CHAPTER IV

ANALYSIS AND

INTERPRETATION OF

DATA

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4.1 Introduction

In the previous chapter, the research design of study is thoroughly discussed. Different types of data obtained as a result of conducting experiment were as follows.

In one year's programme a student teacher is supposed to complete the following work.

1.Attendance at Demonstration lessons by teacher educators and Discussion lessons inclusive of Micro lessons, Simulated Teaching lessons and lessons based on Models of teaching.

2.Observation of peer student teachers lessons as:

I.Micro lessons – 10 (Two in each skill)

II.Integrated lessons – 2

III.Classroom lessons – 30 (Fifteen lessons of each method)

3.Completion of different types of practice lessons as in table 4.1

TABLE 4.1

TYPES OF PRACTICE LESSONS

Type	Numbers
Micro teaching lessons	5
Integrated lessons	1
Simulated lessons	2
Models of teaching	2
Practice teaching lessons	30
Bulletin lessons	2
Total	**42**

4.Tutorials:

    i) Attempt all questions for preparation of tutorials.

    ii) Attendance at tutorial under examination conditions.

5.Practical work:

    i) In connection with fieldwork with Community based Programmes,

    ii) Physical Education, and

    iii) Practical related to six theory papers.

6.Personality Development Programme:

Organization and participation in creativity and personality development programme.

7.Examinations: Terminal and Preliminary.

8.Internship Programme: Internship programme of eighteen days duration, in which elements are supposed to complete the following works alongwith their practice teaching lessons

a) Conduct two bulletin lessons.

b) Organize co-curricular activities.

c) Complete action research.

d) Do social service at the school level and at social level.

e) Study the functioning of the school including observation of library, laboratory, school record, the procedure adopted for value education etc.

f) Frame and administer unit tests, statistical analysis practical.

g) Preparation of time table, keeping attendance register.

h) Guidance to a small group of students.

i) Checking students' homework notebooks.

College starts in the last week of June. Working ends in the middle of March.In this period only 258 days are available. Excluding Diwali vacation

(21Days), Holidays (15Days), Sundays (33Days) only 189 days are available. Working six hours a day makes availability of 1140 hours.

To complete all the activities, in the University Syllabus 1250 hours are recommended i.e. 600 hours are for theory papers and 650 are for the rest of the activities respectively. In this respect several questions arise.

1.Can the syllabus be completed within the stipulated time?

2.Is there a need of more hours?

3.How can these are made available?

4.Can all the programs be given attention is as due?

Thus one-year teacher training programme is tightly scheduled. Student teachers hardly find any kind of relief. Here the tension rightly begins because inadequacy of time.

The first objective of this research study was to find out different activities creating tensions. For this purpose a questionnaire was given to all the students teachers in the college. It consisted twenty-one questions. (Appendix 4.1)155 students responded. The items of the questionnaire are further analysed.

For the shake of convenience, these items are classified into two groups 1) General activities in the training programme, 2) Specific activities related to experiences in the college. The analysis is given in Table 4.2

TABLE 4.2

GENERAL ACTIVITIES IN TRAINING PROGRAMME CREATING TENSION

Sr. No.	Name of the Activity	Frequency	
		Positive Response	Negative Response
1	Travelling Inconvenience	58 (37.42)	97 (62.58)
2	Forgetting important things	71 (45.81)	84 (54.19)
3	Absence in the class for the completion of official work	65 (41.94)	90 (58.06)
4	Economic condition of the family	81 (52.25)	74 (47.75)
5	Sharing other family responsibility	90 (55.07)	65 (44.93)
6	Mess Problem	86 (55.48)	69 (44.52)
7	Hostel Atmosphere	80 (51.61)	75 (48.39)

* (Numbers in the brackets show percentage)

Observation and Interpretations:

The analysis in the above table shows that generally 50% student teachers get tension due to above-mentioned activities. Out of these official work and travelling inconvenience are the activities indicated by the student teachers less than 50%.

Findings:-It seems that these activities create less tension amongst student teachers.

Following are the activities related to college. Analysis of these activities is shown in table 4.3

TABLE 4.3

SPECIFIC ACTIVITIES RELATED TO EXPERIENCES IN COLLEGE

Sr. No.	Activity	Positive Response	Negative Response
1	To carry more workload in shorter duration	108 (69.68)	47 (30.32)
2	New atmosphere of the college	90 (58.06)	65 (41.94)
3	Uninteresting & repetitive work	130 (83.87)	25 (16.13)
4	Practical work as an obstacle for the study of theory	127 (82.00)	28 (18.00)
5	Excessive writing work	140 (90.32)	15 (9.68)
6	Mental disturbance due to inadequate facilities provided by schools & college	78 (50.32)	77 (49.68)
7	Insufficient time for reading references & support material	94 (60.64)	61 (39.36)
8	Strain due to coeducation	17 (11.00)	138 (89.00)
9	Sequential tutorials on every Friday	140 (90.32)	15 (9.68)
10	Heavy workload of practice teaching lessons	142 (91.61)	13 (8. 39)
11	Feeling uneasy while conducting a lesson	127 (81.84)	28 (18.06)
12	Fear of classroom stage	111 (71.61)	44 (28.39)
13	Lesson observer's presence in the class	117 (75.48)	38 (24.52)
14	Strict discipline in the college	119 (76.77)	36 (23.23)
15	A desire to be in the merit of the college	71 (45.81)	84 (54.19)

Observations and Interpretion: -

Most of the student teachers have given positive response to the above mentioned activities. Almost all the activities create tension in more than fifty percent student teachers.

Findings: 1) Activities such as excessive writing, sequential tutorials, practice teaching lessons create tension amongst more than 90% of student teachers.

2) Activities such as uninteresting and repetitive work, heavy practical work, feeling uneasy while conducting a lesson create tension in more than 80% of student teachers.

3) More than 70% of student teachers experienced tension due to more workload, fear of classroom stage, presence of lesson observer in the class and strict discipline in the college.

4) Inadequate facilities provided by schools and college, strain due to coeducation and a desire to be in the merit list of the college. These activities affect less in comparison with other activities and the percentage is below fifty.

At the end of the questionnaire one open question was put for the student teachers so that they can respond freely and mention some other activities creating tensions. Most of these activities are stated by the student

teachers creating tension are related to college and teaching learning process. These responses are listed below.

1. Fear of presentation.

2. Adjusted to the college atmosphere.

3. Preparatory tutorials create tension.

4. Tension of completing lesson in time.

5. To write diary and value education notebook.

6. Language problem for few student teachers.

7. Roommates from other faculties disturb a lot in the hostel, therefore can not give time for self-study.

8.For each and every thing there is a queue, which takes maximum time in the morning and cannot complete work in time.

9.For few married students teachers have to maintain family and studies together.

10.Library provide less number of books.

11.Some individual differences create tensions e.g. indistinct talks, no command over language.

12.Tension about accuracy of lesson plan.

13.Time management in practice lessons.

14.Journey from home to college and vice versa, takes a major time.

15.Since Saturday is the weekend, students feel exhausted and tired in afternoon session.

16.Money spent on completion of the programme and uncertainty of seeking job.

4.2 Rationale for selecting teaching competencies for the present study:

1. Table 4.2 shows general activities in training programme creating less tension. All these activities are basically from outside the college premises and mostly are out of control.

2. Table 4.3 shows activities related to college premises. These activities affect most of the student teachers.

3. Experts' opinions were also closely connected to practice teaching as a cause of creating tension.

4. In the questionnaire students' free responses were sought. Seventeen different reasons came out. Most of them were connected to practice teaching or college activities.

5. The main aim of teacher education programme is to enable student teachers to use competencies and skills needed for becoming an efficient teacher.

6. In one year's programme, a student teacher is expected to complete forty-two different types of lessons as already referred to. This is a major part of the training programme.

If the teacher is in the tense situation, his teaching performance is not up to the mark or expected level. It is the need to remove all the tension on their mind and make the student teachers feel free and relaxed in the classroom. It will strengthen teaching and yield good results.

So, the researcher considered practice teaching for this study. He decided to study effect of Stress Reduction Model (SRM) on selected competencies of student teachers.

4.3 Testing Hypothesis:

To study the effect of SRM on selected competencies of student teachers, after the treatment of each set in the model, evaluation of practice teaching lessons was done by using a five-point scale. (Appendix) In order to check whether an experimental group and control group has achieved difference, the following research hypotheses were formulated keeping in view objectives.

H 4.2.0 There is no significant difference in the mean performance of the student teachers from experimental and control groups on practice lesson before the use of Model.

The data available after observing one lesson of each student from both the groups before going to internship programme by the researcher and colleagues were analyzed. Means and standard deviations alongwith t –test of the scores is calculated and is given below in table 4.4

TABLE 4.4

MEANS, STANDARD DEVIATIONS AND T-VALUE OF BOTH THE GROUPS BEFORE THE USE OF MODLE

Sr. No.	Groups	No. of students	Means	S.D.	t-value	Remarks
1	Control	30	58.53	4.64	0.64	Not Significant
2	Experimental	30	59.33	4.99		
Average Mean			58.93			

Required t-value for the df =29 is   2.76 at 0.01 level

And   2.04 at 0.05 level

Observations and Interpretations:

1.Average mean of both the groups is 58.93

2.Mean of control group is 58.53

3.Mean of experimental group is 59.33

4.The mean difference is 0.8 Means of both the groups are approximately the same as average mean.

5.t-value is not significant at both the levels. Hence, H 4.2.0 is accepted.

