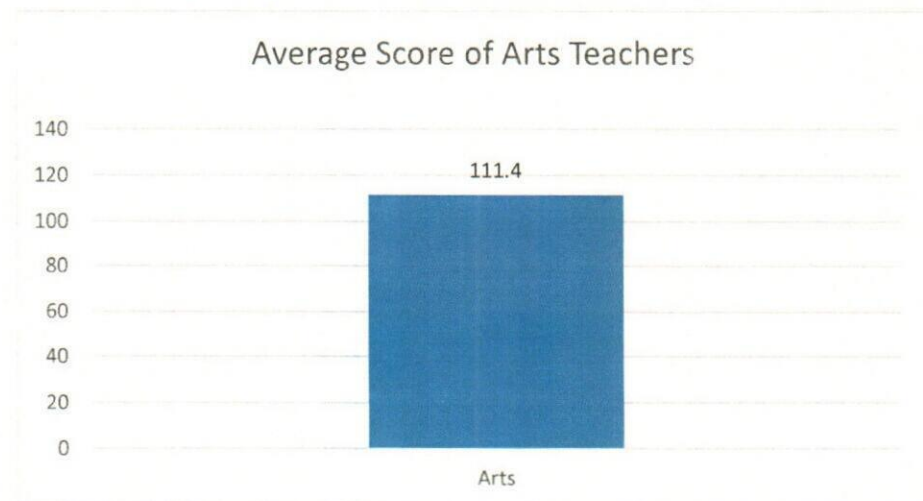


Fig:4.3: Average Score of Arts Teachers Perception

The average score of arts teachers was calculated to be 111.4 by the researcher. The average score of arts teachers was indicating that they were enthusiastic about the usage of ICT in the classroom.

The data analysed by the researcher in the form of percentage and shown in the below chart.

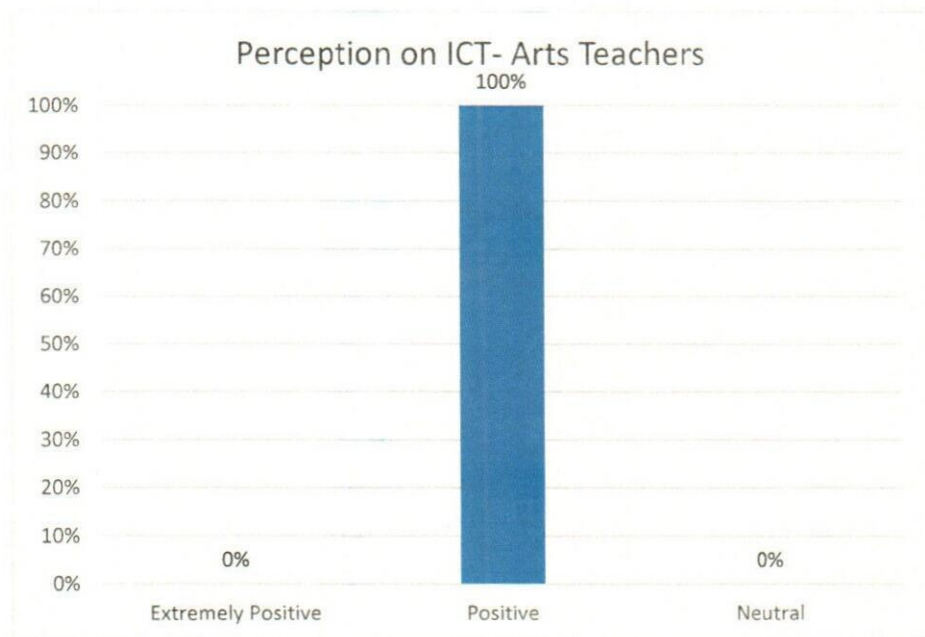


Fig:4.4: Perception of ICT- Arts Teachers

From the above chart, it was observed that the perceptions of arts teachers toward ICT was positive with a percentage of 100%. Therefore, it was found that arts teachers were very interested in using ICT in their classroom teaching. The perception towards ICT was positive for Arts teachers with less variability. It shows that they were also inclined to learn and apply ICT for better classroom experience.

