

**CHAPTER – IV**  
**ANALYSIS AND INTERPRETATION OF DATA**  
**AND RESULTS**  
**INDEX**

<b>CHAPTER NO.</b>	<b>DESCRIPTION</b>	<b>PAGE NO.</b>
<b>4.</b>	<b>ANALYSIS AND INTERPRETATION OF DATA AND RESULTS.</b>	
	4.1 EQUATION OF TWO GROUPS	57
	4.2 EQUIVALENT GROUPS	58
	4.3 I-POD INTEREST ANALYSIS AND INTERPRETATION	59
	4.4 ANALYSIS OF SCORES IN LEASTENING I- POD AND CONVENTIONAL METHOD	74
	4.5 TESTING OF HYPOTHESIS	75

## **CHAPTER – IV**

# **ANALYSIS AND INTERPRETATION OF DATA AND RESULTS**

Research is nothing but an application of scientific method of thinking to solve our problems. Experimental research is a process of using scientific method to get information and solving the problem. In experimental research, it is necessary to formulate hypothesis, collect, organize and evaluate data, make deduction and draw conclusions and suggest solutions, which determines whether they are fit to earlier formulations. To conduct the research most precise and universally accepted experiment and every activity in experiment should be planned. Hypotheses should be tested by standard statistical procedures after analyzing data.

Statistics is a body of mathematical techniques or processes for gathering, organizing, analyzing and interpreting numerical data. So it is a tool of measurement, evaluation and research. Measurement is the most precise and universally accepted process of description, assigning quantitative values to the properties of objects and events.

To compare the effectiveness of two methods of teaching the experiment is set up in this study. From the same population on the basis of achievement in unit test in terms of score by making pairs of equal marks. One student for experimental group and another is in the controlled group. The traditional method was used to teach for control group and communicative approach was used for the experimental group to compare its effectiveness on speaking skill with that of control group where, traditional method is used for teaching same unit.

#### 4.1 EQUATION OF 'E' AND 'C' GROUP

**Table No. 1**

**Scores in Pre-Test**

(On the Basic of Unit Test Score)

Roll No's.	Score	Roll No's.	Score	Roll No's.	Score
1	07	28	10	55	06
2	A	29	08	56	04
3	03	30	12	57	12
4	11	31	07	58	13
5	08	32	09	59	07
6	13	33	15	60	05
7	10	34	12	61	06
8	08	35	11	62	A
9	05	36	10	63	06
10	03	37	A	64	09
11	A	38	09	65	A
12	03	39	A	66	07
13	09	40	A	67	10
14	08	41	05	68	07
15	09	42	10	69	05
16	11	43	13	70	09
17	08	44	14	71	11
18	A	45	07	72	08
19	A	46	06	73	08
20	14	47	09	74	09
21	08	48	09	75	07
22	07	49	11	76	A
23	05	50	08	77	12
24	04	51	04	78	09
25	07	52	11	79	09
26	12	53	A	80	06
27	10	54	A		

This list shows equation of two Groups according to unit test score.

#### 4.2 EQUIVALENT GROUPS.

Equivalent groups are made according to be series in Pre-Test 25 students selected for experimental group & 25 for controlled group. The researcher has tried to control variables like intellectual capacity, gender etc. In the following table Roll Nos. are given for separate group.

**TABLE NO. 2**

#### **GROUPS FOR LISTENING I-POD AND CONVENTIONAL METHOD**

<b>'Experimental' Group</b>		<b>'Controlled' Group</b>	
	<b>Roll No's.</b>		<b>Roll No's.</b>
	1, 8, 9, 12, 13, 17, 18, 23, 26, 31, 35,, 36, 44, 48, 55, 59, 60, 61, 67, 68, 70, 71, 73, 74, 77.		5, 6, 7, 11, 20, 22, 24, 25, 27, 37, 38, 39, 41, 42, 45, 46, 52, 53, 57, 62, 63, 69, 75, 79, 80.