6.The S.D.s for control and experimental group are 4.64 and 4.99 respectively. Hence, both the groups do not differ from one another before the use of use of Model
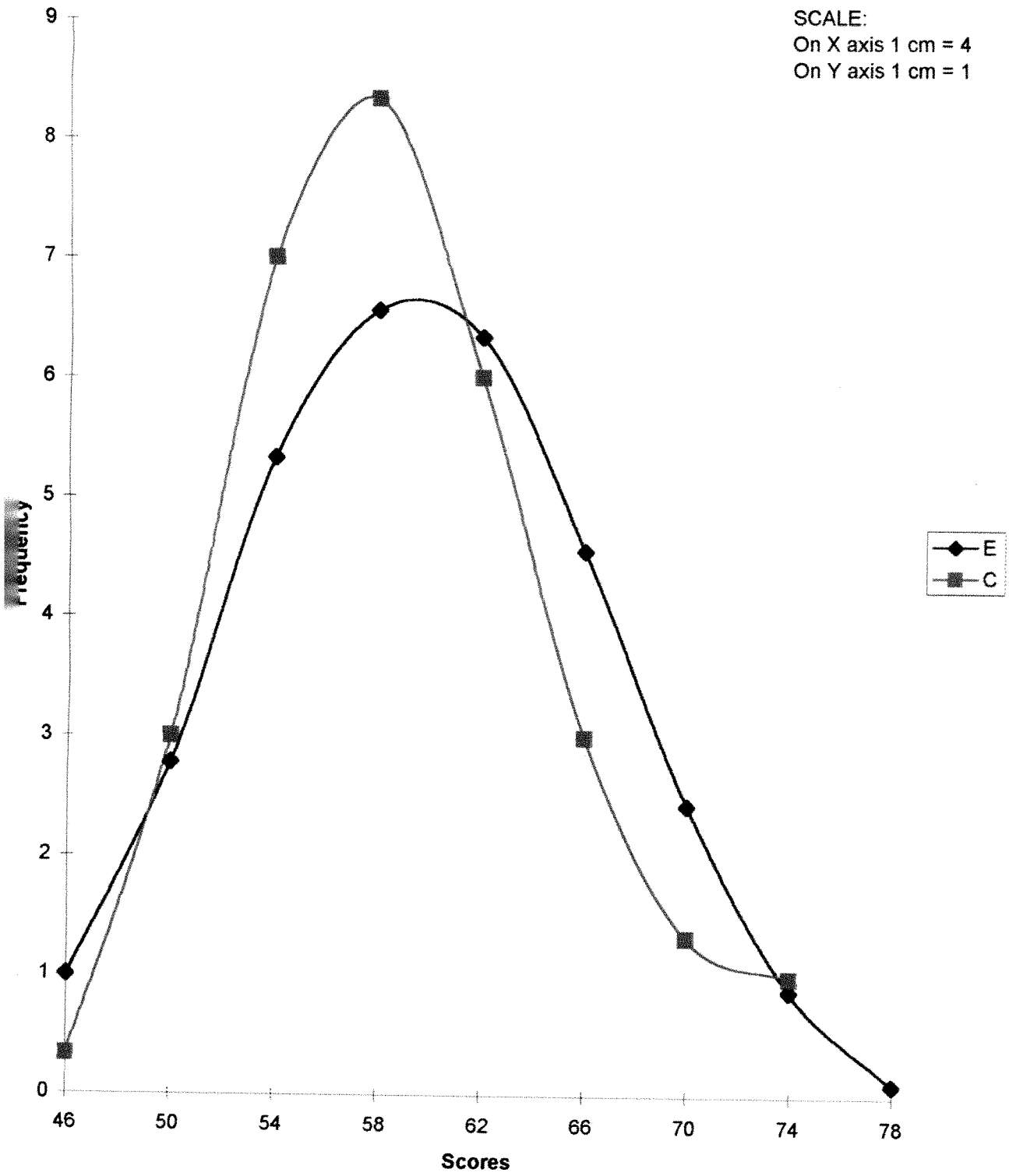
Findings:

Both the groups are comparable so far as their initial performance in practice teaching is concerned. It implied that both the groups are matching.i.e. Both the groups are homogeneous.

Performance of both the groups taken together is presented in figure 4.1

Fig. 4.1

Groupwise Mean Teaching Performance of the Student Teachers before the use of Model

Observations and Interpretation From the graph:

1.The curve of group C is positively skewed.

2.The curve of group E is approximating normality.

3.The spread of scores of group C is from 46 to 74. (S.D.=4.64)

4.The spread of scores of group E is from 46 to 78. (S.D.=4.99)

5.Mean of group C is 58.

Mean of group E is 59.

Finding: Both the groups are approximately equivalent.

H 4.2.1   There is no significant difference in the mean achievement of the student teachers from experimental and control groups after the implementation of primary stress reduction techniques. (SRM-SET I).

The data collected after observing first lesson of each student teacher from experimental and control groups after the implementation of primary stress reduction techniques. (SRM-SET I) were analyzed. Means, SDs, and t-value of the scores are calculated.

TABLE 4.5

MEANS, STANDARD DEVIATIONS AND T-VALUE OF BOTH THE

GROUPS ON IMPLEMENTATION OF SRM (SET I)

Sr. No.	Groups	No. of students	Means	S.D.	t-value	Remarks
1	Control	30	60.10	4.25	0.32	Not
2	Experimental	30	60.50	5.58		Significant
Average Mean			60.30			

Required t-value for the df =29is   2.76 at 0.01 level

And   2.04 at 0.05 level

Observations and Interpretations:

1.Average mean of both the groups is 60.30

2.Mean of control group is 60.10

Mean of experimental group is 60.50

3.The mean difference is 0.4.

4.The S.D.s are 4.25and 5.58 respectively for control and experimental groups.

In order to test whether these differences are significant or not i.e. to test H 4.2.1, t-test was used.

5. t-value is not significant at both the levels. Hence, H 4.2.1 is accepted.

Findings:

1.The performance of control and experimental groups in SRM (SET I) was almost equal.

2.It means that there is no effect of SRM (SET I) on experimental group.

3.As it was beginning of the experiment, students could not get adjusted themselves to the new situation.
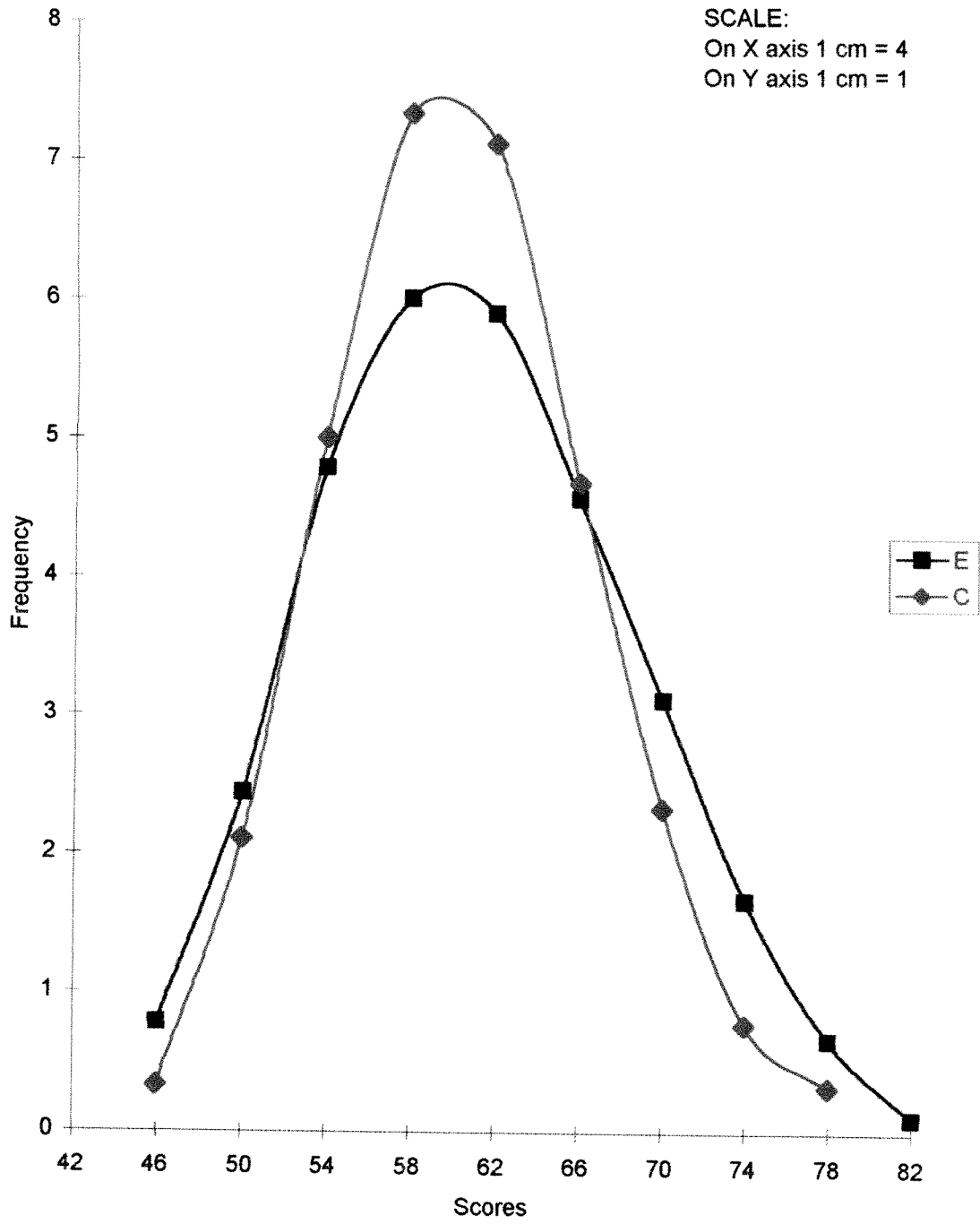
4.It seems that instructions could not lead them to the expected level of relief.

The performance of experimental and control groups after the use of SET I of SRM is shown graphically in figure 4.2

Fig. 4.2

Comparison of groups E and C after implementation of SET
I

Observations and Interpretation:

1.From the observations of the figure 4.2, the curve of control group is normal and peaked.