Finding: The Arts teachers were very interested in using ICT in their classroom teaching.

4.4.0 TEACHER'S PERSPECTIVES WITH RESPECT TO THEIR GENDER, AGE AND EXPERIENCE

The third objective was to study the teacher's perspectives with respect to their gender, age and experience. The perception of the teachers with respect to their gender, age and experience can be calculated from the data collected by the researcher using the tool. The researcher asked 40 questions to

teachers with varied experience, gender, age group and subject taught by them. Out of these forty questions, thirty questions were asked to understand their inclination towards ICT which comes under the scope of the dissertation. The data was analysed by taking the average and the percentage.

Strongly Disagree- 1

Disagree- 2

Neutral- 3

Agree- 4

Strongly Agree- 5

Out of the thirty questions, some questions favour the usage of ICT in the classroom. For them the above scale of response is applicable (Strongly Disagree-1,....,Strongly Agree-5). For others, which oppose the usage of ICT the standardization was done by the researcher in the reverse way (Strongly Agree-1,....,Strongly Disagree-5). After standardizing the responses, the researcher got scores in the range of 86 to 133. The maximum possible score is 150 as each question has five options as described, above.

After analysing all the responses and standardizing them the researcher divided the responses into three categories to understand if there's any differences of opinion. If the score is below 90, the researcher marked them as Neutral or Negative. If the score is above 90 and below 120, the researcher marked them as positive and if the score is equal to or above 120, the researcher marked them as extremely positive. The researcher divided the analysis into three categories that is Gender, Age Group and Experience to understand if there's any differences of opinion.

4.4.1 Gender

The below table shows the average perception score of teachers on the basis of their gender. The final result of perception of teachers with respect to their gender was summarised below. For male teachers, it was 115.9 and for female teachers, it was 113.9.

Table:4.1: Average Score of Teacher with Respect to Their Gender

Gender	Average Score
Male	115.9
Female	113.9

The data analysed by the researcher in the form of average and shown in the below chart.

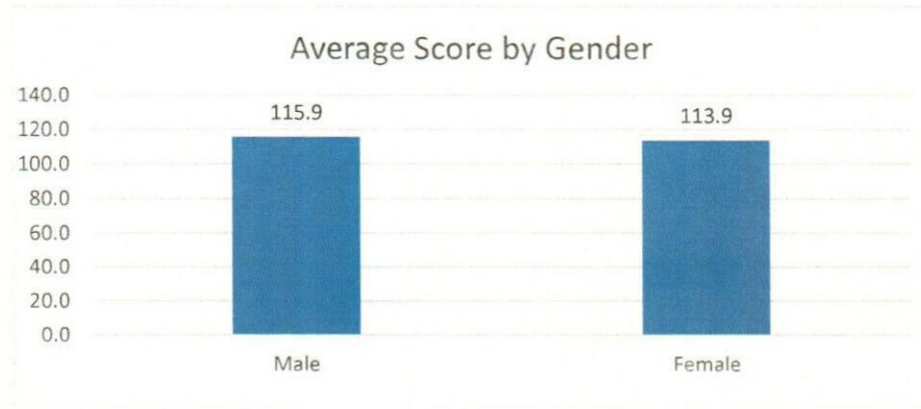


Fig:4.5: Average Score of Perception of Teachers by Gender

As observed from the chart, there's no significant difference between the average scores of male teachers and female teachers with average scores of 115.9 and 113.9 respectively. The score of male teachers was marginally higher than the female teachers but not significant.

The table shows the percentage of the analysed data to understand the perspectives of teachers with respect to their gender. The researcher analysed the score by percentage level, the overall perception was either positive with 70.37% of male teachers and 71.43% of female teachers supporting ICT or extremely positive with 29.63% of male teachers and 21.43% of female teachers supporting ICT. Only one response was Neutral with 7.14% of female teachers, which can be easily considered as an outlier.

Table:4.2: Percentage Score of Teacher with Respect to Their Gender

Gender	Extremely Positive	Positive	Neutral or Negative
Male	29.63%	70.37%	0.00%
Female	21.43%	71.43%	7.14%

The data analysed by the researcher in the form of percentage and shown in the below chart.