### 4.3 I-POD INTEREST ANALYSIS AND INTERPRETATION.

**Table No. 3**  
**STUDY OPTIONS**

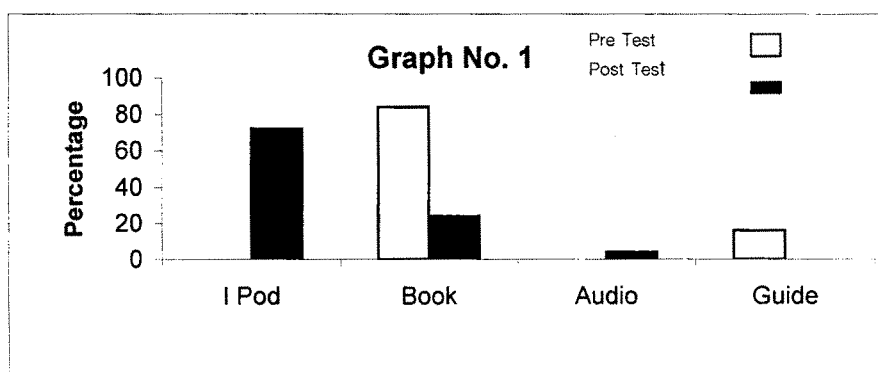
	i Pod	Book	Audio	Guide	Total
Pre-Test	00	21	00	04	25
Percentage	00%	84%	00%	16%	100%
Post-Test	18	06	01	00	25
Percentage	72%	24%	04%	00%	100%

#### Observation

The above table No. 3 shows the response for the 84% students prefer the option of book for study in pretest. After experiment it was observed in post test that, 72% students prefer the option of i-Pod for their study & 24% for the book.

#### Finding

In pre test students are Choose the option of i pod in their study but in post test after experiment 72% students prefer the option of i pod for their study.



#### Graph No.1

The above graph No. 1 shows the comparison between pre test and post test of Q.No.1.

In pre test students are Choose the option of i pod in their study but in post test after experiment 72% students prefer the option of i pod for their study.

**Table No. 4**  
**PREFERENCE FOR STUDY**

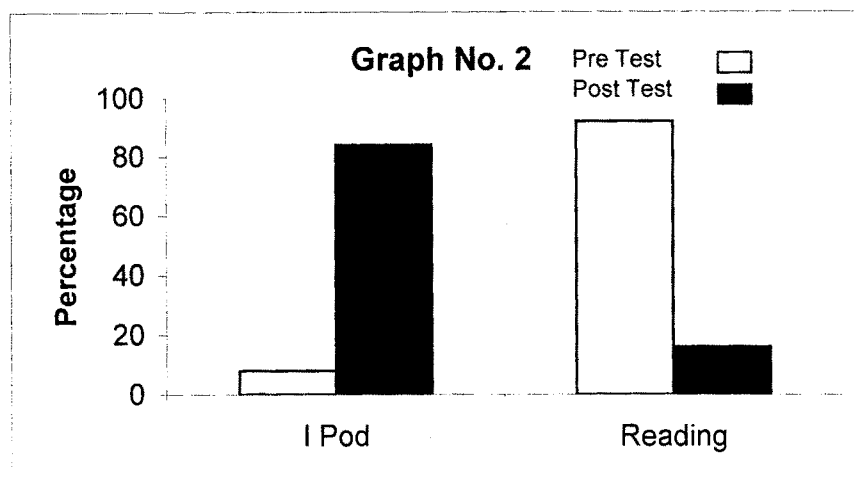
	<b>i Pod</b>	<b>Reading</b>	<b>Total</b>
Pre-Test	02	23	25
Percentage	08%	92%	100%
Post-Test	21	04	25
Percentage	84%	16%	100%

### Observation

The above table No. 4 shows the responses of students 92% students prefer reading for their study while 08% students prefer i Pod as in pre-test. After experiment, it was observed in post-test that 84% students prefer study with i pod.

### Finding

In pre test 08% students Prefer i Pod in their study but in post test after experiment 84% students prefer to i Pod in their study.



### Graph No. 2

The above graph No. 2 shows the – comparison between pre test and post test of Q.No. 2.

In pre test 08% students Prefer i Pod in their study but in post test after experiment 84% students prefer to i Pod in their study.

**Table No. 5**  
**STUDENTS LIKING**

	<b>Listening</b>	<b>Reading</b>	<b>Total</b>
Pre-Test	19	06	25
Percentage	76%	24%	100%
Post-Test	25	00	25
Percentage	100%	00%	100%