2.The curve of group E is also more or less normal with slight positive skewness.

3.The normality of curve of group C indicates that the equal numbers of scores are spread at low end and high end from the mid-point.

4.The positive skewness of the experimental group indicates that group has more low achievers than the high achievers.

5.The spread of scores of group C is from 46 to 78. (S.D.=4.25)

6.The spread of scores of group E is from 46 to 82. (S.D.=5.58)

5.Mean of group C is 62.

 Mean of group E is 62

Finding:

SET I of SRM has almost no effect on the experimental group.

H 4.2.2 There is no significant difference in the mean achievement of the student teachers from experimental and control groups after the implementation of stress reduction techniques in prone position (SRM-SET II).

The data collected after observing second lesson of each student teacher from experimental and control groups after the implementation of above technique. (SRM-SET II) were analyzed. Means, SDs, and t-value of the scores are calculated.

TABLE 4.6

MEANS, STANDARD DEVIATIONS AND T-VALUE OF BOTH THE GROUPS ON IMPLEMENTATION OF SRM (SET II)

Sr. No.	Groups	No. of students	Means	S.D.	t-value	Remarks
1	Control	30	60.43	4.43		Significant at 0.05 level
2	Experimental	30	63.17	5.96	2.05	
Average Mean			61.80			

Required t-value for the df =29 is 2.76 at 0.01 level

And 2.04 at 0.05 level

Observations and Interpretations:

1. Average mean of both the groups is 61.80

2. Mean of control group is 60.43 while that of experimental group is 60.50

3.The mean difference is 2.74 The mean performance of both the groups differed significantly.

4.The S.D.s are 4.25and 5.58 respectively for control and experimental groups.

In order to test whether these differences are significant or not i.e. to test H 4.2.2, t-test was used.

5. t-value is not significant at 0.01 level but significant at 0.05 level

6. Hence, H 4.2.2 is rejected.

On the basis of above observations the following findings could be drawn.

Findings:

1.SET II i.e. implementation of the SRM in prone position created significant difference in the mean performance of experimental group as compared to control group.

2.Prone position techniques were found more effective than PSRM.

3.Students followed the instructions and responded positively because in this technique some variations in the form of Saralhasta Bhujangasabna, Vakrahasta Bhujangasabna, Shalabhasana, Dhanurasana, Noukasana were used.

The performance of experimental and control groups after the use of SET II of SRM is shown in figure 4.3

Fig.4.3

Comparison of both the groups after implementation of
SRM (SET II)
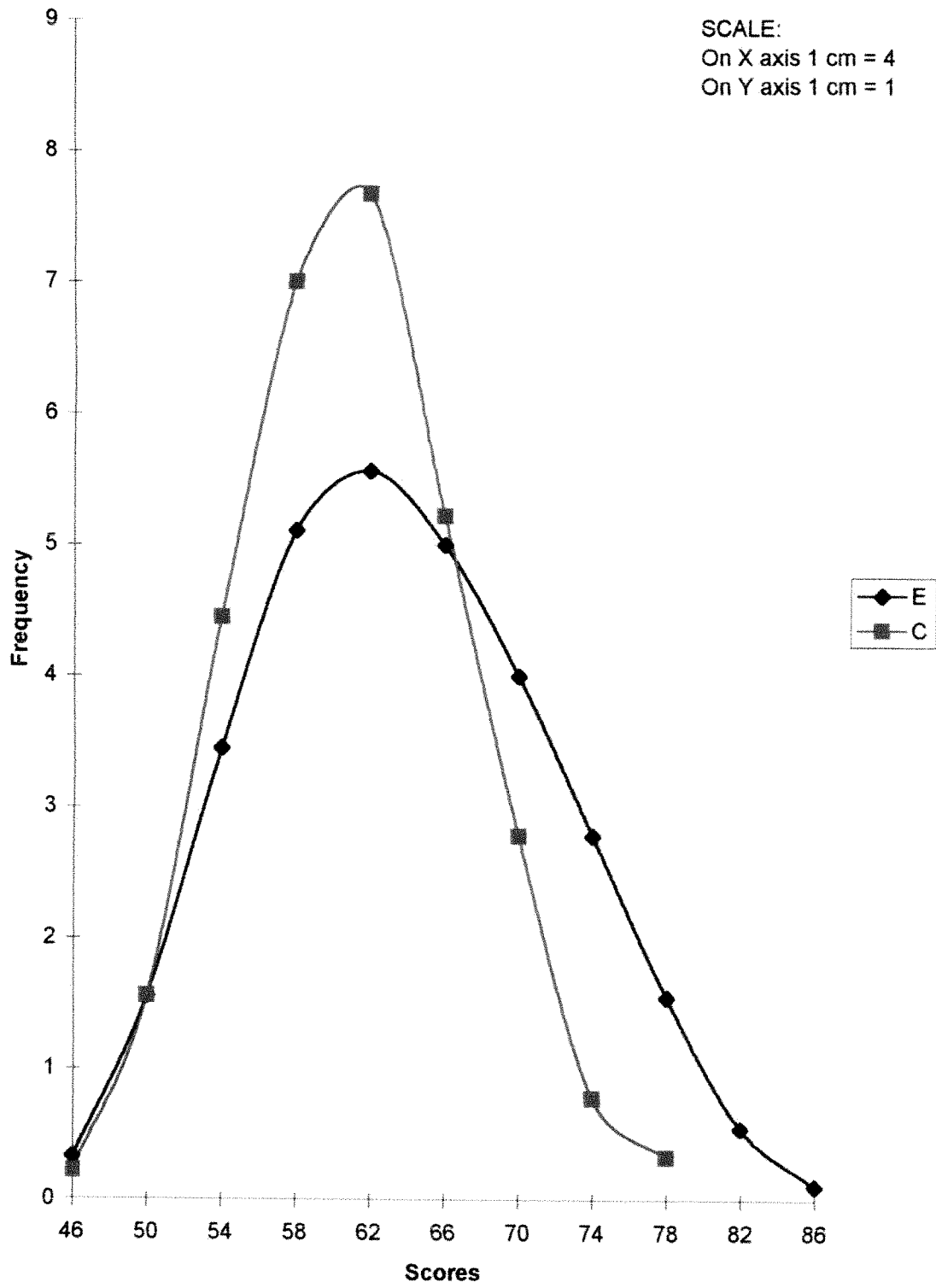
Observations and Interpretation:

1. The curve of experimental group is positively skewed.

2.The curve of group C is approximating normality but peaked.

3.The slight peakedness of curve C indicates the compact nature of the group.

4.The positive skewness of the experimental group indicates that group has more low achievers than the high achievers.

5.The range of scores of group C is 20 i.e. from 46 to 78. (S.D.=4.43)

6.The range of scores of group E is 29 i.e. from 46 to 86. (S.D.=5.96)

5.Mean of group C is 60.

 Mean of group E is 63

Findings:

1) The little difference in means of both the groups indicates very less effect of SET II of SRM on group E

2) SET II of SRM has increased the variability of the experimental group.

H 4.2.3   After the implementation of the stress reduction model in supine position (SRM- SET III), there is no significant difference in the mean achievement of the student teachers from experimental and control groups.

Means, S.D.s and t-value of experimental and control groups after the implementation of supine position techniques (SRM-SET III) are given in table 4.7

TABLE 4.7

MEANS, STANDARD DEVIATIONS AND T-VALUE OF BOTH THE

GROUPS ON IMPLEMENTATION OF SRM (SET III)

Sr. No.	Groups	No. of students	Means	S.D.	t-value	Remarks
1	Control	30	61.63	4.43		Significant
2	Experimental	30	65.83	5.95	3.20	at 0.01 level
Average Mean			63.73			

Required t-value for the df =29 is   2.76 at 0.01 level

And   2.04 at 0.05 level

Observations and Interpretations:

1.Means of control group and experimental group are 61.63 and 65.83 respectively.

2.Average mean is 63.73

3.The mean difference is 4.20 The mean performance of both the groups differed significantly.

4.The S.D.s are 4.43 and 5.95 respectively for control and experimental groups.

In order to find out the significance of the difference between the means after implementation of SET III of SRM, t-test was used.

5. t-value is significant at 0.01 level.

6. It was in favour of SET III of SRM

7.Hence, H 4.2.3 is rejected.

On the basis of above observations the following findings could be drawn.

Findings:

1.SET III i.e. implementation of the SRM in supine position created significant difference in the mean performance of experimental group student-teachers as compared to control group.

2.In first two techniques participant has to stand so they do not get compete relaxation, perhaps they may have tension of balancing.

3.In this technique, they get complete relaxation as they lie on their backs.

4.Uttanpadasan, Viparit karani, Sarvangasana, Halasana and Pavanmuktasana give complete relaxation to a body.

