CHAPTER – IV

STATISTICAL ANALYSIS, RESULTS & INTERPRETATION

In the preceding chapter the research methodology was presented indicapting how the data was collected. In the present chapter, the investigator has organised & analysed the data.

The means & SD for each cells for the nine experiments, namely depression, coping behaviour, social skills with six dimensions viz. presentation skill, interaction skill, conversation skill, social integration, attitude towards other children & attitude towards adults were worked out separately.

The data was subjected to analysis of variance. The analysis was done for each of the nine experiments separately. To test the significance of mean difference of significant main effects & interaction effects the "Newmen Kuels test" & t-test was used for multiple comparisons. The significant effect are illustrate diagrammatically.

Experiment No. 1

1. Problem : Depression (Proximity x Gender x Age)

2. H_OS

D_1 - Grandparental proximity will not affect depression

D_2 - Gender will not affect depression

D_3 - Age will not affect depression

D_4 - Grandparental proximity x gender will not exists in the set

D_5 - Grandparental proximity x age will not exists in the set

D_6 - Gender x age will not exists in the set

D_7 - Grandparental proximity x gender x age will not exist in the set

Table No. 4.1

3. ANOVA Summary

Source	Ss	df	MS	F
A-Levels of proximity	128.2	2	64.12	2.58**
B – Gender	-067	1	.067	.003
C – Age	1278.8	1	1278.8	51.45**
A x B	13.30	2	6.65	268
A x C	51.45	2	25.72	1.03
B x C	.267	1	.267	.011
A x B x C	4.80	2	2.40	.097
Error	5666.20	228	124.8	
Total	7143.1	239	29.8	

Note ** P< 0.01

* P< 0.05

4 Details of Significant results

The retained H_OS (NO: D – 2, 4, 5, 6, 7) show that main effects Gender, bivariate interaction (A x B, A x C, B x C) and trivariate interaction (A x B x C) are not significant. The rejected HOS may be described as below:

H_OS No: D_1 – (Grandparental proximity) … Rejected($P<0.01$) Grandparental proximity affects depression.

H_OS No.: D_3– (Age) … Rejected ($P<0.01$)

Age affects depression.

5. Summary

Depression is associated with grandparental proximity and age

Table No. 4.2

Research Paradigm

Levels (A)	**Low**		**Medium**		**High**		**Σ**
Gender (B)	**B**	**G**	**B**	**G**	**B**	**G**	
Age (C) **Early Adolescent**	185	168	203	208	149	167	1080
Pre adolescent	109	101	86	92	69	69	526
Σ	294	269	289	300	218	236	1606

Table No. 4.3

Showing Mean & SD of each variable

Levels		**a_1**		**a_2**		**a_3**	
Levels of proximity (A)	**Mean**	7.03		7.36		5.67	
	SD	5.58		5.86		4.81	
Gender (B)		**b_1**	**b_2**	**b_1**	**b_2**	**b_1**	**b_2**
	Mean	7.35	6.72	7.25	7.50	5.45	5.90
	SD	6.37	4.72	6.07	5.72	4.34	5.28
Age (C)		**c_1**	**c_2**	**c_1**	**c_2**	**c_1**	**c_2**
	Mean	8.82	5.25	10.27	4.45	7.90	3.45
	SD	6.54	3.73	6.56	3.05	5.73	1.99

A = Level of Grandparental proximity

a_1 = Low level Grandparental proximity

a_2 = Medium level Grandparental proximity

a_3 = High level Grandparental proximity

B = Gender

b_1 = Boys

b_2 = Girls

C = Age

c_1 = Early adolescents

c_2 = Pre Adolescents

Multiple comparison of mean for the main effect of grandparental proximity Newmen's Kuel's is used

Table No. 4.4

Comparison of depression on three levels of grandparental proximity

Mean	Ordered Mean		
	5.68	7.04	7.36
a_3 5.68	-	-	-
a_1 7.04	-	-	-
a_2 7.36	-	-	-

Perusal of the above table (4.4) reveals that there is no significant difference between the different levels of grandparental proximity with respect to depression. But on the basis of mean values. It can be inferred that adolescent who have high level of grandparental proximity were less depressed is comparison to low and medium level of grandparental proximity protect the adolescent from depression as shown in the graph No. 1

The main effect of Age is significant at .01 level of confidence, for mean comparison t-test is used.

Table No. 4.5

Comparison of depression between early adolescent & pre adolescents of different levels of proximity

Levels of proximity	Age	No	Mean	SD	t
Low	**Early adol.**	40	8.82	6.54	3.00**
	Pre. adol.	40	5.25	3.73	
Medium	**Early adol.**	40	10.27	6.56	5.09**
	Pre. adol.	40	4.45	3.05	
High	**Early adol.**	40	7.90	5.73	4.64**
	Pre. adol.	40	3.45	1.99	

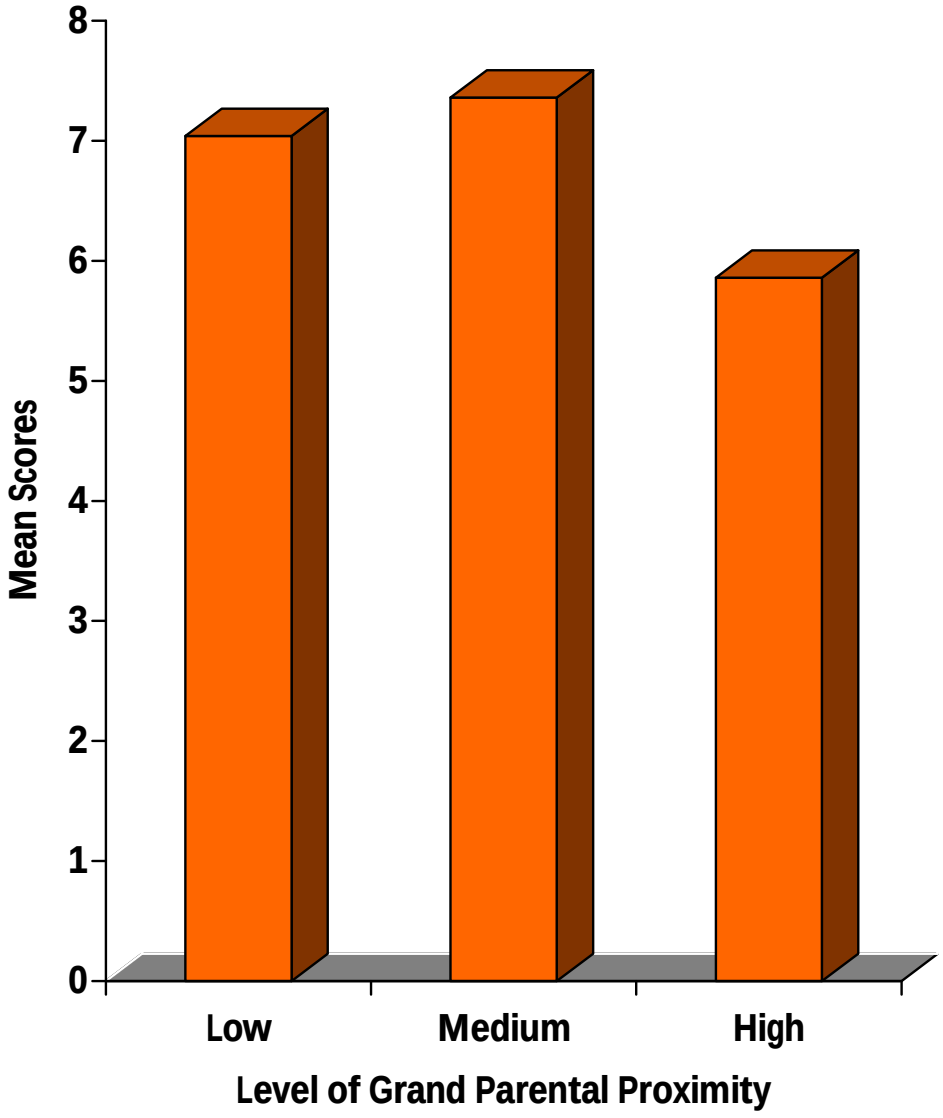
Note **P<0.01

* P<0.05

t-test reveals that on the different levels of grandparental proximity there are significant difference in the depression of pre & early adolescents. On all three levels of grandparental proximity pre adolescents are less depressive than early adolescents as depicted in graph No. 2

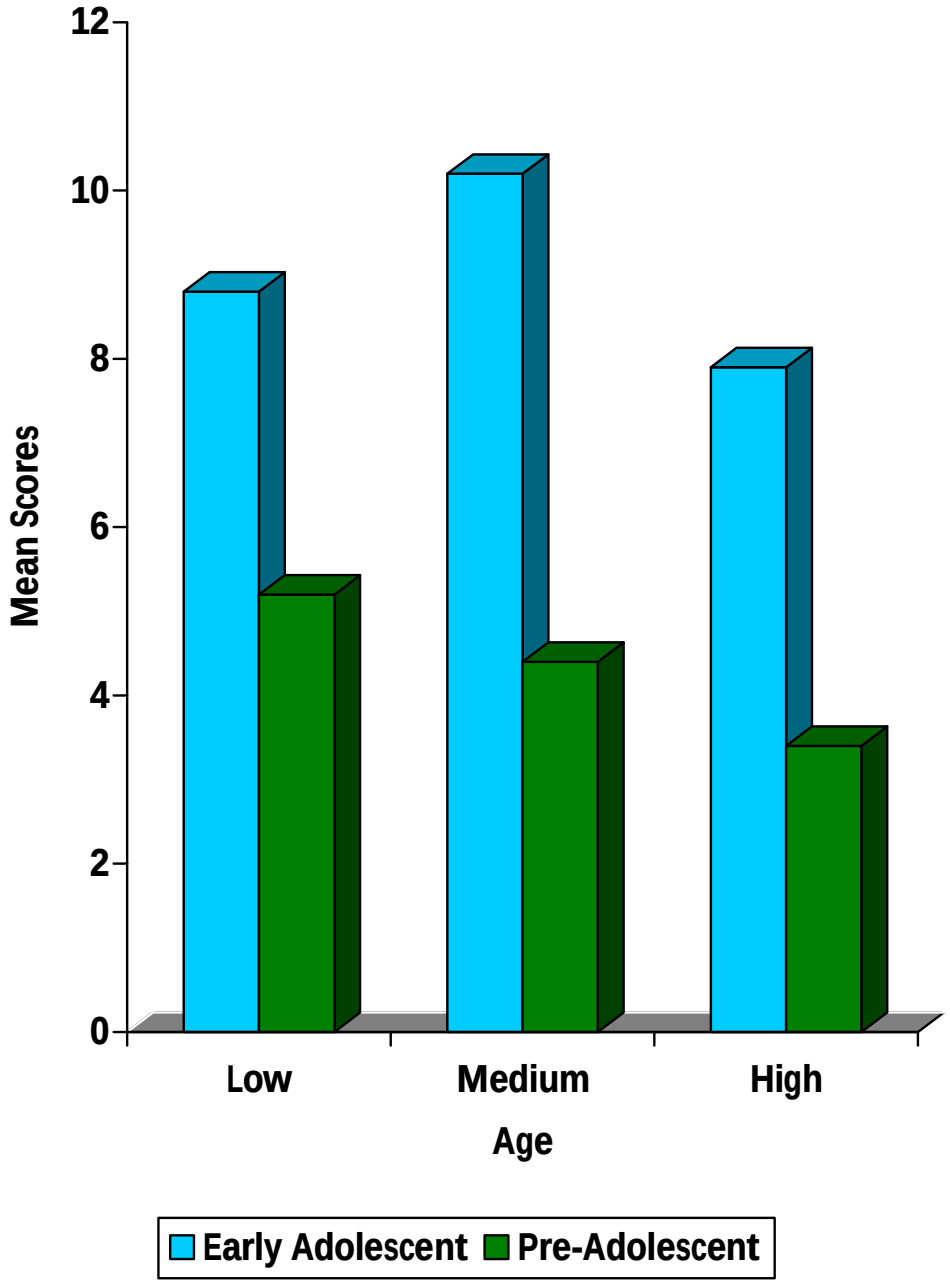
Graph No: 1

Comparison of Grand Parental Proximity with Depression



Graph No: 2

Comparison of Depression Between Early Adolescents and Pre adolescents of Different Level of Proximity