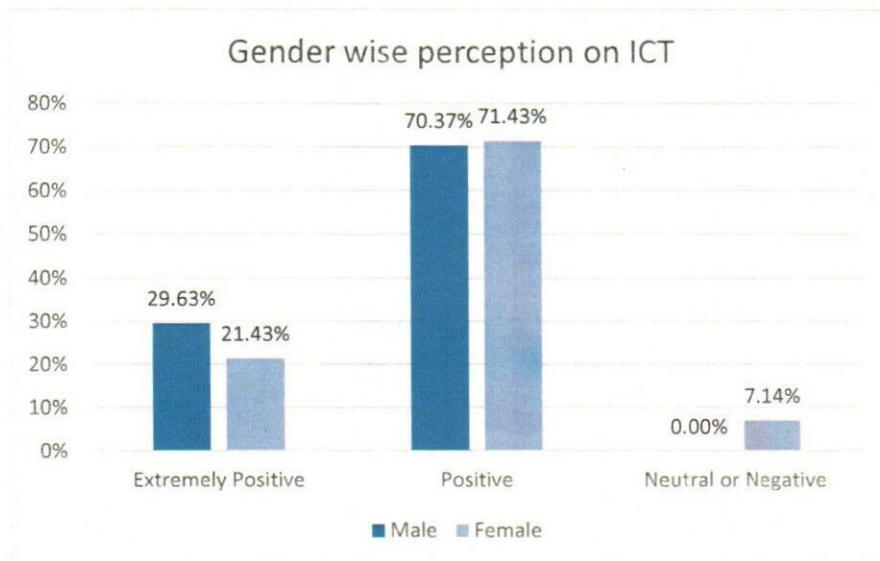


Fig:4.6: Gender wise perception on ICT

The above chart shows the percentage scores of the perceptions of the teachers with respect to their gender. The researcher analysed the score by percentage level. It was shown that the overall perception is either positive or extremely positive irrespective of the gender. Only one response is Neutral, which can be easily considered as an outlier. So, there is no significant difference between male teachers and female teachers on ICT.

Finding: There is no significant difference between male teachers and female teachers on ICT.

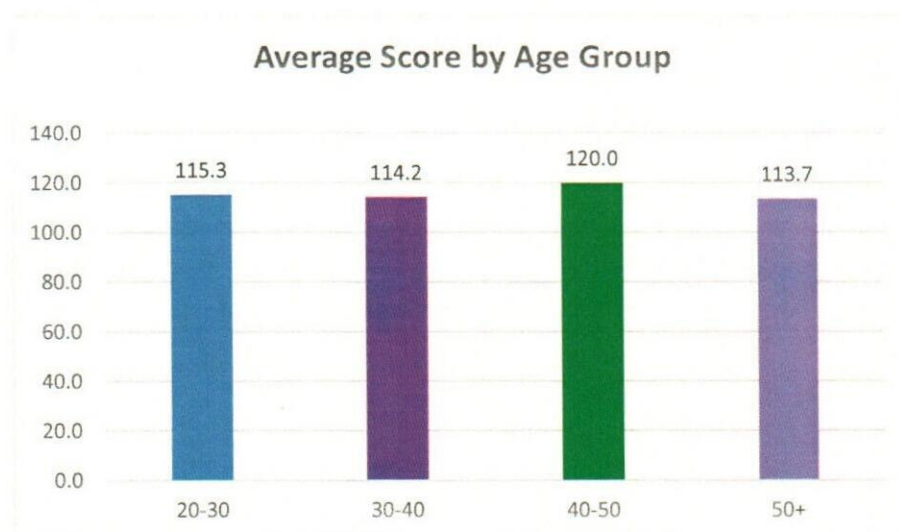
4.4.2 Age Group

The below table shows the average perception score of teachers on the basis of their Age Group. The final result of perception of teachers with respect to their Age Group was summarised below. For teachers with age group (20-30), it was 115.3, For teachers with age group (30-40), it was 114.2, For teachers with age group (40-50), it was 120.0, and for teachers above 50 age group, it was 113.7.