The performance of experimental and control groups after the use of SET III of SRM is shown in figure 4.4

Fig. 4.4

Comparison of achievement in E and C groups after implementation of SRM (SET III)

SCALE:
On X axis 1 cm = 4
On Y axis 1 cm = 1

Frequency

Scores
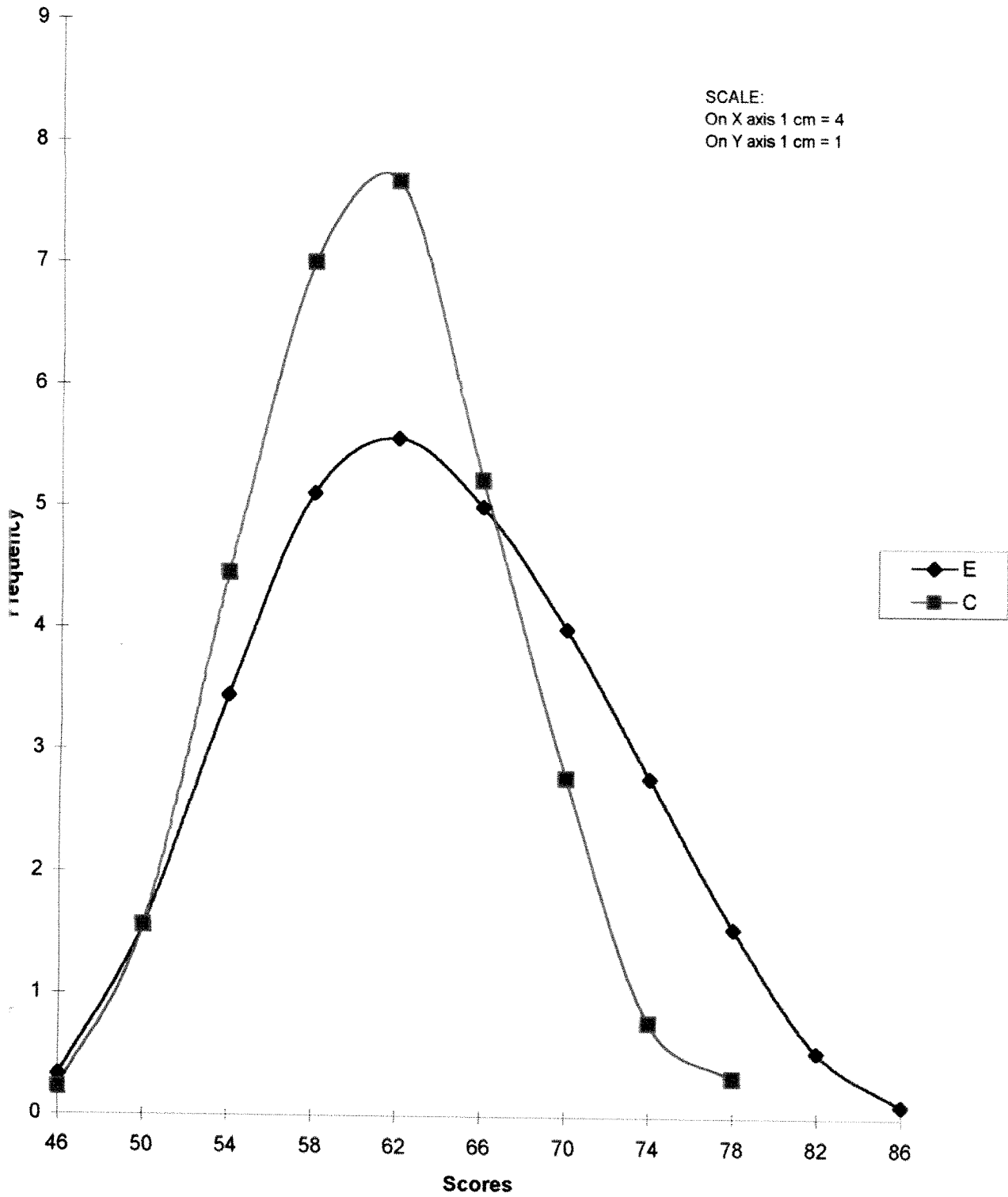
Observations and Interpretation from graph:

1. The curve of experimental group is approximating normality but slight negatively skewed.

2. The curve of group C is also normal but peaked indicating homogeneous group.

3. The normality of curves of both the groups indicates that the equal numbers of scores are spread at low end and high end from the mid-point.

4. The range of both the groups is changed.

The scores of group E are spread from 46 to 86. (S.D.=5.95)

The scores of group C are spread from 46 to 78. (S.D.=4.43)

5. The spread of group C is less as compared to group E.

6. Mean of group C is 62.

Mean of group E is 66.

Finding:

1) SET III has influenced more on experimental group student teachers. The difference in means supports this statement.

H4.2.4   There is no significant difference in the mean achievement of the student teachers from experimental and control groups after the implementation of stress reduction techniques in sitting position. (SRM-SET IV).

The data collected after observing fourth lesson of each student teacher from experimental and control groups after the implementation of above technique (SRM-SET IV) were analyzed. Means, SDs, and t-value of the scores are calculated.

TABLE 4.8

MEANS, STANDARD DEVIATIONS AND T-VALUE OF BOTH THE GROUPS ON

IMPLEMENTATION OF SRM (SET IV)

Sr. No.	Groups	No. of students	Means	S.D.	t-value	Remarks
1	Control	30	62.83	4.47	5.74	Significant at 0.01 level
2	Experimental	30	70.20	5.65		
Average Mean			66.52			

Required t-value for the df =29 is   2.76 at 0.01 level

And   2.04 at 0.05 level

Observations and Interpretations:

1.Means of control group and experimental group are 62.83 and 70.20 respectively.

2.Average mean is 66.52

3.The mean difference is 7.37 There is considerable variation in the mean performance of both the groups after implementation of set IV of SRM.

4.Standard deviations of control and experimental groups are 4.47 and 5.65

respectively.

In order to find out the significance of the difference between the means after implementation of Set IV of SRM, t-test was used.

5. t-value is significant at 0.01 level.

6. It was in favour of set IV of SRM.

7.Hence, H 4.2.4 is not acceptable.

On the basis of above observations the following findings could be drawn.

Findings:

1.Set IV i.e. implementation of the SRM in sitting position created significant difference in the mean performance of experimental group as compared to control group.

2.As it is a common practice to sit, these steps might have given more relaxation.

3.Student teachers got used to stress reduction techniques hence they responded positively.

4.Students followed the instructions and responded positively because in this technique some variations in the form of Swastikasana, Padmasana(baddha,utthit), Parvatasana, Sharangata Mudra were used.

The performance of experimental and control groups after the use of SET IV of SRM is shown in figure 4.5

Fig. 4.5

Comparison of groups E and C after implementation of
SRM (SET IV)
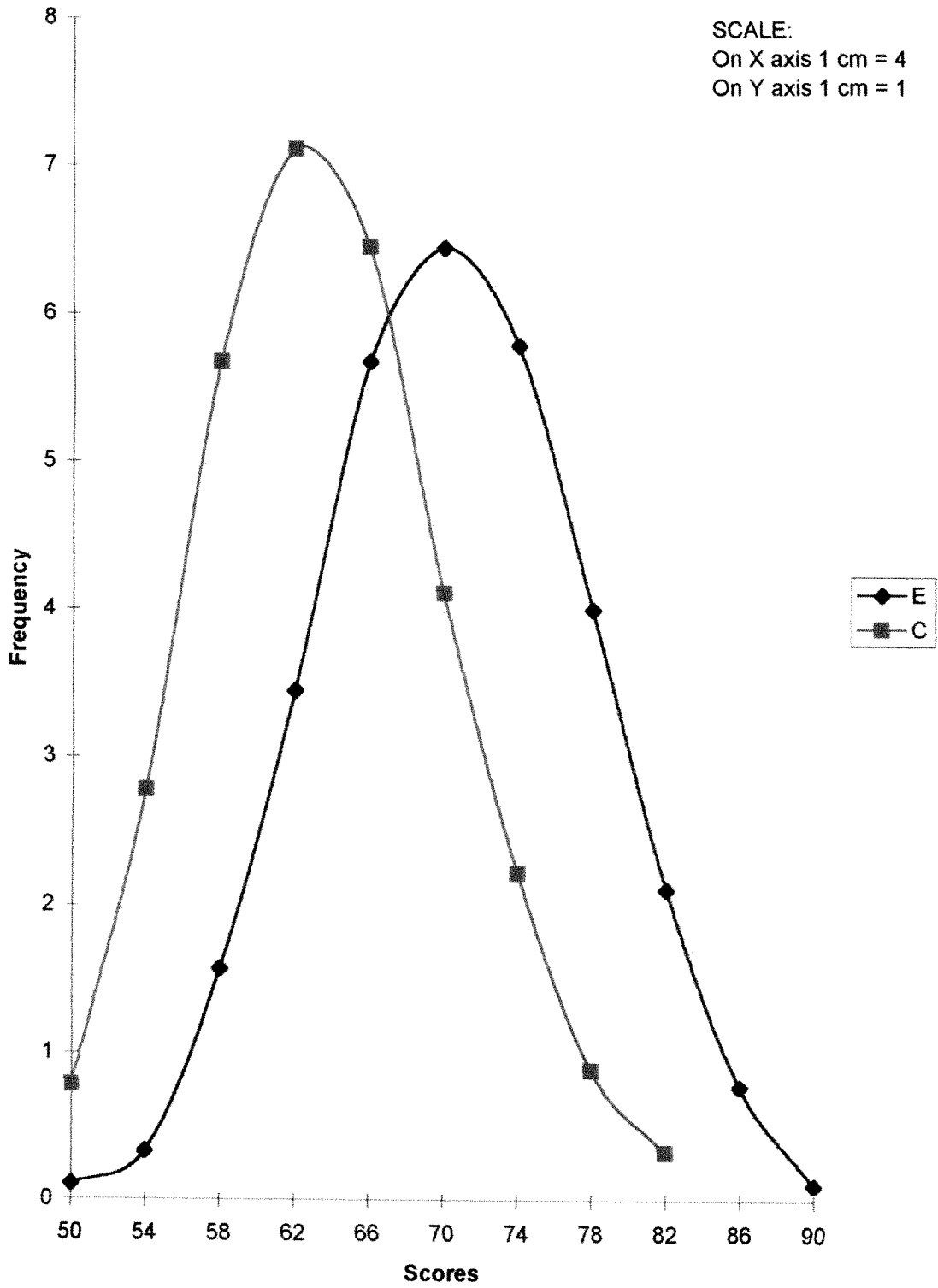
Observations and Interpretation from graph:

1. Both the curves are normal with different means.

2. Mean of group C is 66.

3. Mean of group E is 70

4. The normality of curves of both the groups indicates that the equal numbers of scores are spread at low end and high end from the mid-point.