Experiment No: 2

1. Problem: Coping behaviour (Proximity x Gender x Age)

2. HoS

C_8 - Grandparental proximity will not affect coping behaviour

C_9 - Gender will not affect coping behaviour

C_{10} - Age will not affect coping behaviour

C_{11} - Grandparental proximity x gender will not exists in the set

C_{12} - Grandparental proximity x age will not exists in the set

C_{13} - Gender x age will not exists in the set

C_{14} - Grandparental proximity x gender x age will not exist in the set

Table No. 4.6

3. ANOVA Summary

Source	Ss	df	MS	F
A-Level of proximity	34.53	2	17.26	.117
B – Gender	624.03	1	624.03	4.23**
C – Age	82.83	1	82.83	.562
A x B	343.30	2	171.65	1.16
A x C	451.90	2	225.95	1.53
B x C	87.60	1	87.60	.595
A x B x C	940.83	2	470.41	3.19**
Error	33587.2	228	147.31	1.58
Total	36152.2	239	151.26	

Note: ** P<0.01,

* P<0.05

4. Details of Significant Result:

The retained HoS (NO: C-8, 10,11,12,13, that main effect grandparental proximity & age, bivariate interaction AxB, AxC, BxC are not significant.

The rejected HoS may be described as below:

H_OS No: C-9, Gender ……. Rejected (P<.01)

Gender affects coping behaviour

HoS No: C-14 Grandparental proximity x gender x age …….Rejected (P<0.01)

Table No. 4.7

The break-up is

Variable	Source	Ss	Df	MS	F
Level of grandparental (a_1)	BxC	1900.81	1	1900.81	12.90*
(a_2)	BxC	94987.73	1	94987.73	644.81**
(a_3)	BxC	318839.20	1	318839.20	2164.40**
Gender (b_1)	AxC	445370.90	2	89071.80	60461.71**
(b_2)	AxC	126284.02	2	252568.00	1714.53**
Age (c_1)	BxA	725563.00	2	1451126	9850.80**
(c_2)	BxA	2310.16	2	4620.32	31.31**
Error		33587.20	228	147.31	

Note ** P<0.01,

*P< 0.05

1. (BxC) (P<0.01)

Gender promotes coping behaviour in early adolescents who have low level of grandparental proximity, but demotes the same in Pre-adolescents.

Age promotes coping behaviour in the adolescents girls who have low level of grandparental proximity. But demotes the same in adolescent boys.

2. a_2 (BxC) (P< 0.01)

Gender promotes coping behaviour in pre-adolescents of medium level of grandparental proximity. But demotes the same in early adolescents.

Age promotes coping behaviour in female adolescents of medium level of grandparental proximity. But demotes the same in male adolescents.

3 a_3 (BxC) (P<0.01)

Gender promotes coping behaviour in pre adolescents of high level of grandparental proximity. But demotes the same in early adolescents.

Age promotes coping behaviour in female adolescents of high level of grandparental proximity. But demotes the same in male adolescents.

4. b_1 (AxC) (P<0.01)

Grandparental proximity promotes coping behaviour in boys.

Age promotes coping behaviour in boys.

5. b_2 (AxC) (P<0.01)

Grandparental proximity promotes coping behaviour in boys.

Age promotes coping behaviour in boys.

6. c_1 (BxA) (P<0.01)

Gender promotes coping behaviour in early adolescents

7. c_2 (BxA) (P<0.01)

Gender promotes coping behaviour in pre-adolescents.

Grandparental proximities promotes coping behaviour

Table No: 4.8
Research Paradigm

Levels	**Low**		**Medium**		**High**		**Σ**
Gender	**B**	**G**	**B**	**G**	**B**	**G**	
Age Early adolescent	1494	1595	1601	1565	1510	1566	9331
pre adolescent	1635	1561	1460	1599	1508	1709	9472
Σ	3129	3156	3061	3164	3018	2375	18803

Table No: 4.9

Showing Mean & SD of each variable

Levels		a_1		a_2		a_3	
Levels of proximity (A)	Mean	78.56		77.81		78.66	
	SD	9.89		10.66		15.66	
Gender (B)		b_1	b_2	b_1	b_2	b_1	b_2
	Mean	78.22	78.90	76.52	79.10	75.45	81.87
	SD	11.55	8.04	12.95	7.67	9.69	9.54
Age (C)		c_1	c_2	c_1	c_2	c_1	c_2
	Mean	77.22	79.90	79.15	76.47	76.90	80.72
	SD	10.91	8.70	9.64	11.57	10.45	19.54

The main effect of gender is significant at .01 level of confidence, for mean comparison t-test is used

Table No: 4.10

Multiple Comparison of mean for the main effect of gender in different level of grandparental proximity t-test

Levels of proximity	Gender	No	Mean	SD	t
Low	Boys	40	78.22	11.55	.30
	Girls	40	78.90	8.04	
Medium	Boys	40	76.52	12.95	1.08**
	Girls	40	79.10	7.69	
High	Boys	40	75.45	9.69	1.86**
	Girls	40	81.87	19.54	

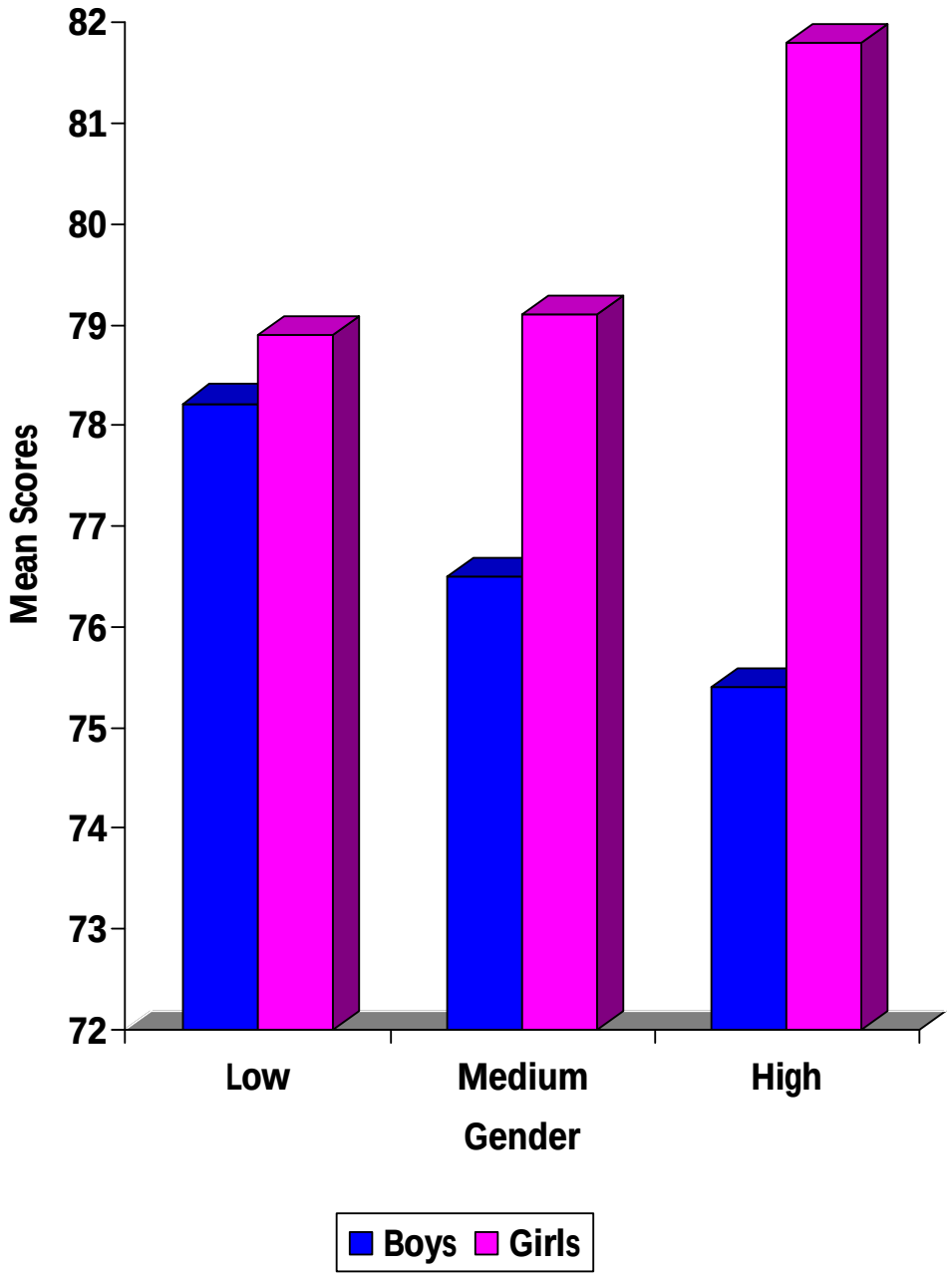
Note **P<0.01

*P<0.05

t-test reveals that there is a significant difference in the coping behaviour of boys, high & medium levels of grandparental proximity. On medium & high levels of grandparental proximity girls are better in coping behaviour than boys as clear in the graph No.3

Graph No. 3

Comparison of Gender with Coping behaviour



Experiment No. 3

1. Problem: Social Skills (Proximity x Gender x Age)

2. HoS

S_{15} - Grandparental proximity will not affect social skills.

S_{16} - Gender will not affect social skills.

S_{17} - Age will not affect social skills.

S_{18} - Grandparental proximity x gender will not exists in the set

S_{19} - Grandparental proximity x age will not exists in the set

S_{20} - Gender x age will not exists in the set

S_{21} - Grandparental proximity x gender x age will not exist in the set

Table No. 4.11

3. ANOVA Summary

Source	Ss	df	MS	F
A-Level of proximity	5440.93	2	2720.40	34.23**
B – Gender	717.60	1	717.6	9.03**
C– Age	97.53	1	97.5	1.22
A x B	326.93	2	163.4	2.05**
A x C	93.10	2	46.5	.586
B x C	42.50	1	42.50	.534
A x B x C	123.63	2	61.80	.778
Error	18115.50	228	79.4	
Total	24957.70	239	104.4	

Note ** P<0.01

* P< 0.05

4. Details of Significant results

The retained H_0S (NO. -17,19,20,21) show that main effect (Age), bivariant interaction (AxC, BxC), and trivariant interaction (AxBxC) are not significant. The rejected HOS may be described as below:

HoS No: S-15, Grandparental proximity ……. Rejected (P<0.01) Grandparental proximity affects the social skills of adolescents. High level of grandparental proximity promotes the social skill of the adolescents.

HoS No: S-16 Gender …….. Rejected (P<0.01)

Gender affects the social skill. Male adolescents have more social skills.

HoS S- 18 (AxB) grandparental proximity x Gender …. Rejected (P<0.01)

High, level of grandparental proximity promotes the social skills of the male adolescents.