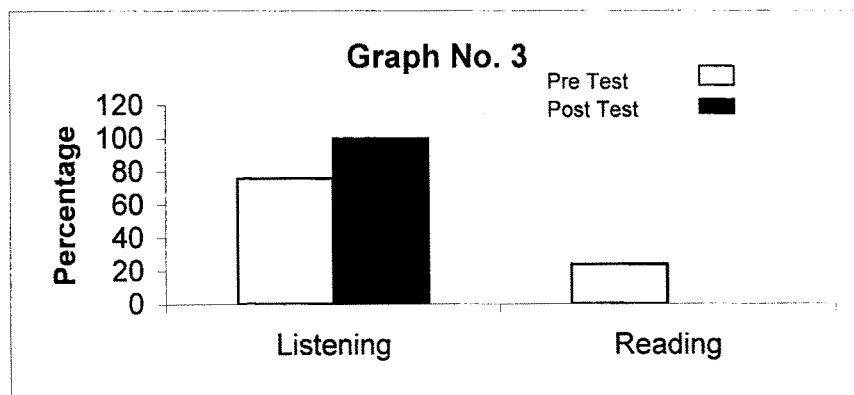
### Observation

The above table No. 5 shows the response of Q.No. 3.

In pre-test it is observed that 76% students liking to listen i Pod in their study whether 24% students liking to read. In post-test it was observed that 100% students were liking listening the i Pod for their study. It means study with i Pod is more interesting for students.

### Finding

In pre test 76% students are liked to listen i pod for study at the time of journey But applying an experiment 100% students are liked to listen i pod for study at the time of journey.



### Graph No. 3

The above graph No. 3 shows the – comparison between pre test and post Test of Q. No. 3.

In pre test 76% students are liked to listen i pod for study at the time of journey But applying an experiment 100% students are liked to listen i pod for study at the time of journey.

**Table No. 6**  
**INTEREST IN LISTENING I-POD**

	Yes	No	Total
Pre-Test	21	04	25
Percentage	84%	16%	100%
Post-Test	25	00	25
Percentage	100%	00%	100%

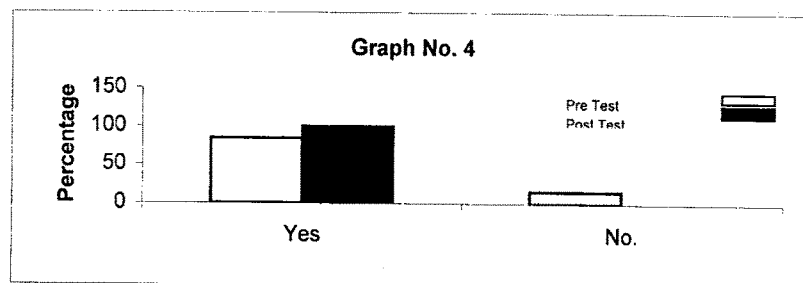
### Observation

Table No. 6 shows the response of Q. No. 4.

In pre-test, 84% students are interesting to listen i Pod when they are busy in another work whereas, 16% students were not listening. In post-test, it was observed that 100% students are interested to learn content with i Pod listening. When they are busy with their another work.

### Finding

In pre test 84% students liked to listen some content with i Pod when they are busy in another work But after experiment 100% students are liked to listen some content with i Pod when they are busy in another work.



### Graph No. 4

The above graph No. 4 shows the – comparison between pre test and post Test of Q. No. 4.

In pre test 84% students liked to listen some content with i Pod when they are busy in another work But after experiment 100% students are liked to listen some content with i Pod when they are busy in another work.



**Table No. 7**  
**EYES ACHING**

	Yes	No	Total
Pre-Test	20	05	25
Percentage	80%	20%	100%
Post-Test	19	06	25
Percentage	76%	24%	100%

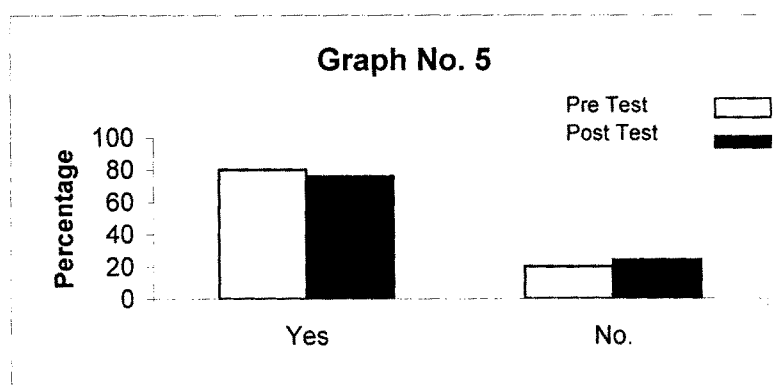
### Observation

Table No. 7 shows the responses of Q. No. 5.

In pre-test, 80% students eyes were aching while long reading and 20% students are saying there is no aching. In post Test it was observed that 76% students have the trouble of eye aching it means that use of i Pod for listening recovered eye aching.