5. The scores of group E are spread from 50 to 90. (S.D.=5.65)

The scores of group C are spread from 50 to 82. (S.D.=4.47)

6. The range at the upper end has changed considerably.

7. There is less difference between the peaks of both the groups.

Findings:

1. The group E has become more compact and homogeneous.

2. SET IV has influenced the student teachers from the experimental group. The difference in means supports this statement.

H 4.2.5 After the implementation of the stress reduction techniques in moving focus relaxation (SRM –SET V), there is no significant difference in the mean achievement of the student teachers from experimental and control groups.

Means, S.D.s and t-value of experimental and control groups after the implementation of moving focus relaxation (SRM-SET V) are given in table 4.9

TABLE 4. 9

MEANS, STANDARD DEVIATIONS AND T-VALUE OF BOTH THE GROUPS ON IMPLEMENTATION OF SRM (SET V)

Sr. No.	Groups	No. of students	Means	S.D.	t-value	Remarks
1	Control	30	64.00	4.39		Significant
2	Experimental	30	75.00	5.62	8.65	at 0.01 level
Average Mean			69.50			

Required t-value for the df =29 is   2.76 at 0.01 level

And   2.04 at 0.05 level

Observations and Interpretations:

1.Average mean of both the groups is 69.50

2.Mean of control group is 64 while that of experimental group is 75

3.The mean difference is 11.The mean performance of both the groups differed significantly.

4.The S.D.s are 4.39 and 5.62 respectively for control and experimental groups.

In order to test whether these differences are significant or not i.e. to test H 4.2.5, t-test was used.

5. t-value is significant at 0.01 level .

6.It was in favour of SET V of SRM.

7. Hence, H 4.2.5 is rejected.

On the basis of above observations the following findings could be drawn.

Findings:

1.Moving focus relaxation i.e. SET V of SRM create significant difference in the mean performance of experimental group as compared to control group.

2. In this technique all the body movements are avoided and all the limbs are totally relaxed.
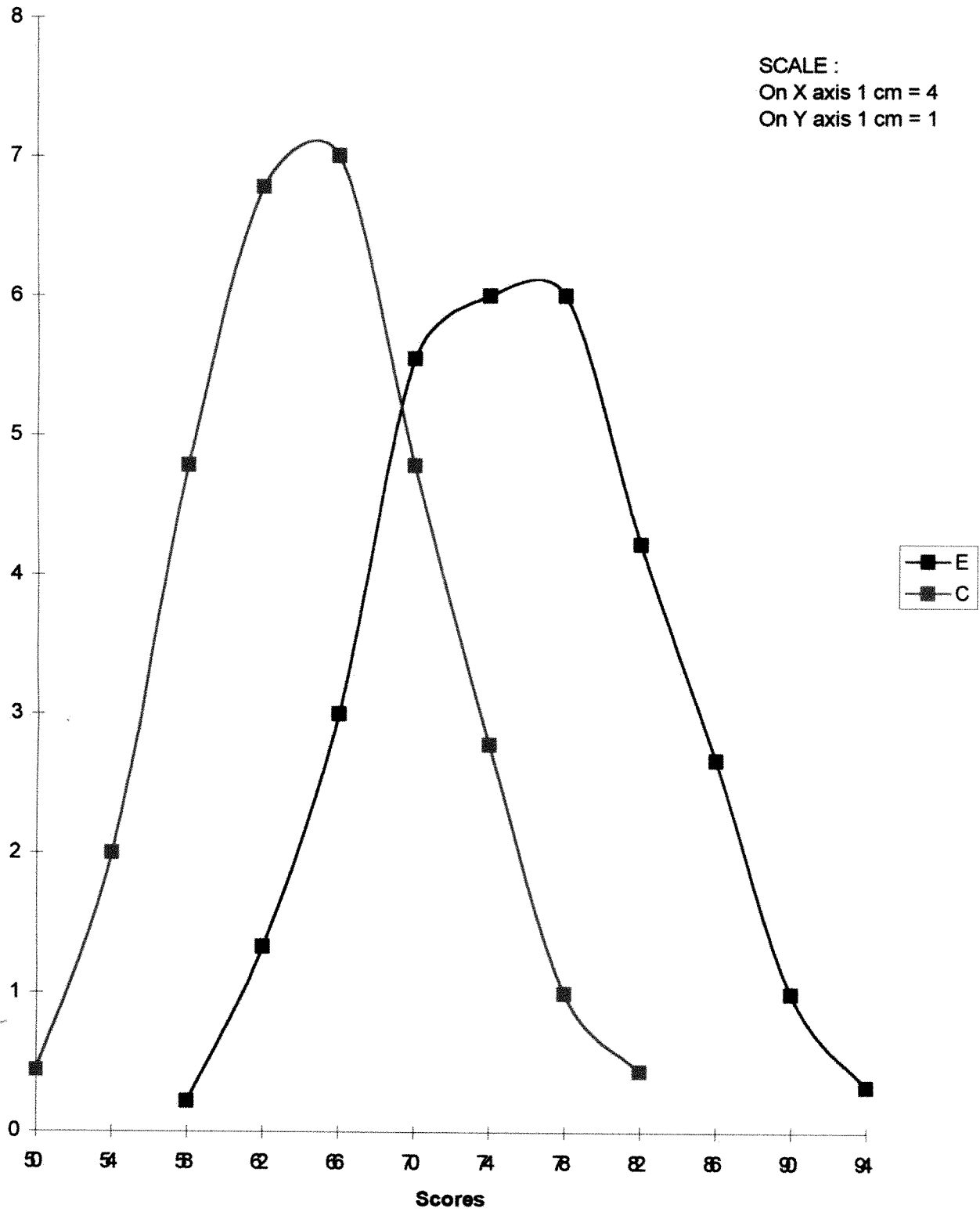
3.Students attention is towards the instructions of teacher.

4.They are completely under the control of instructions of teacher.

The performance of experimental and control groups after the use of SET V of SRM is shown in figure 4.6

Fig. 4.6

Comparison of groups E and C after implementation of SRM (SET V)

SCALE :
On X axis 1 cm = 4
On Y axis 1 cm = 1

Scores

Observations and Interpretation from graph:

1.The curve of group C is normal with slight peakedness and slight positively skewness.

2.The positive skewness of the control group indicates that group has more low achievers than the high achievers.

3.   The curve of group E is normal but slightly flattened.

4.   The spread of the scores is from 50 to 82 (S. D. = 4.39) for group C indicating improved performance only at the upper end.

5.   The spread of the scores is from 58 to 94 (S. D. =5.62) for group E indicating improved performance at both the ends.

6. Mean of group C is 64.

3. Mean of group E is 75.

Findings:

SET V has influenced the student teachers from the experimental group. The difference in means supports this statement.

H 4.2.6   There is no significant difference in the mean achievement of male and female student teachers in the experimental group after the implementation of primary stress reduction techniques. (SRM-SET I).

The data collected after observing first lesson of each student teacher from experimental group after the implementation of primary stress reduction techniques. (SRM-SET I) were analyzed. Means, SDs, and t-value of the scores are calculated.

TABLE 4.10

MEANS, STANDARD DEVIATIONS AND T-VALUE OF MALE AND FEMALE STUDENT TEACHERS IN THE EXPERIMENTAL GROUP ON IMPLEMENTATION OF SRM (SET I)

Sr. No.	Groups	No. of students	Means	S.D.	t-value	Remarks
1	Male	15	60.40	5.34	0.10	Not
2	Female	15	60.60	6.19		Significant
Average Mean			60.30			

Required t-value for the df =14 is   2.98 at 0.01 level

And   2.14 at 0.05 level

Observations and Interpretations:

1.Means of male and female student teachers in the first lesson are 60.40 and 60.60 respectively

2.Average mean is 60.50

3.There is negligible variation in the mean performance of male and female student teachers.

4.Standard variations of male and female student teachers are 5.34 and 6.19 respectively.

5. t value is not significant at both the levels.