Table:4.3: Average Score of Teacher with Respect to Their Age

Age Group	Average Score
20-30	115.3
30-40	114.2
40-50	120.0
50+	113.7

The data analysed by the researcher in the form of average and shown in the below chart.

**Fig:4.7: Age Group wise perception on ICT**

As observed from the above chart, it was observed that there is no significant difference between any age group. So, the researcher can easily assume the perception on ICT is similar irrespective of the age group.

The table shows the percentage of the analysed data to understand the perspectives of teachers with respect to their age. The researcher analysed the score by percentage level. The perception varied slightly in terms of percentage as with 71.88%, 80%, 0% and 66% as 'Positive', 25%, 20%, 100% and 0% with 'Extremely Positive' and 3.13%, 0%, 0%, 0% with 'Neutral' respectively, the researcher needed to look here that almost all the responses are either "Positive" or "Extremely Positive".

Table:4.4: Percentage Score of Teacher with Respect to Their Age

Age Group	Extremely Positive	Positive	Neutral or Negative
20-30	25.00%	71.88%	3.13%
30-40	20.00%	80.00%	0.00%
40-50	100.00%	0.00%	0.00%
50+	33.33%	66.67%	0.00%

The data analysed by the researcher in the form of percentage and shown in the below chart.

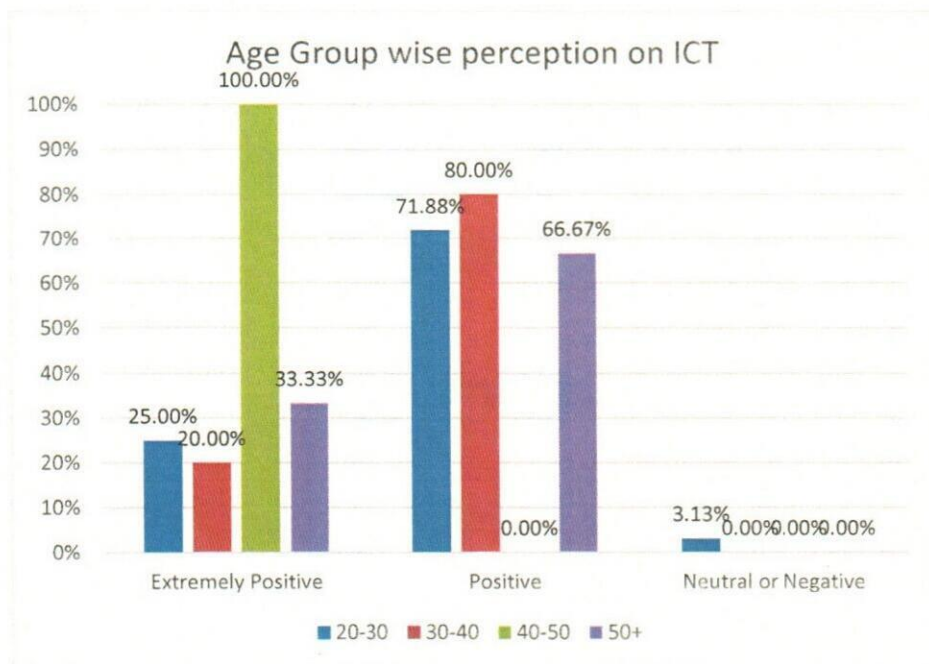


Fig:4.8: Age Group wise Perception in ICT

From the above chart it was observed that the perception varied slightly in terms of percentage. The researcher needs to look here that almost all the responses are either “Positive” or “Extremely Positive”. As the sample size is limited, the researcher saw little variability but as the sample size grows, the researcher might see a similar pattern. But as all but one response is positive, the researcher can easily say there is no significant difference observed across various age groups.

Finding: There is no significant difference observed across various age groups.