### Finding

In pre test 80% students eyes were aching while long reading but after an experiment 76% students have the trouble of eye aching. It means that the use of i pod for listening recovered eye aching.



### Graph No. 5

The above graph No. 5 shows the comparison between pre test and post test of Q. No. 5.

In pre test 80% students eyes were aching while long reading but after an experiment 76% students have the trouble of eye aching. It means that the use of i pod for listening recovered eye aching.

**Table No. 8**  
**TIME FOR READING**

	Yes	No	Total
Pre-Test	14	11	25
Percentage	66%	44%	100%
Post-Test	15	10	25
Percentage	60%	40%	100%

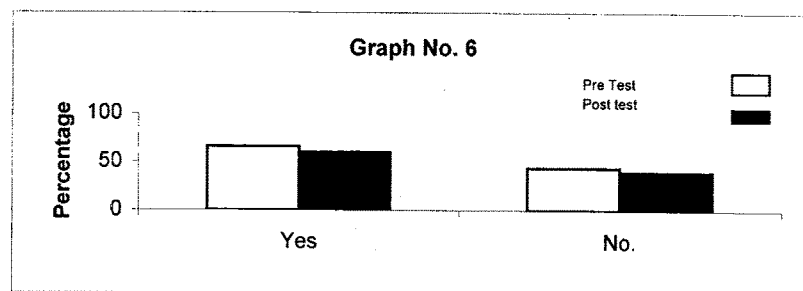
### Observation

Table No. 8 shows the responses of Q.No. 6.

In pretest 66% students have more time for reading and other have no more time. In post Test it is found that 60% students have more time for reading and others have no time for reading. It means that 50% students prefers the learning by listening.

### Finding

In pre test 66% students have more time for reading and another have no more time but after an experimental programme 60% students have more time for reading and others have no time for reading. It means that 50% students prefer the learning by listening.



### Graph No. 6

The above graph No. 6 shows the comparison between pre test and pre test of Q. No. 6.

In pre test 66% students have more time for reading and another have no more time but after an experimental programme 60% students have more time for reading and others have no time for reading. It means that 50% students prefer the learning by listening.

**Table No. 9**  
**LISTENING CONTENT**

	Yes	No	Total
Pre-Test	15	10	25
Percentage	60%	40%	100%
Post-Test	22	03	25
Percentage	88%	12%	100%

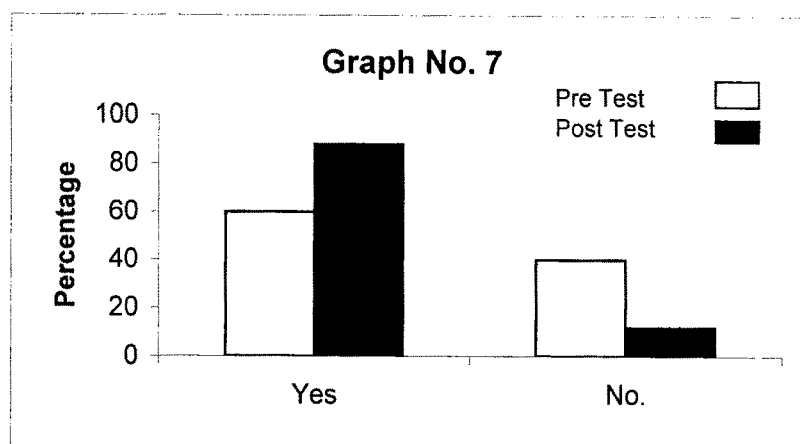
### Observation

Table No. 9 shows the responses of Q.7.

In pretest 60% students like to listen the content rather than reading and 40% students prefers reading in post Test. It is observed that 88% students prefers listening the content rather than reading.

### Finding

In pre test 60% students liked to listen the content instead of reading but after an experiment 88% - students liked to listen the content rather than reading.



### Graph No.7

The above graph No.7 shows the comparison between pre test and post Test of Q. No. 7.

In pre test 60% students liked to listen the content instead of reading but after an experiment 88% - students liked to listen the content rather than reading.