6. Hence hypothesis 4.2.6 is accepted.
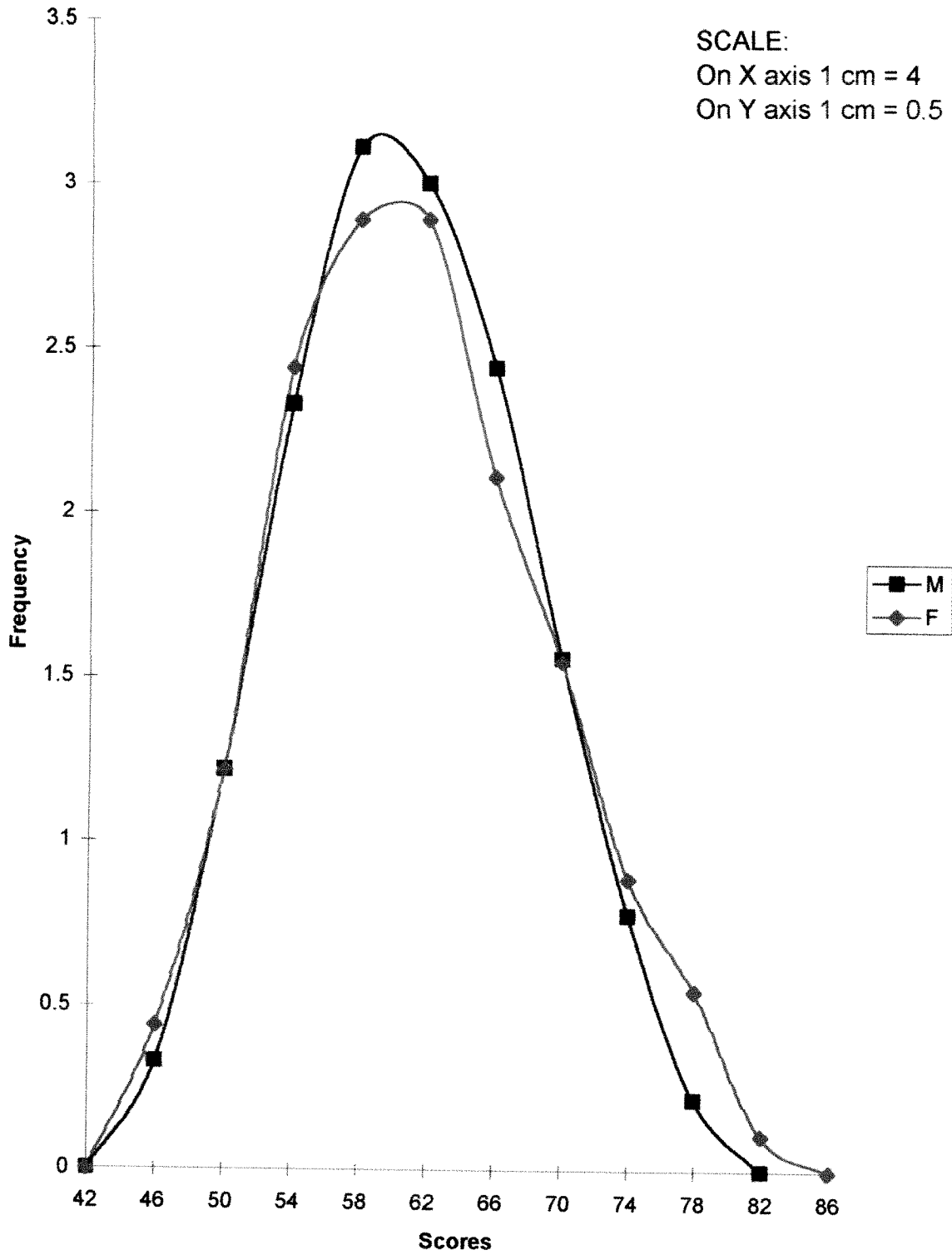
Findings: -

1. Sex makes no difference in tension reduction.

2. Male and female student teachers equally responded to the stress reduction techniques.

3. Female student teachers demonstrate similar patterns of behaviour in the teacher education programme.

The graphical representation of the performance of male and female student teachers after implementation of SET I of SRM is given in figure 4.7

For the sake of convenience group of male student teachers is called group M and group of female student teachers is called group F, here onwards.

Fig. 4.7

Comparison of M and F student teachers in group E after implementation of SET I

SCALE:
On X axis 1 cm = 4
On Y axis 1 cm = 0.5

Frequency

Scores

M
F

Observations and Interpretation from the graph:

1. The curve of group M is more peaked than group F indicating compact nature of the group M.

2. The curve of group F is approximately normal with slight positive skewness.

3. The normality of the curve M indicates that equal numbers of scores are spread at low end and high end from the mid-point.

4. The positive skewness of the group F indicates that the group has more low achievers than the high achievers.

5. The scores of group M are spread from 52 to 71.

6. The scores of group F are spread from 52 to 75.

7. The means of both the groups are almost the same.

H4.2.7 There is no significant difference in the mean achievement of male and female student teachers in the experimental group after the implementation of stress reduction techniques in prone position (SRM-SET II).

The data collected after observing second lesson of each student teacher from experimental group after the implementation of stress reduction techniques in prone position. (SRM-SET II) were analyzed. Means, SDs, and t-value of the scores are calculated.

TABLE 4.11

MEANS, STANDARD DEVIATIONS AND T-VALUE OF MALE AND FEMALE STUDENT TEACHERS IN THE EXPERIMENTAL GROUP ON IMPLEMENTATION OF SRM (SET II)

Sr. No.	Groups	No. of students	Means	S.D.	t-value	Remarks
1	Male	15	63.07	6.54	0.03	Not
2	Female	15	63.00	5.78		Significant
Average Mean			63.04			

Required t-value for the df =14 is   2.98 at 0.01 level

And   2.14 at 0.05 level

Observations and Interpretations:

1. Means of male and female student teachers in the second lesson are 63.07 and 63.00 respectively

2. Average mean is 63.04

3. There is negligible variation in the mean performance of male and female student teachers.

4. Standard variations of male and female student teachers are 6.54 and 5.78 respectively.

5.t value is not significant at both the levels.

6.Hence hypothesis 4.2.7 is accepted.

Findings: -

1.Sex makes no difference in tension reduction.

2.Male and female student teachers equally responded to the stress reduction techniques.

3.Female student teachers demonstrate similar patterns of behaviour in the teacher education programme.

The graphical representation of the performance of male and female student teachers after implementation of SET II of SRM is given in figure 4.8

Fig. 4.8

Comparison of Male and Female student teachres in group
E after implementation of SET II
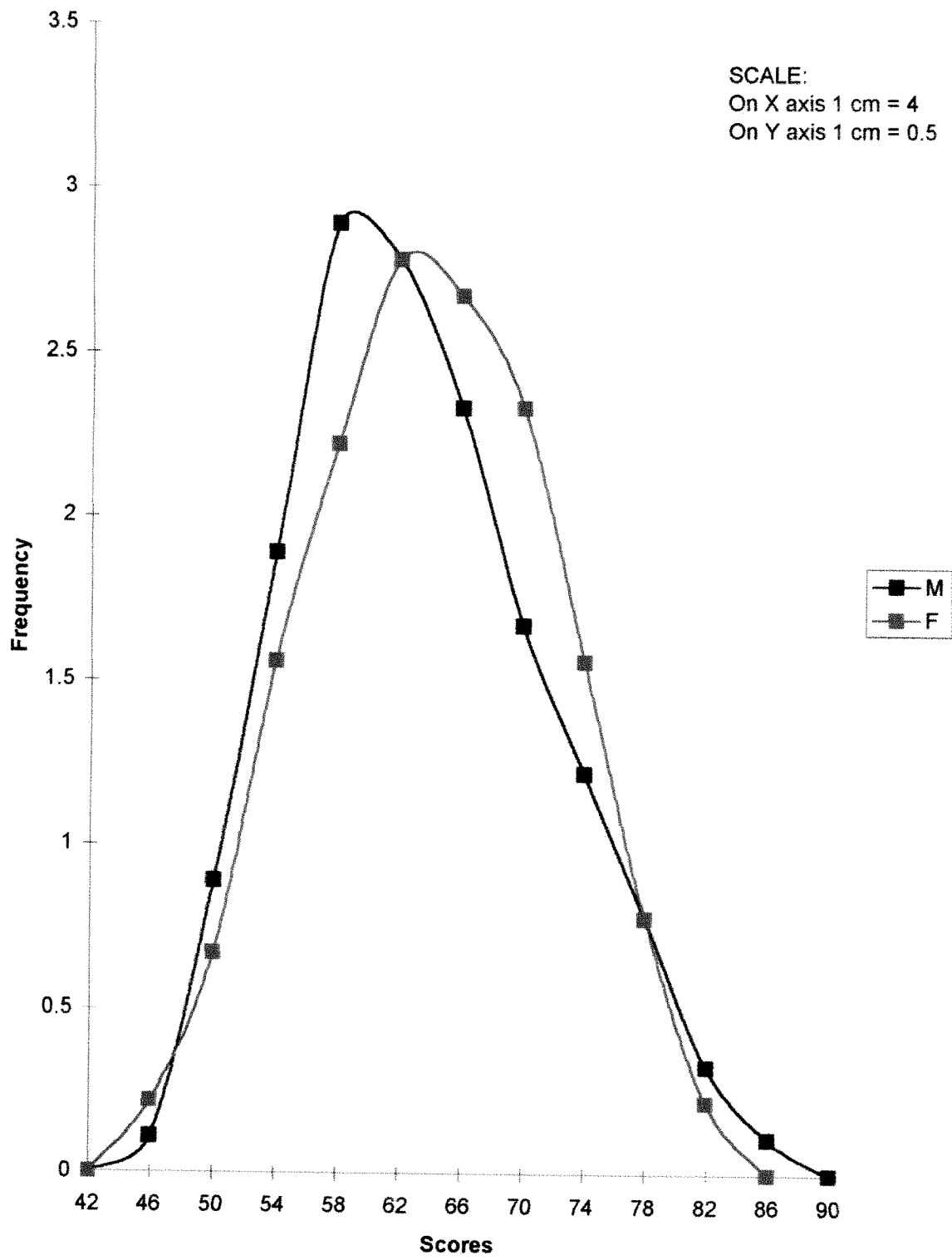
SCALE:
On X axis 1 cm = 4
On Y axis 1 cm = 0.5

Observations and Interpretation from the graph:

1.The curve of group M is normal with slight positive skewness.

2.The curve of group F is also normal with slight negative skewness.

3. The slight positive skewness of the group M indicates that the group has more low achievers than the high achievers

4.The slight negative skewness of the group F indicates more high achievers than the low achievers.

5.The scores of group M are spread from 52 to 80.

6.The scores of group F are spread from 52 to 75.

7.The mean of group M is 62

8.The mean of group F is 66

H 4.2.8 There is no significant difference in the mean achievement of male and female student teachers in the experimental group after the implementation of stress reduction techniques in supine position (SRM-SET III).

The data collected after observing third lesson of each student teacher from experimental group after the implementation of stress reduction techniques in supine position. (SRM-SET III) were analyzed. Means, SDs, and t-value of the scores are calculated.

TABLE 4.12

MEANS, STANDARD DEVIATIONS AND T-VALUE OF MALE AND

FEMALE STUDENT TEACHERS IN THE EXPERIMENTAL GROUP

ON IMPLEMENTATION OF SRM (SET III)

Sr. No.	Groups	No. of students	Means	S.D.	t-value	Remarks
1	Male	15	63.40	3.11	0.38	Not Significant
2	Female	15	63.93	5.19		
	Average Mean		63.67			

Required t-value for the df =14 is   2.98 at 0.01 level

And   2.14 at 0.05 level

Observations and Interpretations:

1.Mean of male and female student teachers in the second lesson is 63.40

and 63.93 respectively.