4.4.3 Experience

The below table shows the average perception score of teachers on the basis of their Experience. The final result of perception of teachers with respect to their Experience was summarised below. For teachers with experience (0-5) years, it was 114.8, for teachers with experience (5-10) years, it was 118.2, for teachers with experience (10-20) years, it was 114.0, and for teachers above 20 years' experience, it was 113.7.

Table:4.5: Average Score of Teacher with Respect to Their Experience

Experience	Average Score
0-5	114.8
5-10	118.2
10-20	114.0
20+	113.7

The data analysed by the researcher in the form of average and shown in the below chart.



Fig:4.9: Average Score of Teacher by Experience

From the above chart it was observed that, the average score by various experience group is similar and there's no significant difference observed. So, the teachers with various teaching experience were more interested to use ICT in their classroom teaching.

The table shows the percentage of the analysed data to understand the perspectives of teachers with respect to their experience. The researcher

analysed the score by percentage level. The perception varied slightly in terms of percentage as with 73.33%, 50%, 100% and 66.67% as 'Positive', 23.33%, 50%, 0% and 33.33% with 'Extremely Positive' and 3.33%, 0%, 0%, 0% with 'Neutral' respectively, the researcher needed to look here that almost all the responses are either "Positive" or "Extremely Positive".

Table:4.6: Percentage Score of Teacher wrt Their Experience

Experience (Years)	Extremely Positive	Positive	Neutral or Negative
0-5	23.33%	73.33%	3.33%
5-10.	50.00%	50.00%	0.00%
10-20.	0.00%	100.00%	0.00%
20+	33.33%	66.67%	0.00%

The data analysed by the researcher in the form of percentage and shown in the below chart.

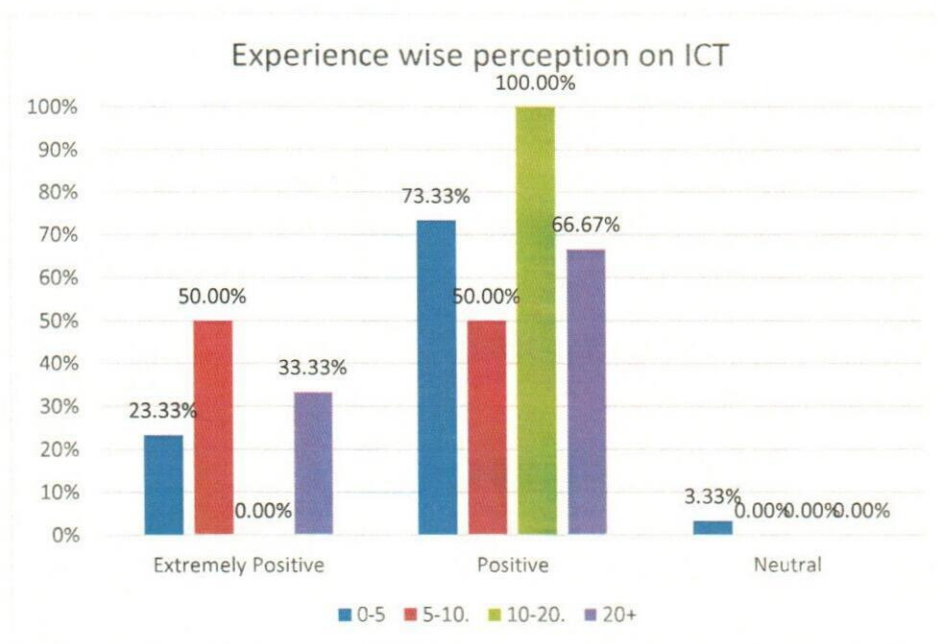


Fig:4.10: Experience wise Perception on ICT

It was observed from the above chart that the responses were either positive or extremely positive. Though there was minor variability, but the researcher believed that it was due to the sample size. So, there is no significant difference observed by experience also. All were excited to embrace the change and use ICT for a better classroom experience.

Finding: There is no significant difference observed by experience.

4.5.0 CONCLUSION

The fourth chapter analysed the data and interpreted the results with respect to the objectives. The data was clearly analysed and standardized and explained in the form of tables and charts. The following chapter presents the summary of findings, discussion, educational implications, recommendations, and suggestions for further studies.