**Table No. 10**  
**AVAILABILITY OF I-POD**

	Yes	No	Total
Pre-Test	14	11	25
Percentage	66%	44%	100%
Post-Test	21	04	25
Percentage	84%	16%	100%

### Observation

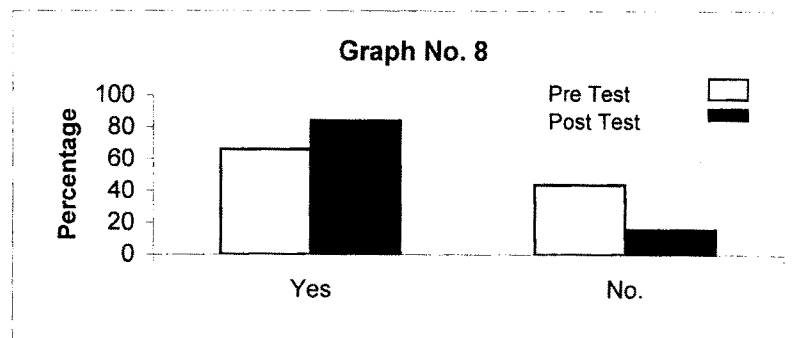
Table No. 10 shows the responses of Q. No. 8.

In pre test 66% students knows the availability of audio aids in the market instead of Reading. While others don't know about this in post-test 84% students are aware about the availability of audio aids in the market.

It means that student should make aware about this.

### Finding

In pre test 66% students knows the availability of audio aids in the market instead of reading. But after an experiment 84% students are aware about the availability of audio aids in the market.



### Graph No.8

The above Graph No. 8 shows the comparison between pre test and post test of Q. No. 8.

In pre test 66% students knows the availability of audio aids in the market instead of reading. But after an experiment 84% students are aware about the availability of audio aids in the market.

**Table No. 11**  
**BUY I-POD FOR STUDY**

	Yes	No	Total
Pre-Test	23	02	25
Percentage	92%	08%	100%
Post-Test	23	02	25
Percentage	92%	08%	100%

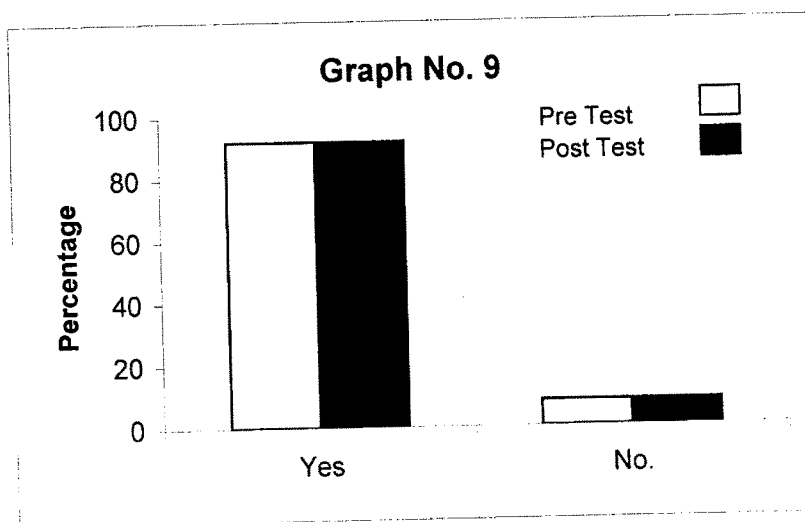
### Observation

Table No.11 9 shows the response of Q. No. 9

In pre test and also in post test 92% students are ready to buy I pod for their study purpose. So proper inspiration should be given.

### Finding

In pre test and also post test 92% students are ready to buy I pod for their study purpose. So proper inspiration should be given.



### Graph No. 9

The above graph No. 9 shows the comparison between pre test and post test of Q. No. 9.

In pre test and also post test 92% students are ready to buy I pod for their study purpose. So proper inspiration should be given.

**Table No. 12**  
**ALTERNATIVE FOR STUDY**

	<b>I Pod</b>	<b>Library</b>	<b>Lecture</b>	<b>Total</b>
Pre-Test	08	13	04	25
Percentage	32%	52%	12%	100%
Post-Test	20	03	02	25
Percentage	80%	12%	08%	100%

### Observation

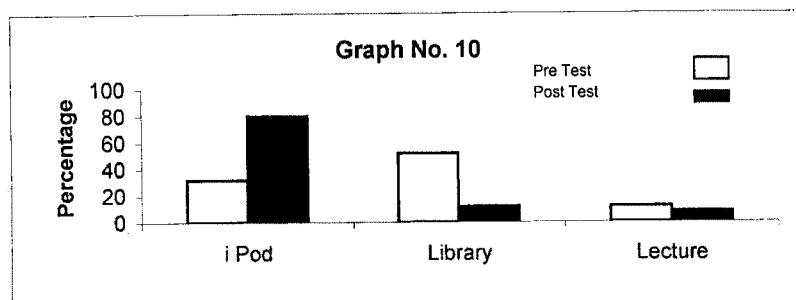
Table No. 12, shows the response of Q.10.