5. Summary: Grandparental proximity affects social skill of the adolescents, male adolescent who have high level grandparental proximity promotes the social skill.

Table No. 4.12

Research Paradigm

Levels	**Low**		**Medium**		**High**		**Σ**
Gender	**B**	**G**	**B**	**G**	**B**	**G**	
Age Early adol.	1750	1730	1853	1687	1956	1905	10877
Pre adol.	1752	1718	1752	1699	1977	1891	10789
Σ	3502	3448	3605	3386	3933	3796	21666

Table No. 4.13
Showing Mean & SD of each variable

Levels		**a_1**		**a_2**		**a_3**	
Levels of proximity (A)	**Mean**	86.87		87.38		96.61	
	SD	6.63		8.82		11.86	
Gender (B)		**b_1**	**b_2**	**b_1**	**b_2**	**b_1**	**b_2**
	Mean	87.55	86.20	90.12	84.65	98.32	94.90
	SD	4.74	8.10	8.97	7.87	9.21	13.45
Age (C)		**c_1**	**c_2**	**c_1**	**c_2**	**c_1**	**c_2**
	Mean	87.00	86.75	88.50	86.27	96.52	96.70
	SD	5.60	7.60	11.14	5.57	11.96	11.92

Multiple comparison of mean for the main effect of grandparental proximity Newmen Kuels is used

Table No. 4.14

Means	**Ordered Means**		
	86.87	87.38	96.61
a_1 86.87	-	-	*
a_2 87.38	-	-	*
a_3 96.61	-	-	-

Perusal of the above table (4.14) reveals that there is a significant difference between low and high level of grandparental proximity & middle & high level of grandparental proximity of social skill. On the basis of means values it can be inferred that adolescents who have high level of grandparental proximity have more social skills in comparison to low & medium level of grandparental proximity. It means grandparental proximity increases social skills in adolescents. As shown in the graph No. 4

The main effect of gender is significant at .01 level of confidence, for mean comparison t-test is used.

Table No. 4.15

Comparison of social skills between boys & girls of different levels of proximity

Levels of proximity	Gender	No.	Mean	SD	t
Low	**Boys**	40	87.55	4.74	0.9
	Girls	40	86.20	8.1	
Medium	**Boys**	40	90.12	8.97	2.90*
	Girls	40	84.65	7.87	
High	**Boys**	40	98.32	9.21	1.33*
	Girls	40	94.94	13.45	

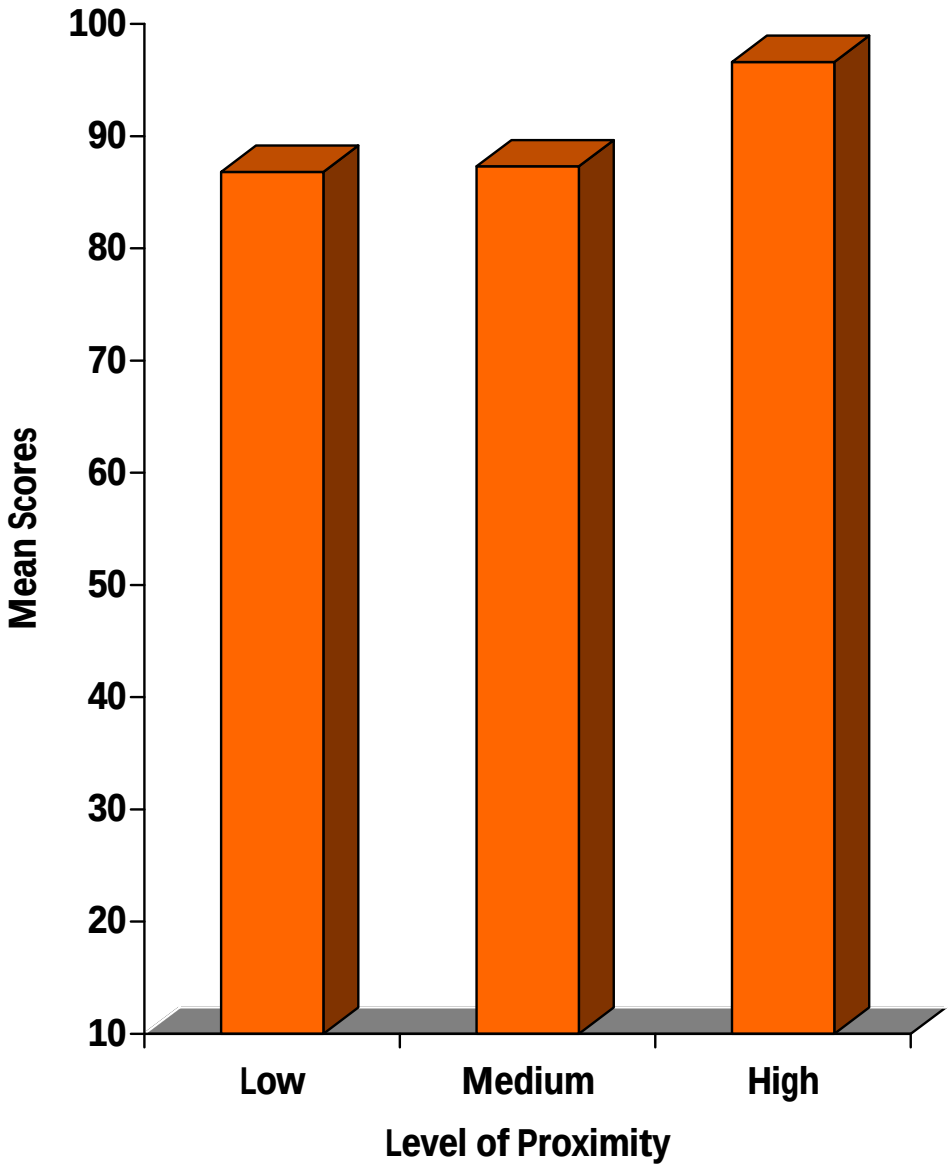
Note ** P<0.01

*P<0.05

t-test revels that there is a significant difference between boys and girls at high and medium level of grandparental proximity. Results show that boys are better than girls in social skills. It can be inferred that boys have more social skill than girls. As shown in Graph No.5.

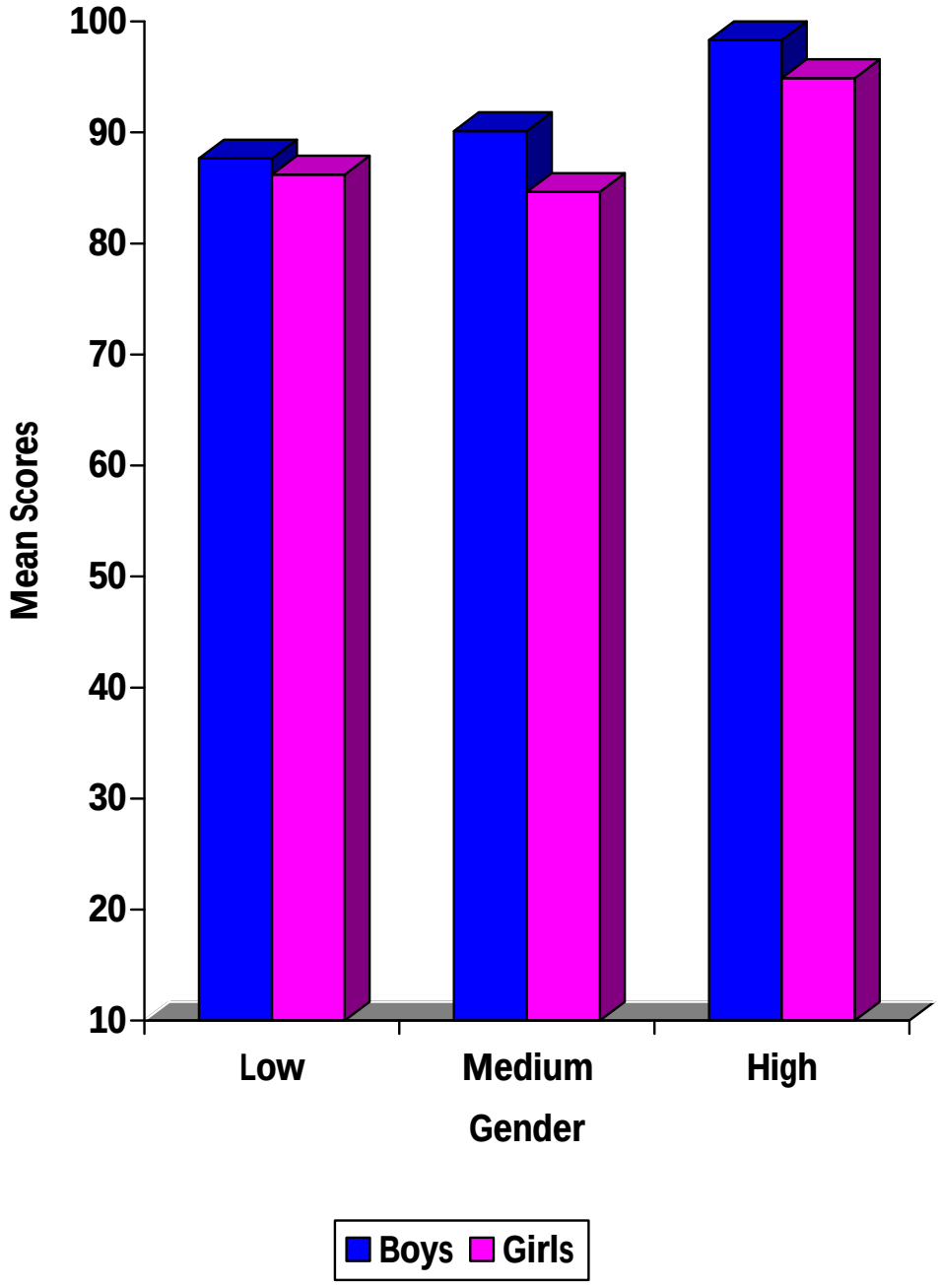
Graph No. 4

Comparison of Grandparental Proximity with Social Skills



Graph No. 5

Comparison of Gender with social skills



Experiment No. 4

1Problem: Presentation Skill [S_1] (Proximity x Gender x Age)

2.HoS

P_{22} - Grandparental proximity will not affect presentation skill.

P_{23} - Gender will not affect presentation skill.

P_{24} - Age will not affect presentation skill.

P_{25} - Grandparental proximity x gender will not exists in the set

P_{26} - Grandparental proximity x age will not exists in the set

P_{27} - Gender x age will not exists in the set

P_{28} - Grandparental proximity x gender x age will not exist in the set

Table No. 4.16

3. ANOVA Summary

Source	Ss	df	MS	F
A-Level of proximity	90.92	2	45.46	17.42**
B – Gender	17.60	1	17.60	6.74**
C– Age	2.20	1	2.28	.845
A x B	12.30	2	6.15	2.35**
A x C	2.0	2	1.00	.385
B x C	1.83	1	1.83	.704
A x B x C	1.22	2	.613	.235
Error	594.95	228	2.60	
Total	723.06	239	3.60	

Note: ** P<0.01

* P<0.05

4. Details of Significant results

The retained HoS (NO 24, 26, 27, 28) show that main effect (Age), bivariate interaction (A x C) (B xC) & trivariate interaction on (Ax B x C) are not significant.

The rejected HoS may be described as below:

HoS No P_{22} – Grand Parental Proximity …… Rejected (P<0.01)

Grandparental Proximity promotes presentation skills of the adolescents.

HoS No P_{23} -Gender …..Rejected (P<0.01)

Male adolescents have more Presentation Skill.