2.Average mean is 63.67

3.There is negligible variation in the mean performance of male and female

student teachers.

4.Standard variations of male and female student teachers are 3.11 and 5.19

respectively.

6.t value is not significant at both the levels.

7.Hence hypothesis 4.2.8 is accepted.

Findings: -

1.Sex makes no difference in tension reduction.

2.Male and female student teachers equally responded to the stress reduction techniques.

3.Female student teachers demonstrate similar patterns of behaviour in the teacher education programme.

The graphical representation of the performance of male and female student teachers after implementation of SET III of SRM is given in figure 4.9

Fig. 4.9

Comparison of Male and Female student teachers in group E after implementation of SET III

SCALE:
On X axis 1 cm = 4
On Y axis 1 cm = 0.5
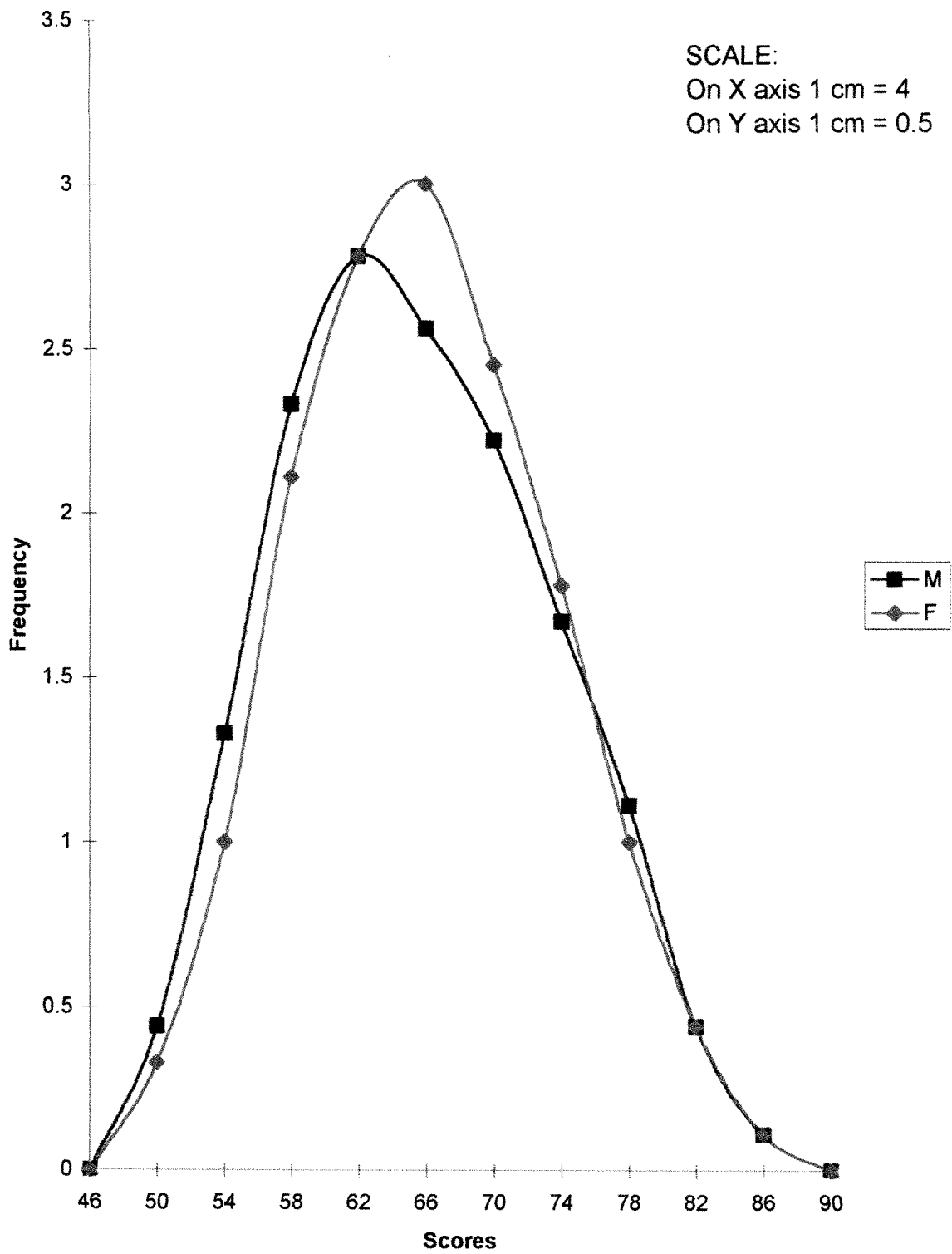
Observations and Interpretation from figure 4.9:

1.The curve of group F is reaching normal with slight negative skewness.

2.The negative skewness of the group F indicates more high achievers than the low achievers.

3.The curve of group M is normal with slight positive skewness.

4. The positive skewness of the group M indicates that the group has more low achievers than the high achievers.

5.The scores of group M are spread from 56 to 80.

6.The scores of group F are spread from 60 to 80.

7.The mean of group M is 66.

8.The mean of group F is 66.

H4.2.9 There is no significant difference in the mean achievement of male and female student teachers in the experimental group after the implementation of stress reduction techniques in sitting position (SRM-SET IV).

The data collected after observing fourth lesson of each student teacher from experimental group after the implementation of stress reduction techniques in sitting position. (SRM-SET IV) were analyzed. Means, SDs, and t-value of the scores are calculated.

TABLE 4.13

MEANS, STANDARD DEVIATIONS AND T-VALUE OF MALE AND

FEMALE STUDENT TEACHERS IN THE EXPERIMENTAL GROUP

ON IMPLEMENTATION OF SRM (SET IV)

Sr. No.	Groups	No. of students	Means	S.D.	t-value	Remarks
1	Male	15	70.07	5.44	0.13	Not Significant
2	Female	15	70.33	6.22		
	Average Mean		70.20			

Required t-value for the df =14 is   2.98 at 0.01 level

And   2.14 at 0.05 level

Observations and Interpretations:

1.Means of male and female student teachers in the second lesson are 70.07

and 70.33 respectively.

2.Average mean is 70.20

3.There is negligible variation in the mean performance of male and female

student teachers.

4.Standard variations of male and female student teachers are 5.44 and 6.22

respectively.

5.t value is not significant at both the levels.

6.Hence hypothesis 4.2.9 is accepted.

Findings:

1.Sex makes no difference in tension reduction.

2.Male and female student teachers equally responded to the stress reduction techniques.

3.Female student teachers demonstrate similar patterns of behaviour in the teacher education programme.

The graphical representation of the performance of male and female student teachers after implementation of SET IV of SRM is given in figure 4.10

Fig. 4.10

Comparison of Male and Female student teachers in group
E after SET IV
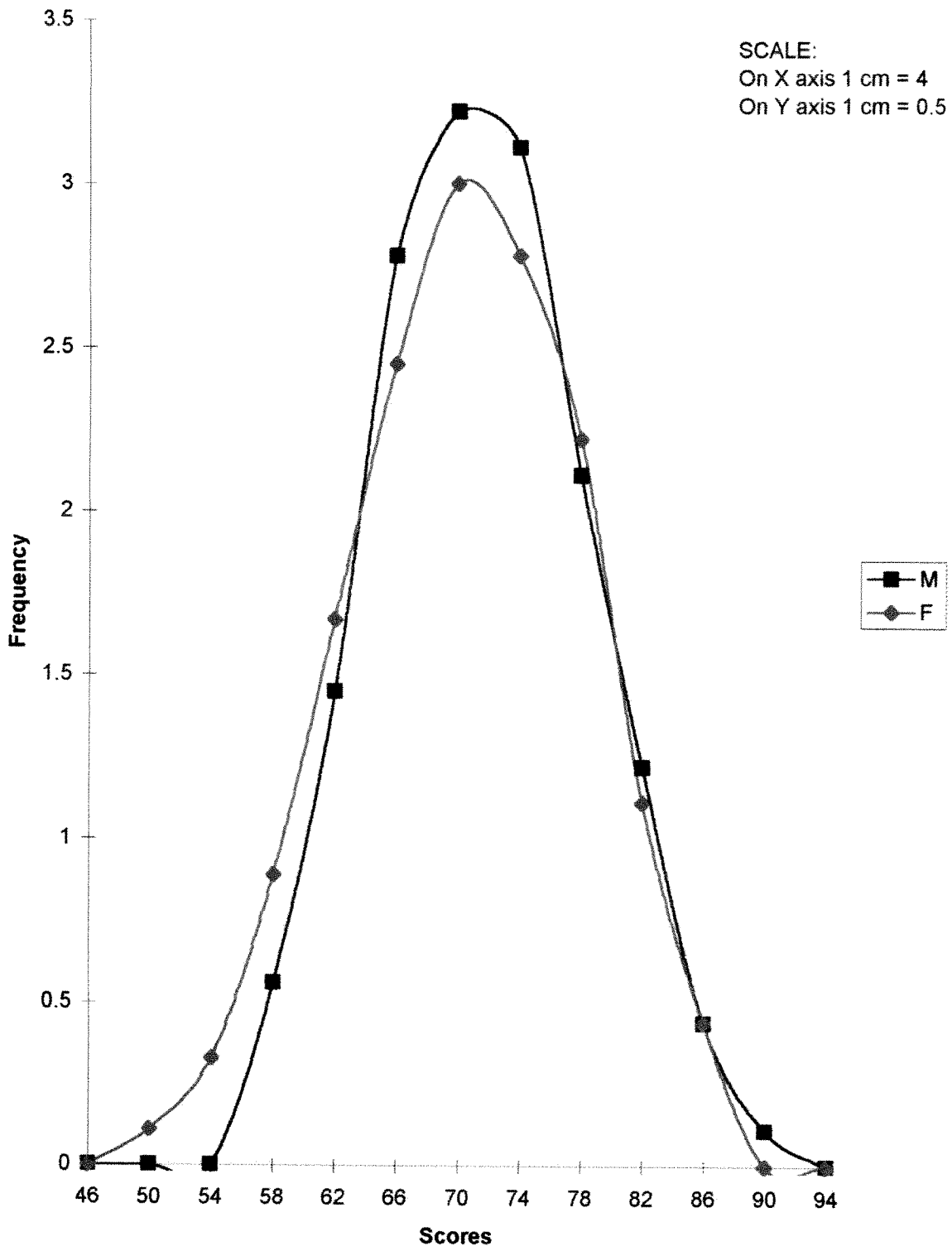
Observations and Interpretation from figure 4.10:

1.Both the groups are approaching normality but are highly peaked. The peaked nature indicates that both the groups are compact and homogeneous.