In pre test 52% students prefers for Library reading and 32% students for i Pod listening were as in post test it is observed that 80% students prefers the study with i Pod and 12% students with library.

It means that most of the students prefer the alternative of the I-Pod.

### Finding

In pre test, 52% students prefers for Library reading and 32% students for i pod listening were as in post test it is observed that 80% students prefers the study with i pod and 12% students with library It means that most of the students prefer the alternative of the i pod .



### Graph No. 10

The above graph No.10 shows the comparison between pre test and post test Q. No. 10.

In pre test, 52% students prefers for Library reading and 32% students for i pod listening were as in post test it is observed that 80% students prefers the study with i pod and 12% students with library It means that most of the students prefer the alternative of the i pod.

**Table No. 13**  
**LISTENING I-POD**

	Yes	No	Total
Pre-Test	23	02	25
Percentage	92%	08%	100%
Post-Test	24	01	25
Percentage	96%	04%	100%

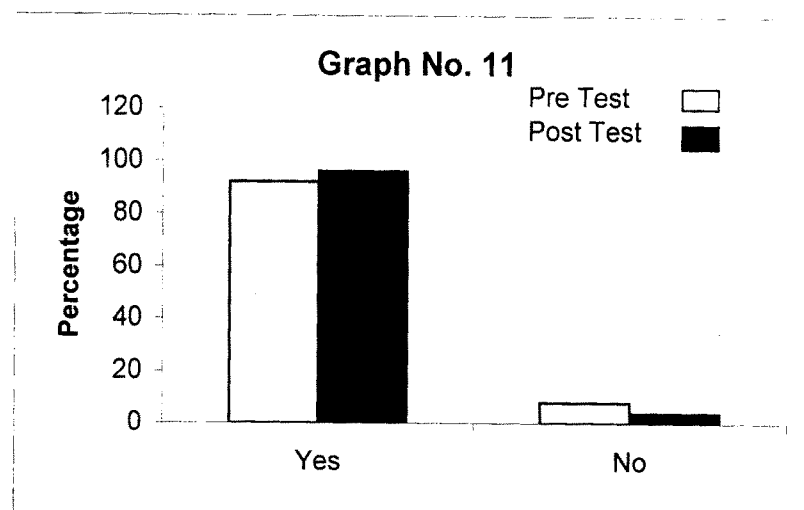
### Observation

Table No. 13 shows the responses of Q. No. 11.

In pre test 92% students are prefer to listen i Pod when it is available in reading hall were as in post Test 96% students are ready to use i Pod in reading hall. So i Pods are essential for reading hall.

### Finding

In pre test & post test 92% students are prefer to listen I pod when it is available in reading hall after.



### Graph No. 11

The above graph shows comparison between pre test and post test of Q. No. 11.

In pre test & post test 92% students are prefer to listen I pod when it is available in reading hall after.

**Table No. 14**  
**LISTENING I-POD FOR MISSED LECTURES**

	Yes	No	Total
Pre-Test	23	02	25
Percentage	92%	08%	100%
Post-Test	25	00	25
Percentage	100%	00%	100%

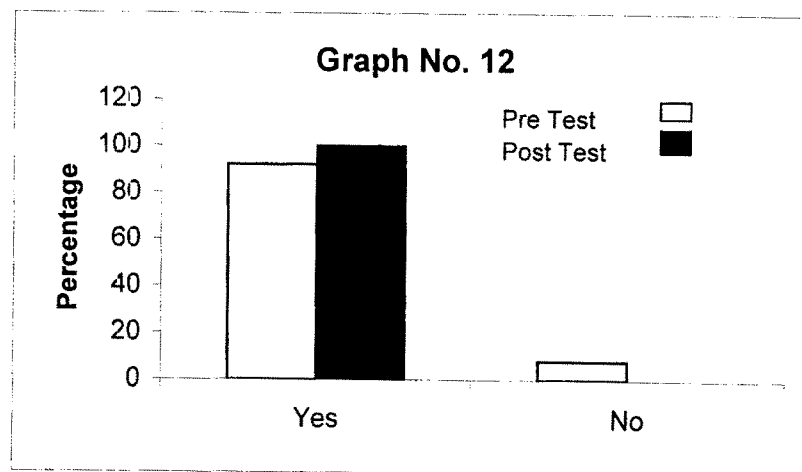
### Observation

Table No. 14 shows the responses of Q. No. 12.