HoS No P_{25}- Grand Parental Proximity x Gender…Rejected (P<0.01.)

High Level of Grandparental Proximity presentation skills in male adolescent.

5. Summary: Grandparental Proximity promotes presentation skills in male adolescents. Male adolescent have more presentation skills.

Table No. 4.17

Research Paradigm

Levels	**Low**		**Medium**		**High**		**Σ**
Gender	**B**	**G**	**B**	**G**	**B**	**G**	
Age Early adolescent	238	245	247	231	274	261	1496
Pre adolescent	253	248	253	227	275	263	1519
Σ	491	493	500	458	549	524	3015

Table No. 4.18

Showing Mean & SD of each variable

Levels		**a_1**		**a_2**		**a_3**	
Levels of proximity (A)	**Mean**	12.30		11.97		13.41	
	SD	1.44		1.72		1.72	
Gender (B)		**b_1**	**b_2**	**b_1**	**b_2**	**b_1**	**b_2**
	Mean	12.27	12.32	12.50	11.45	13.72	13.10
	SD	1.41	1.49	1.53	1.75	1.76	1.63
Age (C)		**c_1**	**c_2**	**c_1**	**c_2**	**c_1**	**c_2**
	Mean	12.08	12.53	11.95	12.00	13.37	13.45
	SD	1.14	1.68	1.96	1.46	1.75	1.70

Multiple comparison of mean for the effect of grand parental proximity Newmen Kuels test is used-

Table No. 4.19

Comparison of presentation skills between different levels of grandparental proximity

Means	**Ordered Means**		
	11.90	12.30	13.40
a_2 11.90	-	-	*
a_1 12.30	-	-	*
a_3 13.40	-	-	-

Perusal of the above table (4.19) reveals that there is a significant difference between the different levels of grand parental proximity with respect to presentation skills. It is clear that high level of grand parental proximity promotes presentation skills. Graph No. 6 also showing the same thing.

The main effect of gender is significant at .01 level of confidence, for mean comparison t-test is used.

Table No. 4.20

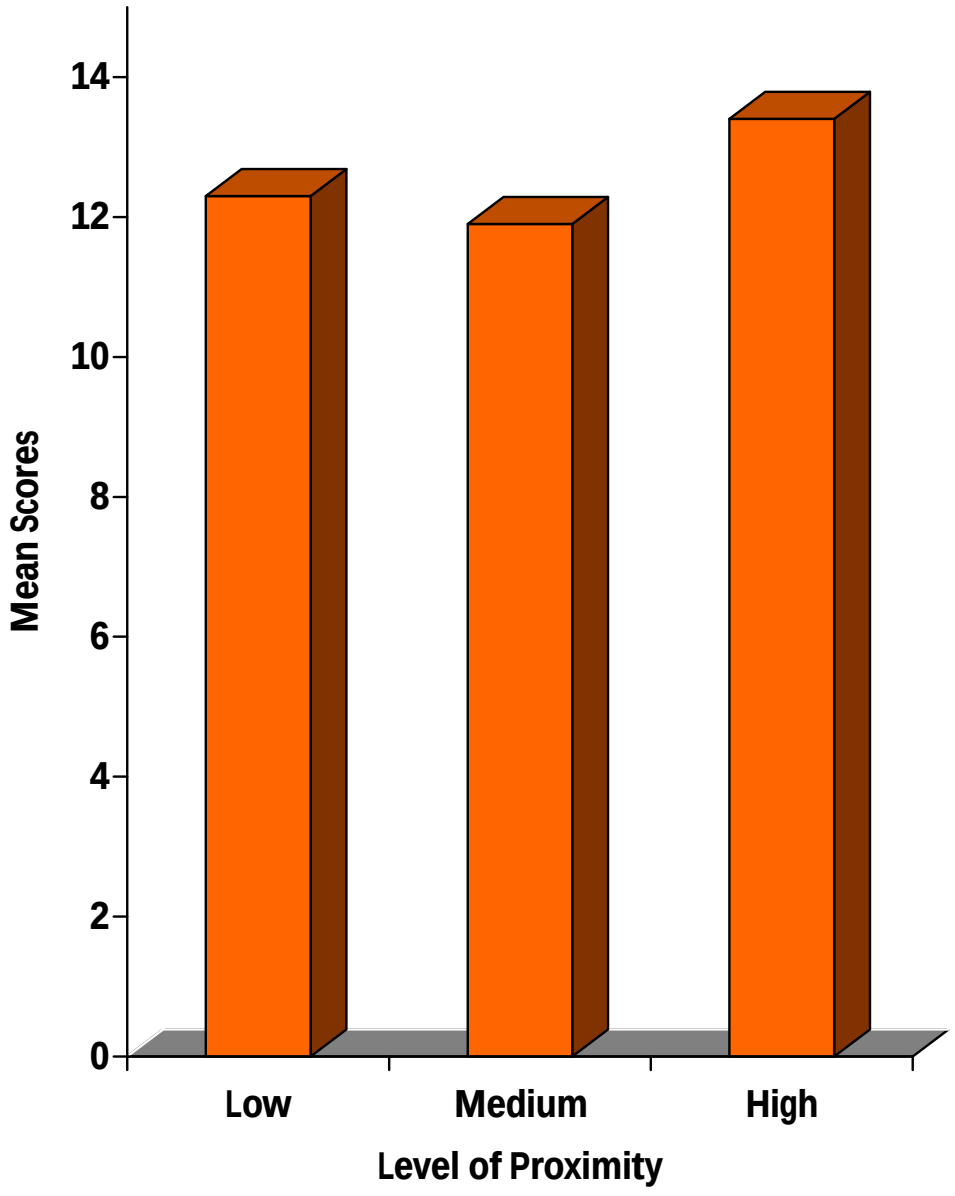
Comparison of presentation skill between boys & girls of different levels of proximity

Levels of proximity	Gender	No.	Mean	SD	t
Low	**Boys**	40	12.27	1.41	0.1
	Girls	40	12.32	1.49	
Medium	**Boys**	40	12.50	1.53	0.2
	Girls	40	11.45	1.75	
High	**Boys**	40	13.72	1.76	0.48
	Girls	40	13.10	1.63	

t-test reveals that on the different levels of grandparental proximity there is no significant difference in the presentation skill of boys & girls on all three levels of grand parental proximity. But on the basis of mean values it can be said that there is a slight difference in mean values at different levels of proximity. That is clear from graph No. 7.

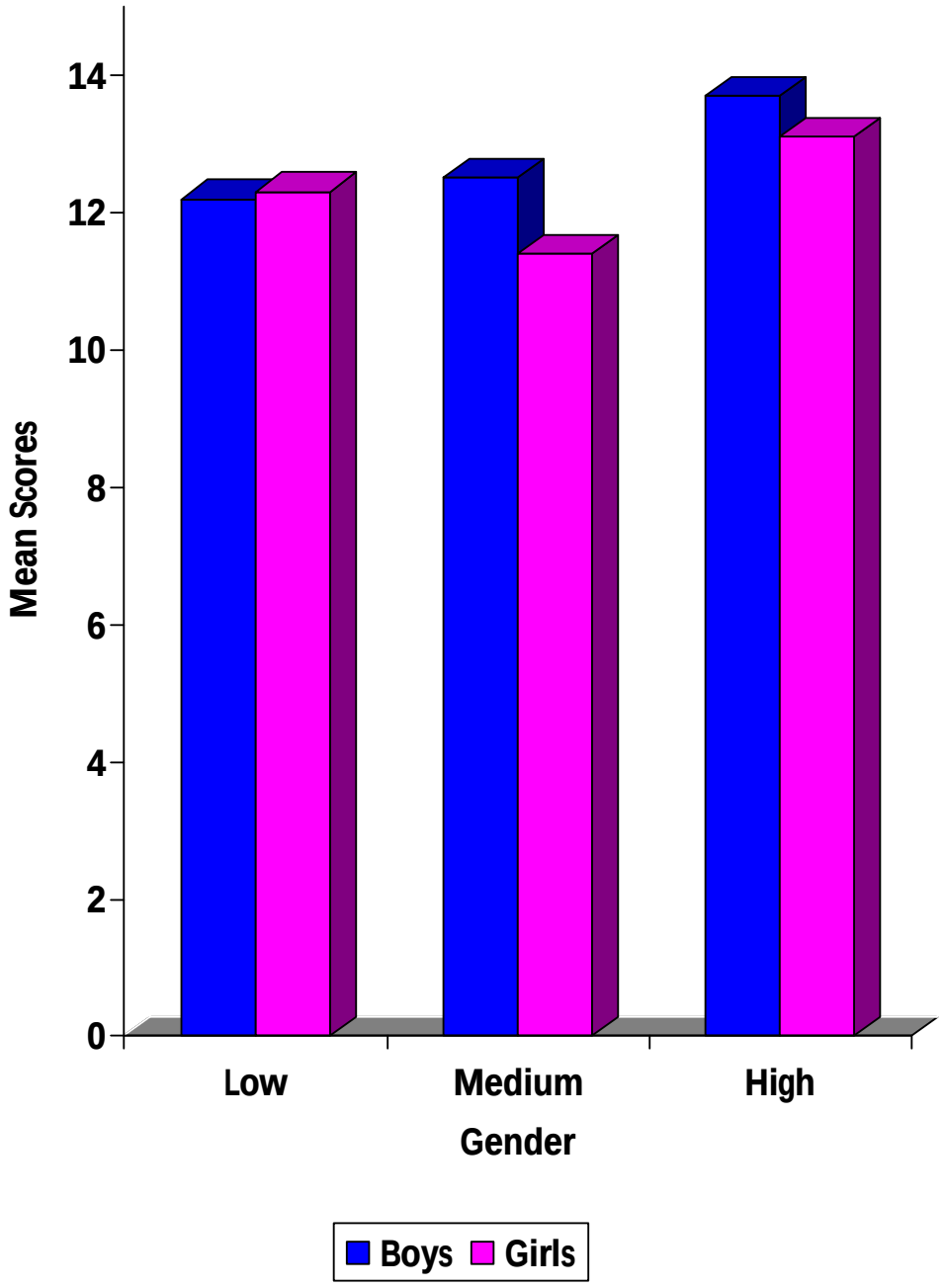
Graph No. 6

Comparison of Grandparental Proximity with Presentation Skills



Graph No. 7

Comparison of Gender with Presentation skills



Experiment No. 5

1. Problem: Interaction skills (S_2) (Proximity x Gender x Age)

2. HoS

I_{29} - Grandparental proximity will not affect interaction skill.

I_{30} - Gender will not affect interaction skill.

I_{31} - Age will not affect interaction skill.

I_{32} - Grandparental proximity x gender will not exists in the set

I_{33} - Grandparental proximity x age will not exists in the set

I_{34} - Gender x age will not exists in the set

I_{35} - Grandparental proximity x gender x age will not exist in the set

Table No. 4.21

3. ANOVA Summary

Source	Ss	df	MS	F
A-Level of proximity	11.25	2	5.62	1.62
B – Gender	46.81	1	46.81	13.51**
C– Age	1.66	1	1.66	.481
A x B	7.35	2	3.67	1.06
A x C	4.40	2	2.20	.636
B x C	4.81	1	4.81	1.39
A x B x C	.908	2	.457	.131
Error	789.70	228	3.46	
Total	866.93	239	3.62	

Note: ** P<0.01,

* P<0.05

4. Details of Significant Results

The retained HoS (NO 29, 31, 32, 33, 34, 35) show that main effect (A), Proximity, (c) Age, bivariate [A x B, A x C, B xC] & trivariate (A x B x C) are not significant.