2.There is slight difference in the ranges of scores of both the groups.

F group ranges from 56 to 80 (S.D. = 6.22) while M group ranges from 64 to 84 (S.D. = 5.44).

3.The means are almost same for both the groups.

H 4.2.10 There is no significant different the mean achievement of male and female student teachers in the experimental group after the use of SRM (SET V).

The data collected after observing fifth lesson of each student teacher from experimental group after the implementation of primary stress reduction techniques. (SRM-SET V) were analyzed. Means, SDs, and t-value of the scores are calculated.

TABLE 4.14

MEANS, STANDARD DEVIATIONS AND T-VALUE OF MALE AND FEMALE STUDENT TEACHERS IN THE EXPERIMENTAL GROUP ON IMPLEMENTATION OF SRM (SET V)

Sr. No.	Groups	No. of students	Means	S.D.	t-value	Remarks
1	Male	15	74.67	5.75	0.15	Not
2	Female	15	75.33	5.86		Significant
Average Mean			75.00			

Required t-value for the df =14 is   2.98 at 0.01 level

And   2.14 at 0.05 level

Observations and Interpretations:

1. Means of male and female student teachers in the fifth practice lesson are 74.67 and 75.33 respectively.

2. Average mean is 75.00

3. There is slight variation in the mean performance of male and female student teachers.

4. Standard deviations of male and female student teachers are 5.75 and 5.86 respectively.

5. t value is not significant at both the levels hence both the groups (i.e. male and female) in an experimental group are equivalent.

6.Hence hypothesis 4.2.7 is accepted.

   Findings:

1. Sex makes no difference in tension reduction.

2. Male and female student teachers equally responded to the stress reduction techniques.

3. Female student teachers demonstrate similar patterns of behaviour in the teacher education programme.

The graphical representation of the performance of male and female student teachers after implementation of SET V of SRM is given in figure 4.11

Fig.4.11

Comparison of Male and Female student teachers in group E after SET V

SCALE:
On X axis 1 cm = 4
On Y axis 1 cm =
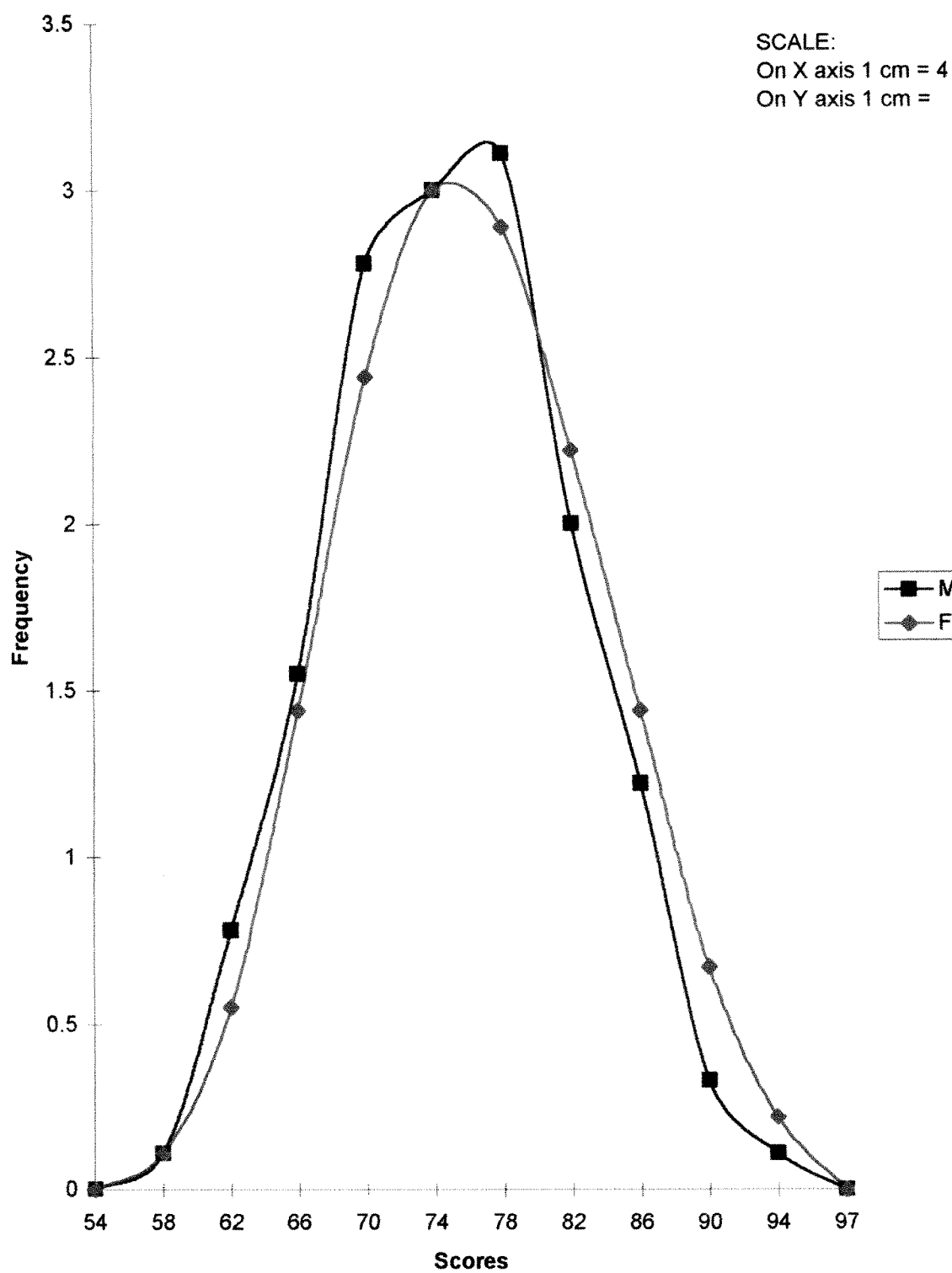
Observations and Interpretation from the figure 4.11:

1. The group F is normal.

2. The normality of the curve F indicates that equal numbers of cores are spread at low end and high end from the mid-point.

3. Group M is bimodal. The bimodality of the curve M indicates the heterogeneous group. The group M represents two distinct groups of low and high ability student teachers in it.

4. The ranges of scores of both the groups are same.

   Group ranges from 64 to 87 (S.D. = 5.75) while group F also ranges from 64 to 87 (S.D. = 5.86).

5. The means are almost same for both the groups.

   Mean of group M is 74 while that of group F is 75.

Student teachers attitude towards SRM:

In order to know the attitude of student teachers on implementing SRM in different situations, their willingness and reactions against SRM were gathered by using attitude scale (Appendix L). The number of student teachers involved in the experimental group were 30.The hypothesis related to this section is stated below.

H1.2.11 Student teachers are willing to implement SRM.

The data collected were analyzed by using percentage.

TABLE 4.15

ANALYSIS OF STUDENT TEACHERS' ATTITUDE TOWARDS SRM

Sr. No.	Item	Frequency	
		Positive	Negative
1	Utility	24(80)	06(20)
2	Steps are easily followed	15(50)	15(50)
3	Time consuming model	17(56.67)	13(44.33)
4	Difficult to implement	15(50)	15(50)
5	Sufficiently informed about model	25(83.33)	05(16.67)
6	Needs basic training	28(93.33)	02(6.67)
7	Can reduce stress	23(76.67)	07(23.33)
8	Concentration can be increased	20(66.67)	10(33.33)
9	Reduction of anxiety	17(56.67)	13(44.33)
10	Easy to use	14(46.67)	16(53.33)
11	Development of teaching competencies	21(70)	09(30)
12	Technical problems to implement it	13(44.33)	17(56.67)
13	Useful at secondary level	30(100)	-
14	Useful for different occupations	30(100)	-
15	Job satisfaction	23(76.67)	07(23.33)

(Numbers in the brackets indicate percentage.)

Observation and interpretation:

1. Item one i.e. utility of the model is accepted by 80% of the student teachers while 20 % of student teachers are doubtful about the it.

2. Half of the student teachers think that the steps of the model are easily followed. The percentage came to be 50.

3. More than 56 % student teachers say that it is a time consuming model.

4. About implementation if the model, the response is equally distributed.

5. The information given about the model is sufficient and adequate, say 83% of student teachers while 17% require some more information.

6. Almost all the student teachers think that for implementation of this model, a basic training is required.

7. This model is useful in reducing stress because 77% of the student teachers agree with this statement.

8. This model is helpful in improving concentration. Positive response is given by 67% of student teachers.

9. This model is useful in anxiety reduction; 57% of the student teachers gave positive response while others could not experience anxiety reduction.

10. SRM is not easy to use on others is the response given by more than 50% student teachers.

11. Improvement is seen in teaching competencies for 70 % of student teachers.

12. Technically this model is not possible is the response of 44 % of student teachers.

13. This model is really useful at secondary level. All the participants agree with this statement.

14. This model can also be useful in other occupations. 100 % response is in favour of this item.

15. Job satisfaction is observed in 76 % of the respondents.