In pre test 92% students are ready to listen missed lecture on i Pod whereas in Post test it is found that 100% students are ready to listen missed lecture with i Pod.

### Finding

In pre test, 92% students are ready to listen missed Lectures on i pod whereas in post- test it is found that 100% students are ready to listen missed lecture with i pod .



### Graph No. 12

The above graph shows comparison Graph No. 12. Between pre test and post test of Q. No. 12.

In pre test, 92% students are ready to listen missed Lectures on i pod whereas in post- test it is found that 100% students are ready to listen missed lecture with i pod .



**Table No. 15**  
**USE OF I-POD IN SELF SPEED LEARNING**

	Yes	No	Total
Pre-Test	13	124	25
Percentage	52%	48%	100%
Post-Test	24	01	25
Percentage	96%	04%	100%

### Observation

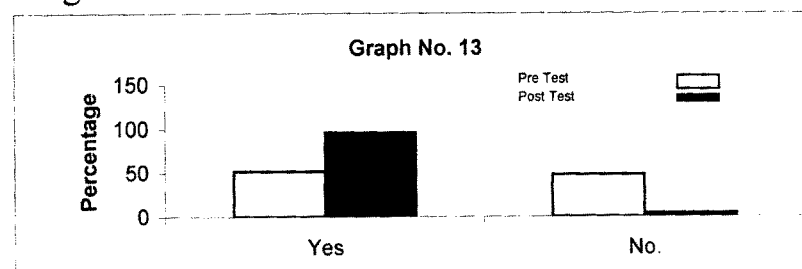
Table No. 15, Shows the responses of Q. No. 13.

In Pre Test 52% students are using i Pod for Self speed learning whereas in Post Test it is found that 96% students are using i Pod in his self speed learning.

It means that most of the students try to enhance their self speed learning with i Pod.

### Finding

In pre test, 52% students are using i pod for self speed learning where as in post test, it is found that 96% students are using I pod in his self speed learning.



**Graph No. 13**

The above graph shows the comparison between pre test and post test of Q. No. 13.

In pre test, 52% students are using i pod for self speed learning where as in post test, it is found that 96% students are using I pod in his self speed learning.

It means that most of the students try to enhance their self-speed learning with I pod.

**Table No. 16**  
**LEARNING WITH i-Pod**

	Yes	No	Total
Pre-Test	10	154	25
Percentage	40%	60%	100%
Post-Test	21	04	25
Percentage	84%	16%	100%

**Observation**

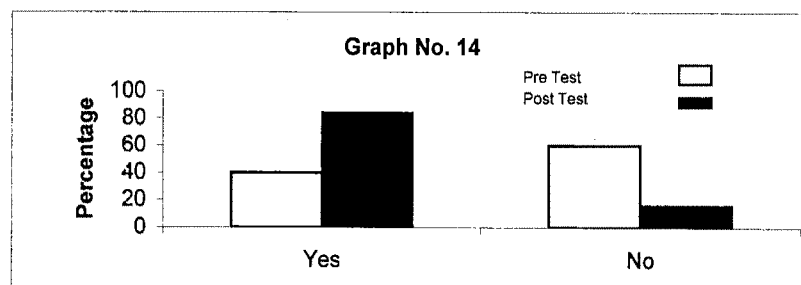
Table No. 16 shows the response of Q.No.14.

In pre test 40% students are feeling that learning with i Pod become effective whereas in post Test it is found that 84% students are feeling that learning with i Pod become effective.

It means almost of the students considers learning with i Pod is effective.

**Finding**

In pre test, 40% students are feeling that learning with I pod become effective whereas in post test it is found that 84% students are feeling that learning with I pod become effective It means almost of the students considers learning with I pod is effective.



**Graph No. 14.**

The above graph shows comparison between pre test and post test of Q. No. 14.

In pre test, 40% students are feeling that learning with I pod become effective whereas in post test it is found that 84% students are feeling that learning with I pod become effective It means almost of the students considers learning with I pod is effective.

**Table No. 17**  
**I-POD IN DAY TO DAY LEARNING**

	Yes	No	Total
Pre-Test	01	24	25
Percentage	4%	96%	100%
Post-Test	05	20	25
Percentage	20%	80%	100%

### Observation

Table No. 17 shows the response of Q.No. 15.