The rejected H_OS may be described as below:

HoS No: 30 Gender ……..Rejected (P<0.01)

Gender affects interaction skill.

5. Summary

Male adolescents have more interactional skills in comparison to female adolescent as decapitated in the graph No. 8.

Table No. 4.22

Research Paradigm

Levels	**Low**		**Medium**		**High**		**Σ**
Gender	**B**	**G**	**B**	**G**	**B**	**G**	
Age Early adolescent	216	203	225	208	228	222	1302
Pre adolescent	233	208	233	199	230	219	1322
Σ	449	411	458	407	458	441	2624

Table No. 4.23

Showing Mean & SD of each variable

Levels		**a_1**		**a_2**		**a_3**	
Levels of proximity (A)	**Mean**	10.75		10.81		11.23	
	SD	2.00		2.23		1.35	
Gender (B)		**b_1**	**b_2**	**b_1**	**b_2**	**b_1**	**b_2**
	Mean	11.22	10.27	11.45	10.17	11.45	11.02
	SD	2.04	1.86	1.75	2.49	1.33	1.34
Age (C)		**c_1**	**c_2**	**c_1**	**c_2**	**c_1**	**c_2**
	Mean	10.47	11.02	10.82	10.80	11.25	11.22
	SD	1.93	2.05	2.22	2.26	1.44	1.27

The main effect of gender is significant at .01 of confidence, for mean comparison t-test is used.

Table No. 24

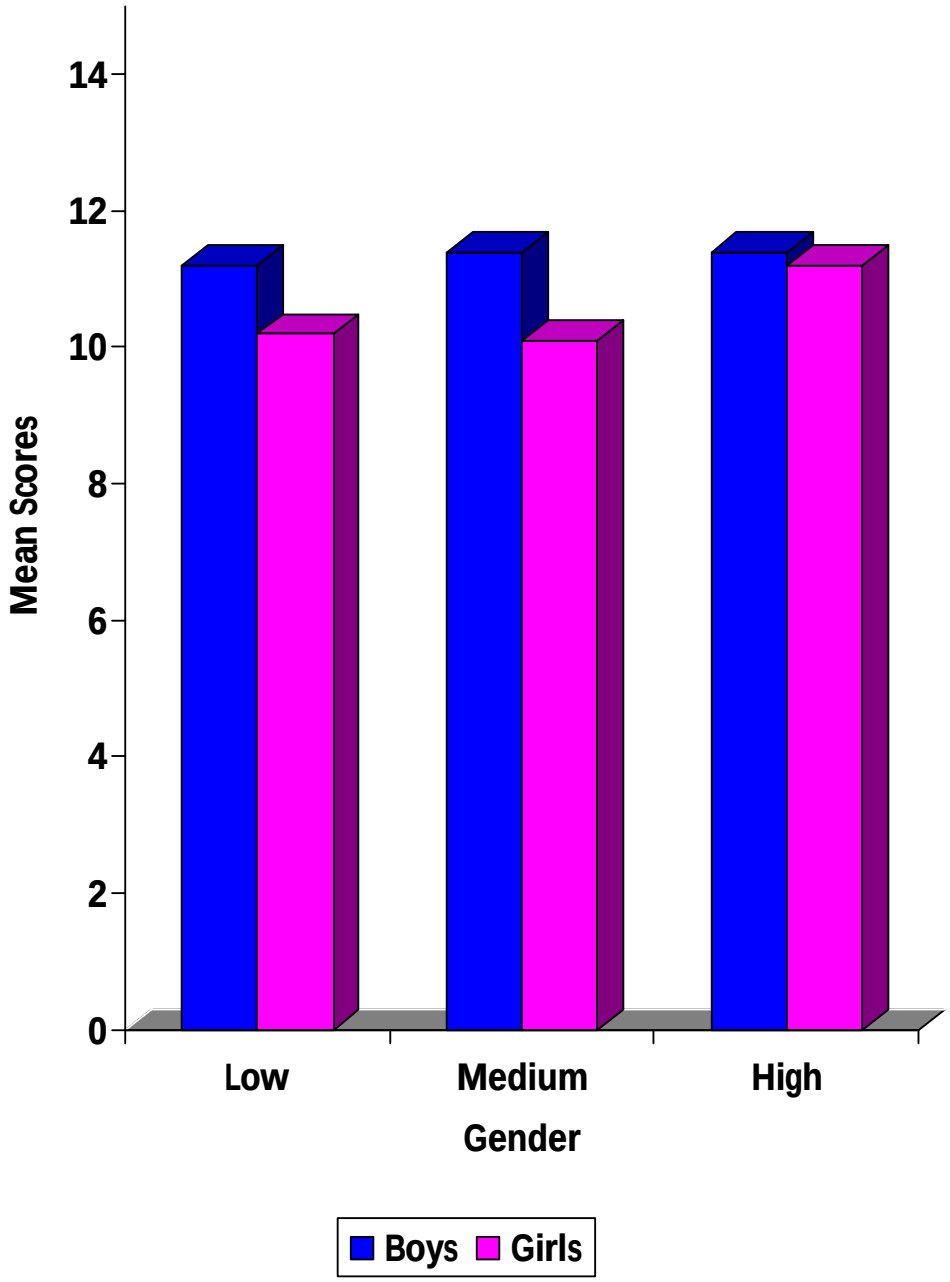
Comparison of interaction skills between boys & girls of different levels of proximity

Levels of proximity	**Gender**	**No.**	**Mean**	**SD**	**t**
Low	**Boys**	40	11.22	2.04	0.46
	Girls	40	10.27	1.86	
Medium	**Boys**	40	11.45	1.75	0.35
	Girls	40	10.17	2.49	
High	**Boys**	40	11.45	1.33	0.65
	Girls	40	11.02	1.34	

t-test reveals that on the different levels of grandparental proximity there is no significant difference in the interaction skill of boys & girls. But on the basis of mean scores it can be inferred that on different levels of grand parental proximity boys have more interaction skills than girls. As depicted in graph No. 8.

Graph No. 8

Comparison of Gender with Interaction Skills



Experiment No – 6

1. **Problem:** Conversation skills (S_3) (Proximity x Gender x Age)
2. **HoS**

   C_{36} : Grandparental proximity will not affect conversation skill

   C_{37} : Gender will not affect conversation skill.

   C_{38} : Age will not affect conversation skill.

   C_{39} : Grandparental proximity x Gender will not exists in the set.

   C_{40} : Grandparental proximity x Age will not exists in the set

   C_{41} : Gender x Age will not exists in the set.

   C_{42} : Grandparental proximity x Gender x Age will not exist in the set.

Table No. 4.25

3. **ANOVA SUMMARY**

Source	**Ss**	**df**	**MS**	**F**
Level of Proximity A	352.42	2	176.21	10.57**
Gender B	.600	1	.600	.036
Age C	35.26	1	35.26	2.11**
AxB	52.97	2	26.48	1.59*
AxC	29.90	2	14.95	.898
BxC	35.26	1	35.26	2.11**
AxBxC	5.85	2	2.92	.176
Error	3798.10	228	16.65	
Total	4310.4	239	18.03	

Note: **P < 0.01,

*P< 0.05

4. Details of significant results:

The retained HoS (NO 37, 40,42) show that main effect (B) Gender, bivariate (AxC) & trivariate (AxBxC) interactions are not significant.

The rejected HOS may be described as below:

HoS NO- C_{36} Grandparental Proximity ……Rejected ($P<0.01$)

Grandparental proximity promotes the conversation skills in adolescents.

HoS NO- C_{38} Age ……Rejected ($P<0.01$)

Age Promotes conversation skills in adolescents.

HoS NO- C_{39} Grand Parental Proximity x Gender……Rejected ($P<0.05$)

Grandparental proximity independent of gender promotes conversation skills. Male adolescents who have medium & high level of grandparental proximity.

HoS No. C-42 Gender x Age ……Rejected ($P<0.01$)

Age independent of gender promotes conversation skills in adolescents.

Gender independent of age promotes conversation skill in male adolescents but demotes the same in female adolescents.

5. Summary

High and Medium level of grand parental proximity of male pre-adolescent promotes the conversation skills.

Table No. 4.26

Research Paradigm

Levels	**Low**		**Medium**		**High**		**Σ**
Gender	**B**	**G**	**B**	**G**	**B**	**G**	
Age Early adolescent	368	386	414	377	449	416	2410
Pre adolescent	359	390	359	362	421	427	2318
Σ	727	776	773	739	870	843	4728

Table No. 4.27

Showing mean & SD of each variable

Levels		**a_1**		**a_2**		**a_3**	
Levels of proximity(A)	**Mean**	18.78		18.90		21.41	
	SD	2.90		4.70		4.42	
Gender (B)		**b_1**	**b_2**	**b_1**	**b_2**	**b_1**	**b_2**
	Mean	18.17	19.40	19.32	18.47	21.25	21.07
	S.D	3.04	2.65	4.16	5.20	4.14	4.70
Age (C)		**c_1**	**c_2**	**c_1**	**c_2**	**c_1**	**c_2**
	Mean	18.85	18.72	19.77	18.02	21.62	21.20
	SD	2.58	3.22	4.87	4.46	4.35	4.53

Multiple Comparison of mean for the effect of Grandparental Proximity Newmen Kuels test is used-

Table No. 4.28

Comparison of conversation skills three levels of grandparental proximity

Mean	**Ordered mean**		
	18.78	18.90	21.41
a_1 18.78	-	-	*
a_2 18.90	-	-	*
a_3 21.41	-	-	-

Perusal of the above table (4.28) reveals that there is significant difference between three levels of grandparental proximity. From the basis of mean values, it can be inferred that high grandparental proximity promotes conversation skills in adolescents. As it is clear from the graph no. 9

The main effect of age is significant at .01 level of confidence, but for mean comparison t-test is used-

Table No. 4.29

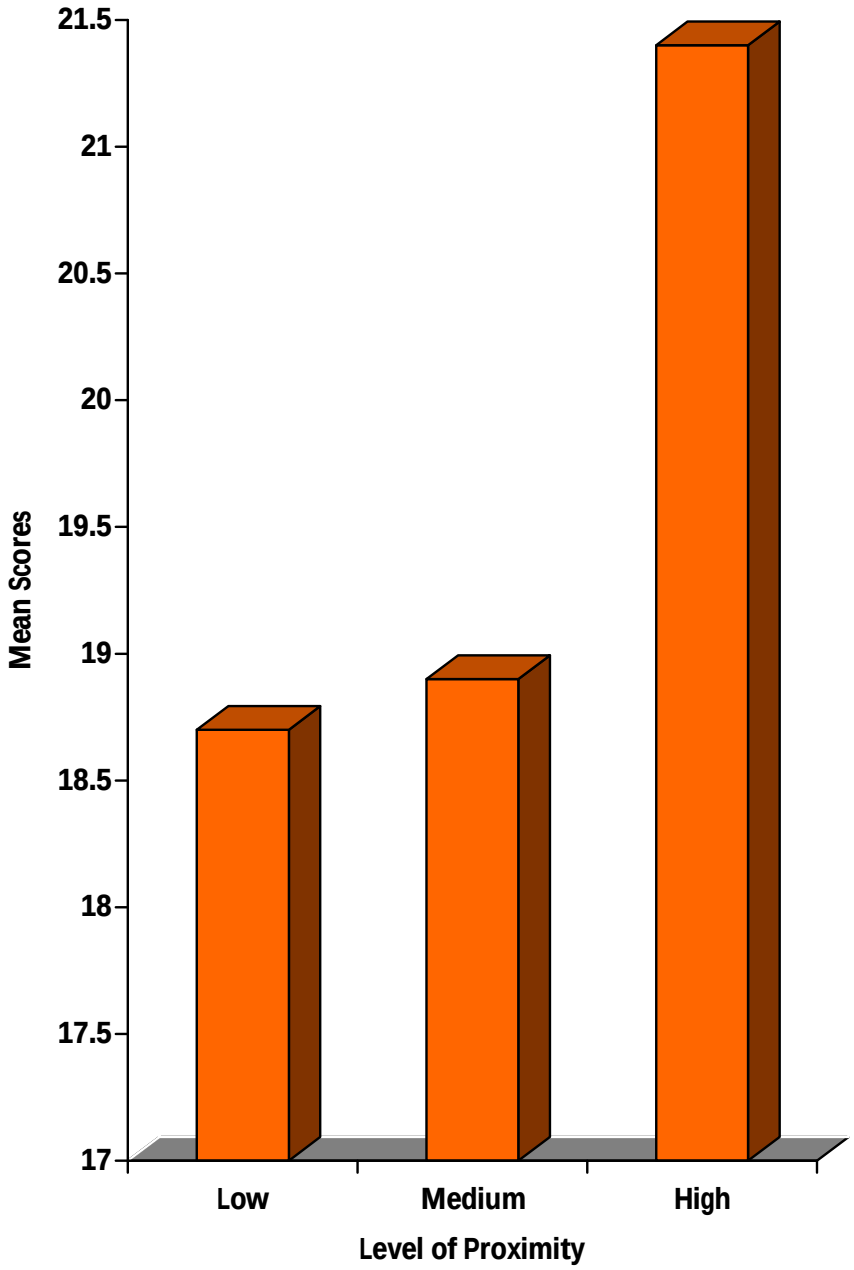
Comparison of Conversation skills between Early & Pre adolescent of different level of proximity

