CHAPTER-4

ANALYSIS AND INTERPRETATION OF DATA

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4.1 INTRODUCATION

In last chapter, the researcher described the methodology of the study, which covered variables operationalized by formulation of hypothesis, sampling techniques, tools and procedures of data collection and statistical procedures to be employed. The present chapter deals with the analysis of the data and discussion of the findings.

4.2 OBJECTIVES OF THE STUDY

1. To study the effect of ict integration pedagogy on the academic achievement of student of upper secondary level in physics.

2. To study the effect of ict integration pedagogy on the academic achievement among boys and girls of upper secondary level in physics.

4.3 STATISTICAL PROCEDURE EMPLOYED

In this section, we performed the descriptive statistics i.e. mean and standard deviations of pretest post-test scores of student's academic achievement and also gender wise.

Table 1.Frequency distribution of pre-test scores

Class interval	F
9 -11	4
12 -14	7
15 -17	9
18 -20	5
21 -23	7
24 -26	0
27 -29	0
30 -32	0
33 -35	1

	T=33

The data presented in the table provides information about pre-test and it showed that majority of students were average in respect to their academic achievement in subject of physics. There were no students whose academic achievement was either extremely poor or extremely high.

Table 2. Frequency distribution of post test scores

Class interval	F
25 -27	1
28 -30	6
31 -33	8
34 -36	4
37 -39	13
40 -42	1
	T=33

The above table shows the frequency distribution of post-test scores. Entries in the above table provide information about post-test. it shows that after the treatment, student's academic achievement was high, which also visible thorough figure is given above.

The results are presented in the following tables

Table 3. Mean and Standard Deviation of the Raw Scores

Categories	No of students	Means	SD
Pre test	33	16.72	5.25
Post test	33	33.90	3.86

4.4 ANALYSIS OF HYPOTHESIS

Objective-1: To study the effect of ict integration pedagogy on the academic achievement of student of upper secondary level in physics.

Ho1: There is no significant difference between the pretest achievement scores and posttest achievement scores of the students.

Table4. Significance of difference between pre-test and post-test academic achievement scores of student.

Categories	No of students	means	Sd	T test	P
Pretest	33	16.72	5.25	-19.714	0.00
Posttest	33	33.90	3.86		

df=32   t.05=1.68

The above tables shows that the actual difference between the mean of pre-test and post-test score was found to be highly significant because the calculated t value is higher than critical t value at .05 level of significance and is also significant at 0.00 level. The null hypothesis is, therefore, rejected. It can be concluded that there is a significance difference between the mean academic achievement scores of pre-test and post-test after the treatment.
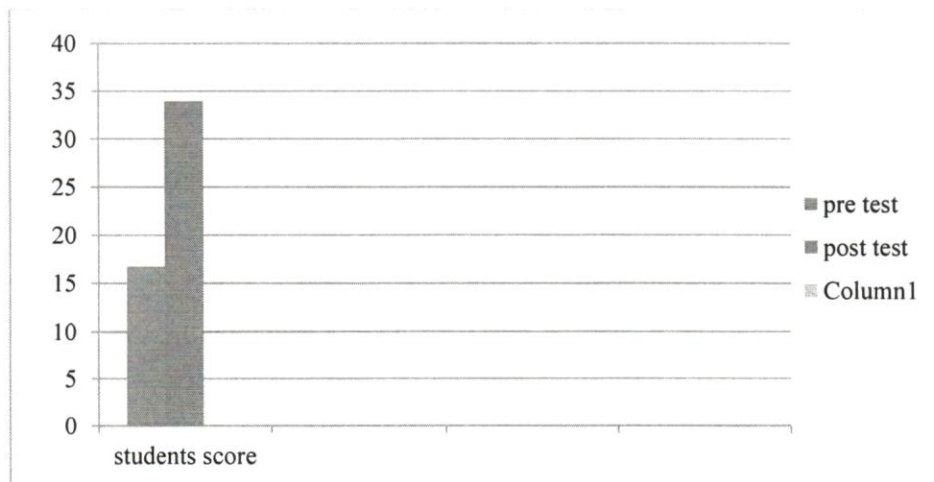

Figure 1

INTERPRETATION:

On the basis of the statistical analysis of the data, the following findings are made:

The mean score of pre-test was 16.72 with 5.25 standard deviation while the mean score of post-test was 33.90 with 3.86 standard deviation.

Difference between the academic achievement score of pre-test and post-test was 17.18 which were highly significant because the calculated t value is higher than the critical t value at 0.05 level of significance. Therefore null hypothesis was rejected.

Objective- 2*:* To study the effect of ict integration pedagogy on the academic achievement among boys and girls of upper secondary level in physics

Ho2*:* There is no significant difference between the posttest achievement scores of boys and girls.

Table5. Mean and Standard Deviation of the Raw Scores of boys and girls

Categories	No of students	means	SD
Boys	20	35.25	2.86
Girls	13	32.23	4.11

| categories	No of students	Posttest means	sd	t test
Boys	20	35.25		-0.0343
Girls	13	32.23		

  Df=64   t.05=1.66

The above table shows that the actual there is no difference between the mean of post-test scores of boys and post-test score of girls because the calculated t value is lower than critical t value at .05 level of significance. The null hypothesis is,

therefore, accepted. It can be concluded that there is no significance difference between the mean academic achievement scores of post-test of boys and post-test of girls.

Graph
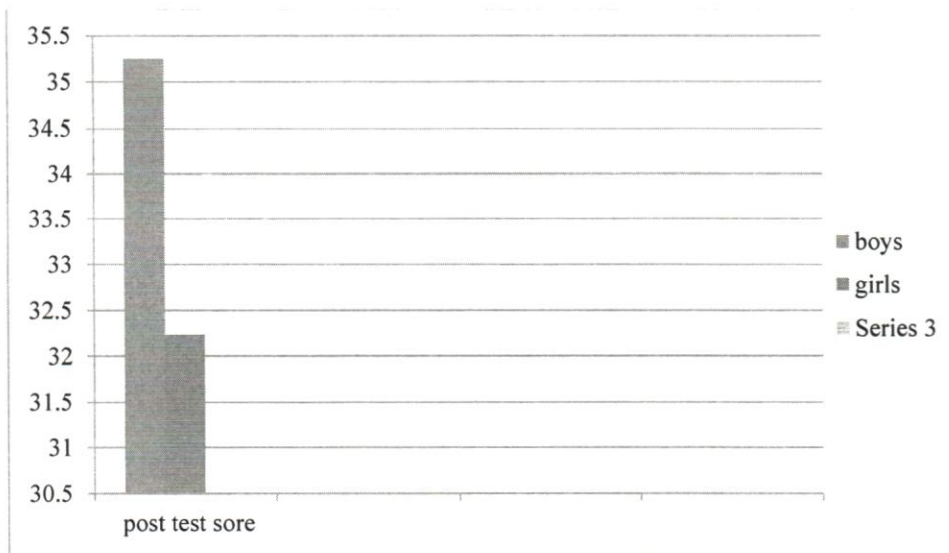
INTERPRETATION:

On the basis of the statistical analysis of the data, the following findings are made:

The mean score of post-test of boys was 35.25 with 2.86 standard deviation while the mean score of post-test of girls was 32.23 with 4.11 standard deviation.

Difference between the academic achievement of post test score of boys and girls was 3.02 which were is not highly significant because the calculated t value is higher than the critical t value at 0.05 level of significance. Therefore null hypothesis was accepted.