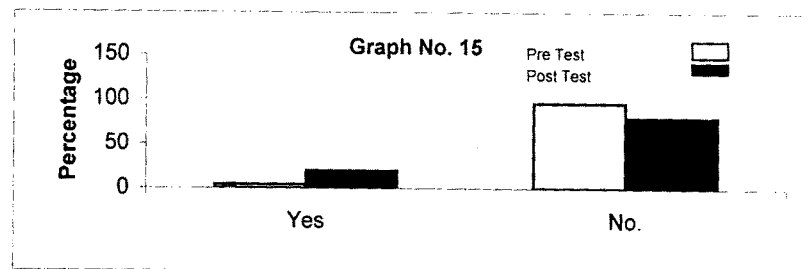
In pre test only 4% students are using i Pod in day to day learning whereas in post Test 20% students are using i Pod in day to day learning.

It means that 80% students do not use i Pod in day to day learning because of lake of awareness and availability of i Pod.

### Finding

In pre test 4% students are using I pod in day to day learning whereas in post Test 2% students are using I pod in day to day learning.

It means that 80% students do not use I pod in day-to-day learning. Because of lack of awareness and availability of i pod.



### Graph No.15

The above graph shows comparison between pre test and post test of Q. No. 15.

In pre test 4% students are using I pod in day to day learning whereas in post Test 2% students are using I pod in day to day learning.

It means that 80% students do not use I pod in day-to-day learning. Because of lack of awareness and availability of i pod.

**TABLE NO. 18****ANALYSIS OF SCORES IN LISTENING I-POD AND CONVENTIONAL METHOD****Experimental Group**

Sr. No.	Roll No's.	Score
1	01	19
2	08	18
3	09	16
4	12	18
5	13	20
6	17	19
7	18	17
8	23	16
9	26	16
10	31	17
11	35	19
12	36	22
13	44	17
14	48	19
15	55	19
16	59	19
17	60	20
18	61	16
19	67	18
20	68	16
21	70	15
22	71	17
23	73	22
24	74	22
25	77	22

**Controlled Group**

Sr. No.	Roll No's	Score
1	05	05
2	06	13
3	07	11
4	11	04
5	20	11
6	22	09
7	24	09
8	25	13
9	27	08
10	37	07
11	38	14
12	39	14
13	41	09
14	42	09
15	45	09
16	46	11
17	52	14
18	53	15
19	57	13
20	62	09
21	63	10
22	69	13
23	75	15
24	79	14
25	80	14

The above table show's score's obtained in post Test by student's.  
These score's are separately given of two groups.

#### 4.5 TESTING OF HYPOTHESIS IN THE STUDY.

**Table No. 19**

**MEAN DIFFERENCE BETWEEN TWO GROUPS.**

Sr. No.	Group	Mean	Difference
1.	Experimental	18.36	7.44
2.	Controlled	10.92	

**Observation**

Above the table No.1 shows the mean difference between experimental and controlled group.

**Finding**

The mean of experimental group is 18.36 whereas the mean of controlled group is 10.92. The mean difference between 'E' group and 'C' group is 7.44.

There is significant mean difference between two groups.

**Table No. 20**

**SD DIFFERENCE BETWEEN TWO GROUPS.**

Sr. No.	Group	S.D.	Difference
1.	Experimental	2.11	0.90
2.	Controlled	3.01	0.90

**Observation**

Above table No. 2 shows the difference between experimental and controlled group.

**Finding**

The S.D. of experimental group is 3.01. The SD difference between 'D' group and 'C' group is 0.90.

**Table No.21**  
**( 't' Test for Two groups)**

Sr. No.	Group	Mean	SD	ds	Standard	't' Values	Calculated t Value	Remark
					0.05	0.01		
1.	Experimental	18.36	2.11	24	2.06	2.80	10.19	H.S.
2.	Controlled	10.92	3.01	24				

Calculated 't' > table 't' at 0.05 level and 0.01 level.

#### **Observation**

Above table No. 3 shows the 't' significant of two groups.

Calculate 't' value 10.19 is grater than standard 't' value 2.06 at 0.05 level and 2.80 at 0.01 level.

#### **Finding**

Hence, Null Hypotheses are rejected. It means that there is significant difference between pre test score of students study interest in i Pod technology. Also there is significant difference between pretest and post test score of students achievement.

#### **TESTING OF THE MAJOR HYPOTHESES**

Null hypotheses are rejected. It clearly shows that the i-Pod technology lays ample effect in students interest in study of B.Ed. Class. So major hypothesis is accepted. It is clearly proved that there is significant difference between.

The means of Post test scores of the students study interest in i-Pod technology.