Levels of proximity	Age	No.	Mean	SD	't'
Low	Early Adolescents	40	18.85	2.58	0.19
	Pre adolescents	40	18.72	3.22	
Medium	Early Adolescents	40	19.77	4.87	0.58
	Pre adolescents	40	18.02	4.46	
High	Early adolescents	40	21.62	4.35	0.98
	Pre adolescents	40	21.20	4.53	

't' test reveals that there is no significant effect at any level of grand parental proximity. On the basis of mean values Early adolescent are better in their conversational skills than Pre adolescent at medium and high level of grand parental proximity. As it is clear from Graph No. 10

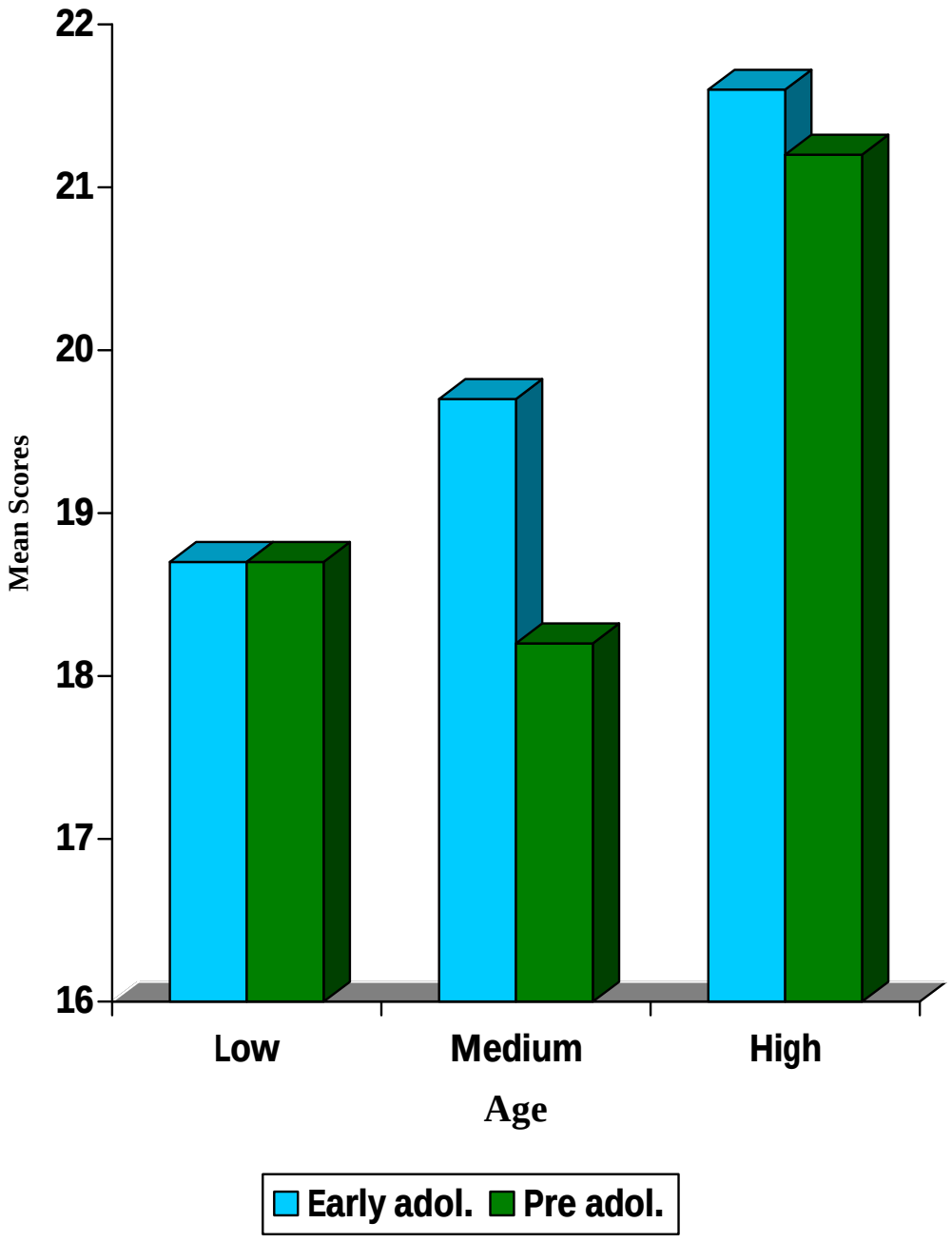
Graph No.9

Comparison of Level of Proximity with Conversation Skill



Graph No-10

Comparison of Age with Conversation Skill



Experiment No. 7

1. Problem: Social integration skill (S_4): (Proximity x Gender x Age)

2. HoS

S_{43} : Grandparental proximity will not affect social integration skill.

S_{44} : Gender will not affect social integration skill.

S_{45} : Age will not affect social integration skill.

S_{46} : Grandparental proximity x Gender will not exists in the set.

S_{47} : Grandparental proximity x Age will not exists in the set

S_{48} : Gender x Age will not exists in the set.

S_{49} : Grandparental proximity x Gender x Age will not exist in the set.

Table No. 4.30

3. ANOVA SUMMARY

Source	**S_S**	**df**	**MS**	**F**
Level of Proximity A	387.77	2	193.8	27.83**
Gender B	77.06	1	77.06	11.06**
Age C	1.66	1	1.66	.239
AxB	11.90	2	5.70	.819
AxC	38.80	2	19.40	2.78**
BxC	12.15	1	12.15	1.74
AxBxC	7.07	2	3.53	.508
Error	1588.3	228	6.96	
Total	2124.2	239	8.88	

Note: **P < 0.01,

*P< 0.05

4. Details of significant results:

The retained HoS (NOS:SI – 45, 46, 48, 49) show that main effect (C) Age, bivariate (AxB),(BxC) & trivariate (AxBxC) interactions are not significant.

The rejected HoS may be described as below:

HoS NO. SI_{43} - Grandparental Proximity ……Rejected (P<0.01)

Grandparental proximity promotes the social integration skills among adolescents.

HoS NO. SI_{44} - Gender……Rejected (P<0.01)

Male adolescents have more social integration skill than female adolescents.

HoS NO. SI_{47} - Grandparental Proximity x Age……Rejected (P<0.01)

Grandparental proximity promotes the social integration skills among early adolescents.

Age independent of Grandparental proximity promotes social integration skills in early adolescent.

5. Summary

In early adolescents high & low levels of grandparental proximity promotes social integration skills, but demotes the same in adolescents having medium level of grandparental proximity.

Table No. 4.31

Research Paradigm

Levels	**Low**		**Medium**		**High**		**Σ**
Gender	**B**	**G**	**B**	**G**	**B**	**G**	
Age Early adolescent	320	304	367	320	393	361	2065
Pre adolescent	334	317	330	307	379	378	2045
Σ	654	621	697	627	772	734	4110

Table No. 4.32

Showing mean & SD of each variable

Levels		**a_1**		**a_2**		**a_3**	
Levels of proximity(A)	**Mean**	15.93		16.55		18.88	
	SD	2.31		2.73		3.02	
Gender (B)		**b_1**	**b_2**	**b_1**	**b_2**	**b_1**	**b_2**
	Mean	16.35	15.52	17.42	15.67	19.30	18.47
	S.D	2.23	2.34	2.96	2.20	3.01	3.01
Age (C)		**c_1**	**c_2**	**c_1**	**c_2**	**c_1**	**c_2**
	Mean	15.60	16.27	17.17	15.92	18.85	18.92
	SD	2.07	2.51	290	2.43	3.04	3.04

Multiple comparison of mean for the main effect of grandparental proximity Newmen Kuel's test is used-

Table No. 4.33

Comparison of social integration skills between three levels of grandparental proximity

Mean	**Ordered mean**		
	15.94	16.55	18.89
a_1 15.94	-	-	*
a_2 16.55	-	-	*
a_3 18.89	-	-	-

Perusal of the above table (4.33) reveals that there is a significant difference between three levels of grandparental proximity with respect to social integration skills showing that high grandparental proximity promotes social integration skills in adolescents, as it is clear from the graph No. 11.

The main effect of gender is significant at .05 level of confidence for mean comparison t-test is used.

Table No. 4.34

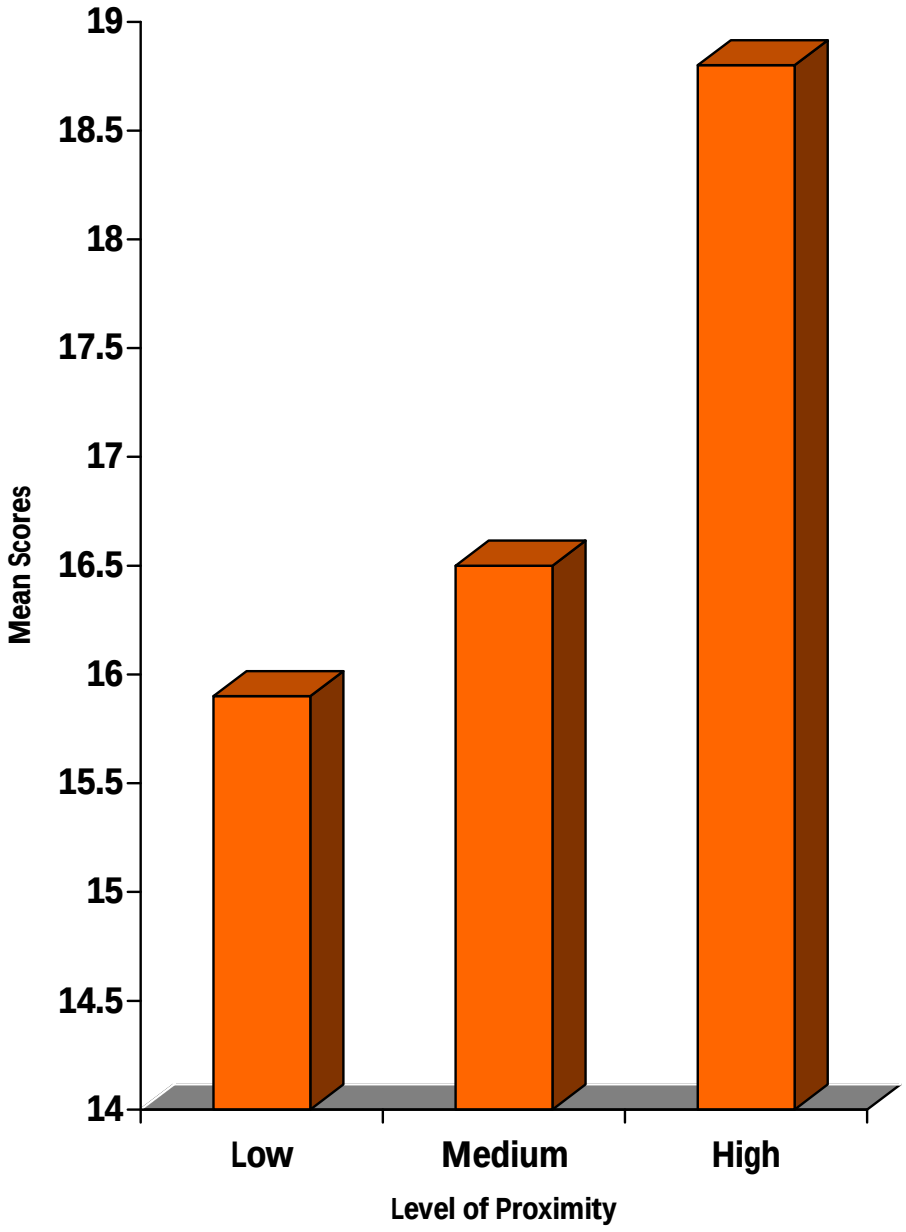
Comparison of social integration skills between boys and girls of different levels of proximity

Levels of proximity	Gender	No.	Mean	SD	t
Low	**Boys**	40	16.35	2.23	0.60
	Girls	40	15.52	2.34	
Medium	**Boys**	40	17.42	2.96	0.56
	Girls	40	15.67	2.20	
High	**Boys**	40	19.30	3.01	0.63
	Girls	40	18.47	3.01	

t-test reveals that there is no significant difference between boys & girls on different levels of grandparental proximity, but on the basis of mean scores it can be said that boys have more social integration skills than girls at different levels of proximity. As it is clear from the graph no.11

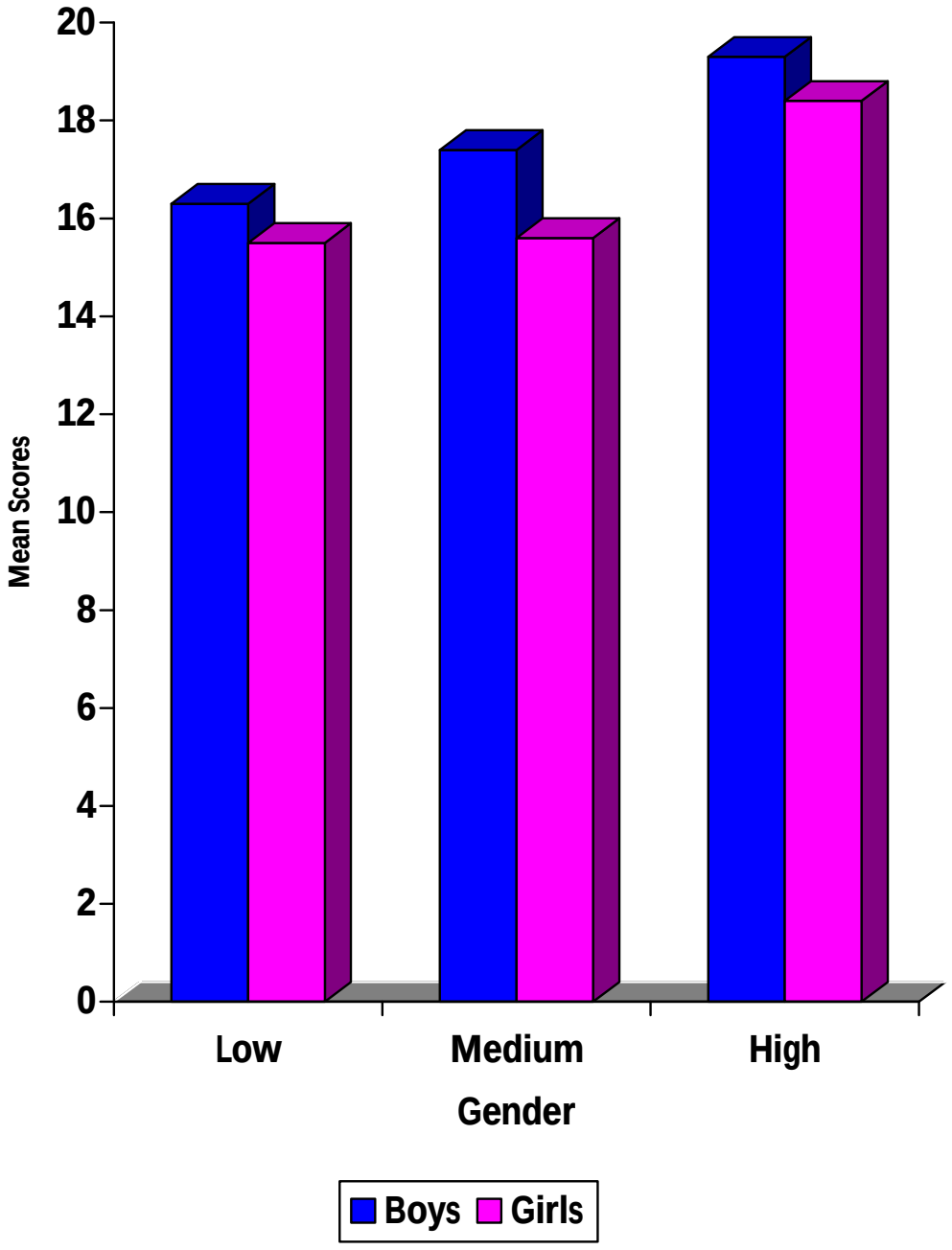
Graph No.11

Comparison of Level of Proximity with Social integration Skill



Graph No-12

Comparison of Gender with Social integration skill



Experiment No. 8

1. Problem: Attitude towards other children (S5): [Proximity x Gender x Age]

2. HoS

A_{50} : Grandparental proximity will not affect attitude towards other children.

A_{51} : Gender will not affect affect attitude towards other children.

A_{52}: Age will not affect attitude towards other children.

A_{53} : Grandparental proximity x Gender will not exists in the set.

A_{54} : Grandparental proximity x Age will not exists in the set

A_{55} : Gender x Age will not exists in the set.

A_{56} : Grandparental proximity x Gender x Age will not exist in the set.

Table No. 4.35

3. ANOVA SUMMARY

Source	Ss	df	MS	F
Level of Proximity A	107.00	2	53.50	7.93**
Gender B	3.03	1	3.03	.451
Age C	1.83	1	1.83	.273
AxB	6.02	2	3.01	.447
AxC	2.57	2	1.28	.191
BxC	.038	1	.038	.006
AxBxC	13.12	2	6.56	.973
Error	1537.15	228	6.74	
Total	1670.79	239	5.99	

Note: **P < 0.01

*P< 0.05

4. Details of significant results:

The retained HoS (NOS: A- 51, 52 ,53, 54, 55, 56) show that main effect B & C, bivariate (AxB, AxC, BxC) & trivariate (AxBxC) interactions are not significant.

The rejected HoS may be described as below:

HoS NO A_{50} - Grandparental Proximity……Rejected (P<0.01)

Grandparental proximity promotes the attitude of the adolescents towards other children.

5. Summary

Attitude towards other children is associated with grandparental proximity

Table No. 4.36

Research Paradigm

Levels	**Low**		**Medium**		**High**		
Gender	**B**	**G**	**B**	**G**	**B**	**G**	**Σ**
Age Early adolescent	247	248	248	226	262	271	1502
Pre adolescent	236	241	236	233	276	259	1481
Σ	483	489	484	459	538	530	2983

Table No. 4.37

Showing mean & SD of each variable

Levels		**a_1**		**a_2**		**a_3**	
Levels of proximity(A)	**Mean**	12.15		11.78		13.35	
	SD	2.45		2.55		2.69	
Gender (B)		**b_1**	**b_2**	**b_1**	**b_2**	**b_1**	**b_2**
	Mean	12.07	12.22	12.10	11.47	13.45	13.25
	S.D	2.70	2.20	2.80	2.18	1.66	3.44
Age (C)		**c_1**	**c_2**	**c_1**	**c_2**	**c_1**	**c_2**
	Mean	12.37	11.92	11.85	11.72	13.32	13.37
	SD	2.70	2.17	2.78	2.34	2.71	2.70

Multiple comparison of mean for the main effect of grandparental proximity Newmen Kuel's test is used-

Table No. 4.38

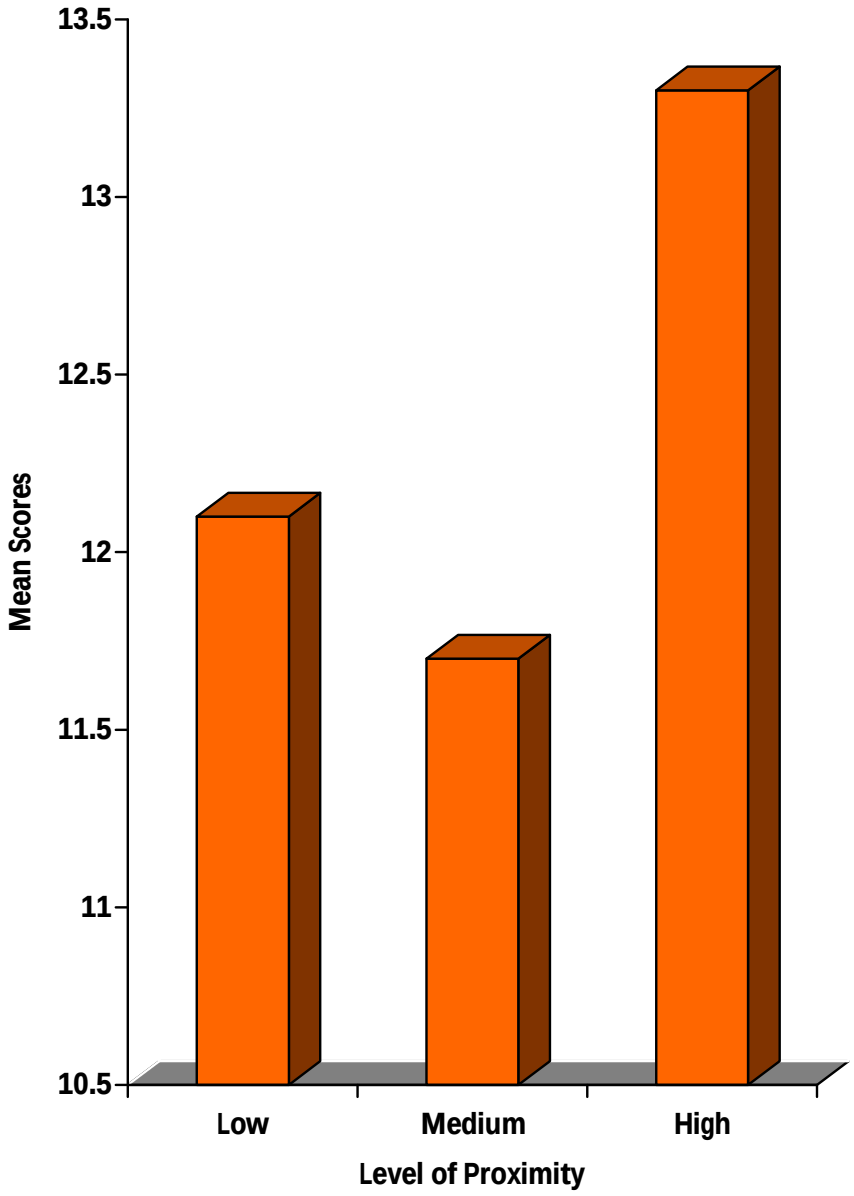
Comparison of Attitude towards other children between three levels of grandparental proximity

Mean	**Ordered mean**		
	11.7	12.1	13.3
a_1 - 11.7	-	-	*
a_2 – 12.1	-	-	*
a_3 – 13.3	-	-	-

Perusal of the above table (4.38) reveals that there is significant difference between three levels of grandparental proximity with respect to social skill of attitude. On the basis of results it can be inferred that high grandparental proximity promotes attitude towards other children. As it is clear from the graph No. 13.

Graph No.13

Comparison of Level of Proximity with Attitude towards other Children



Experiment No. 9

1. Problem: Attitude towards adults: [Proximity x Gender x Age]

2. HOS

A_{57} : Grandparental proximity will not affect attitude towards adults.

A_{58} : Gender will not affect attitude towards adults.

A_{59}: Age will not affect attitude towards adults.

A_{60} : Grandparental proximity x Gender will not exists in the set.

A_{61} : Grandparental proximity x Age will not exists in the set

A_{62} : Gender x Age will not exists in the set.

A_{63} : Grandparental proximity x Gender x Age will not exist in the set.

Table No. 4.39

3. ANOVA SUMMARY

Source	S_S	df	MS	F
Level of Proximity A	169.63	2	84.81	11.56**
Gender B	19.83	1	19.83	2.70**
Age C	16.53	1	16.53	2.55**
AxB	20.80	2	10.40	1.41
AxC	39.70	2	19.85	2.70**
BxC	.704	1	.704	.096
AxBxC	54.03	2	27.01	3.68**
Error	1672.05	228	7.33	
Total	1993.29	239	8.34	

Note: **$P < 0.01$

*$P < 0.05$

4. Details of significant results:

The retained HoS (NOS:A- 60, 62) show that bivariate (AxB) (BxC) are not significant.

The rejected HoS may be described as below:

HoS No: A_{57}- Grandparental Proximity……Rejected (P<0.01)

Grandparental proximity promotes the attitude of the adolescents towards adults.

HoS No: A_{58} - Gender …… Rejected (P<0.01)

Age promotes the attitude of the adolescents towards adults.

HoS No: A_{59} - Age ……..Rejected (P<0.01)

Age promotes the attitude of the adolescents towards adults.

HoS No: A_{61}- Grandparental proximity x Age …… Rejected (P<0.01)

Grandparental proximity independent of age promotes attitude towards adults.

HoS No: A_{63}- Grandparental proximity x Gender x Age ....Rejected (P<0.01)

Grandparental proximity independent of age promotes attitude towards adults.

Table No. 4.40

The break up is

Variables	Source	Ss	df	MS	F
Levels of proximity (a_1)	BxC	2.15	2	4.3	0.5
(a_2)	BxC	40.79	1	40.79	5.56*
(a_3)	BxC	50.66	1	50.66	6.91*
Gender (b_1)	AxC	30.65	2	61.5	8.36*
(b_2)	AxC	62.8	2	125.6	17.1**
Age (c_1)	BxA	22.6	1	22.6	3.0*
(c_2)	BxA	2175.8	2	4351.6	593.6**
Error		1672.05	228	7.33	

2. a_2 (BxC) ($P<0.01$)

Gender promotes attitude towards adults in the adolescence having medium level of grandparental proximity.

Age promotes attitude towards adults in the adolescents who have medium level of grandparental proximity.

3. a_3 (BxC) ($P<0.01$)

Gender promotes attitude towards adults in the adolescents who have high level of grandparental proximity.

Age promotes attitude towards adults in the adolescents having high levels of grandparental proximity.

4. b_1 (AxC) ($P<0.01$)

High levels of proximity promotes attitude towards adults of adolescents.

Age promotes attitude towards adults in adolescents.

5. b_2 (AxC) (P<0.01)

Grandparental proximity promotes attitude towards adults in adolescents.

Age promotes attitude towards adults in adolescents.

6. c_2 (BxA) (P<0.01)

Gender promotes attitude towards adults in different levels of proximity in early adolescents.

High level of proximities promotes attitude towards adults in early adolescents.

7. c_2 (BxA) (P<0.01)

Gender promotes attitude towards adults in pre adolescents.

Grandparental proximity promotes attitude towards adults in pre adolescents.

Table No. 4.41

Research Paradigm

Levels	**Low**		**Medium**		**High**		**Σ**
Gender	**B**	**G**	**B**	**G**	**B**	**G**	
Age Early adolescent	359	366	359	323	385	373	2165
Pre adolescent	332	326	332	353	401	358	2102
Σ	691	692	691	676	786	731	4267

Table No. 4.42

Showing mean & SD of each variable

Levels		**a_1**		**a_2**		**a_3**	
Levels of proximity(A)	**Mean**	7.28		17.08		18.96	
	SD	2.14		2.64		3.38	
Gender (B)		**b_1**	**b_2**	**b_1**	**b_2**	**b_1**	**b_2**
	Mean	17.27	17.30	17.27	16.90	19.65	18.77
	S.D	1.64	2.56	2.65	2.69	2.97	3.66
Age (C)		**c_1**	**c_2**	**c_1**	**c_2**	**c_1**	**c_2**
	Mean	18.12	16.45	17.05	17.12	18.95	18.97
	SD	196	1.99	3.13	2.09	3.41	3.40

Multiple comparison of mean for the main effect of grandparental proximity New men Kuel's is used.

Table No. 4.43

Comparison of attitude towards adults between three levels of proximity

Mean	**Ordered mean**		
	7.28	17.08	18.96
a_1 - 7.28	-	-	*
a_2 - 17.08	-	-	*
a_3 - 18.96	-	-	-

Perusal of above table (4.43) reveals that there is a significant difference between three levels of grandparental proximity. On the basis of results it can be inferred that high grandparental proximity promotes attitude towards adults, it is clear from the graph No. 14

The main effect of Gender is significant at .01 level of confidence for mean comparison t-test is used.

Table No. 4.44

Comparison of attitude towards adults between boys and girls of different levels of proximity

Levels of proximity	Gender	No.	Mean	SD	t
Low	**Boys**	40	17.27	1.64	0.46
	Girls	40	17.30	2.56	
Medium	**Boys**	40	17.27	2.65	0.59
	Girls	40	16.90	2.69	
High	**Boys**	40	19.65	2.97	0.74
	Girls	40	18.77	3.66	

t-test reveals that on the different levels of grandparental proximity there is no significant difference in the attitude towards adults in adolescents boys and girls. On the basis of mean values it can be inferred that in high level of grandparental proximity, boys have better attitude towards adults than girls. As decapitated in graph no. 15.

The main effect of age is significant at .01 level of confidence for mean comparison t-test is used.

Table No. 4.45

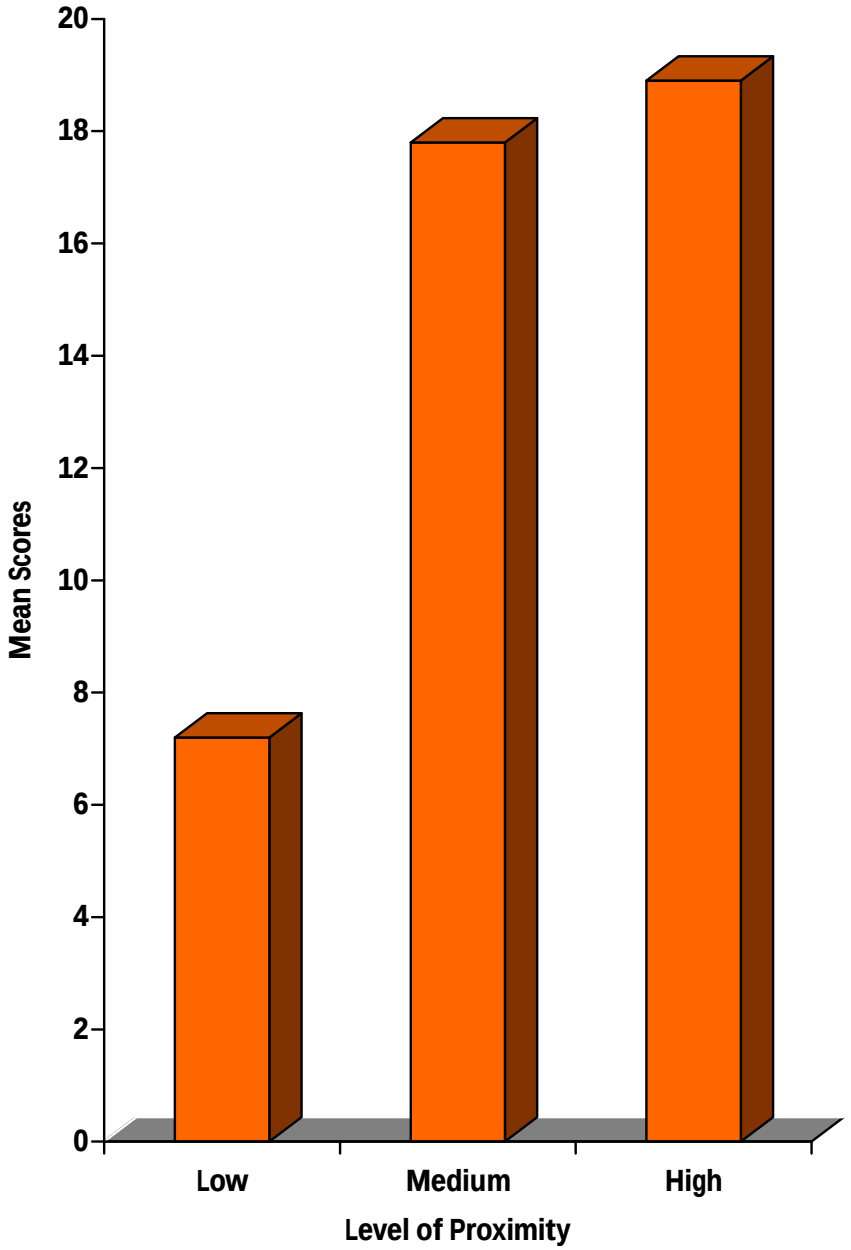
Comparison of attitude towards adults between Early and Pre adolescents of different levels of proximity

Level of Proximity	Age	No	Mean	SD	t
Low	**Early-adolescents**	40	18.12	1.96	0.64
	Pre-adolescents	40	16.45	1.99	
Medium	**Early-adolescents**	40	17.05	3.13	0.58
	Pre-adolescents	40	17.12	2.09	
High	**Early-adolescents**	40	18.95	3.41	0.75
	Pre-adolescents	40	18.97	3.40	

t-test reveals that there is no significant difference in different levels of grand parental proximity on attitude towards adults in adolescents. But on the basis of mean values it can be said that in low level of grandparental proximity of early adolescents have better attitude towards adults and in medium and high levels of grandparental proximity pre adolescents have better attitude towards adults. As it is clear in the graph No. 16

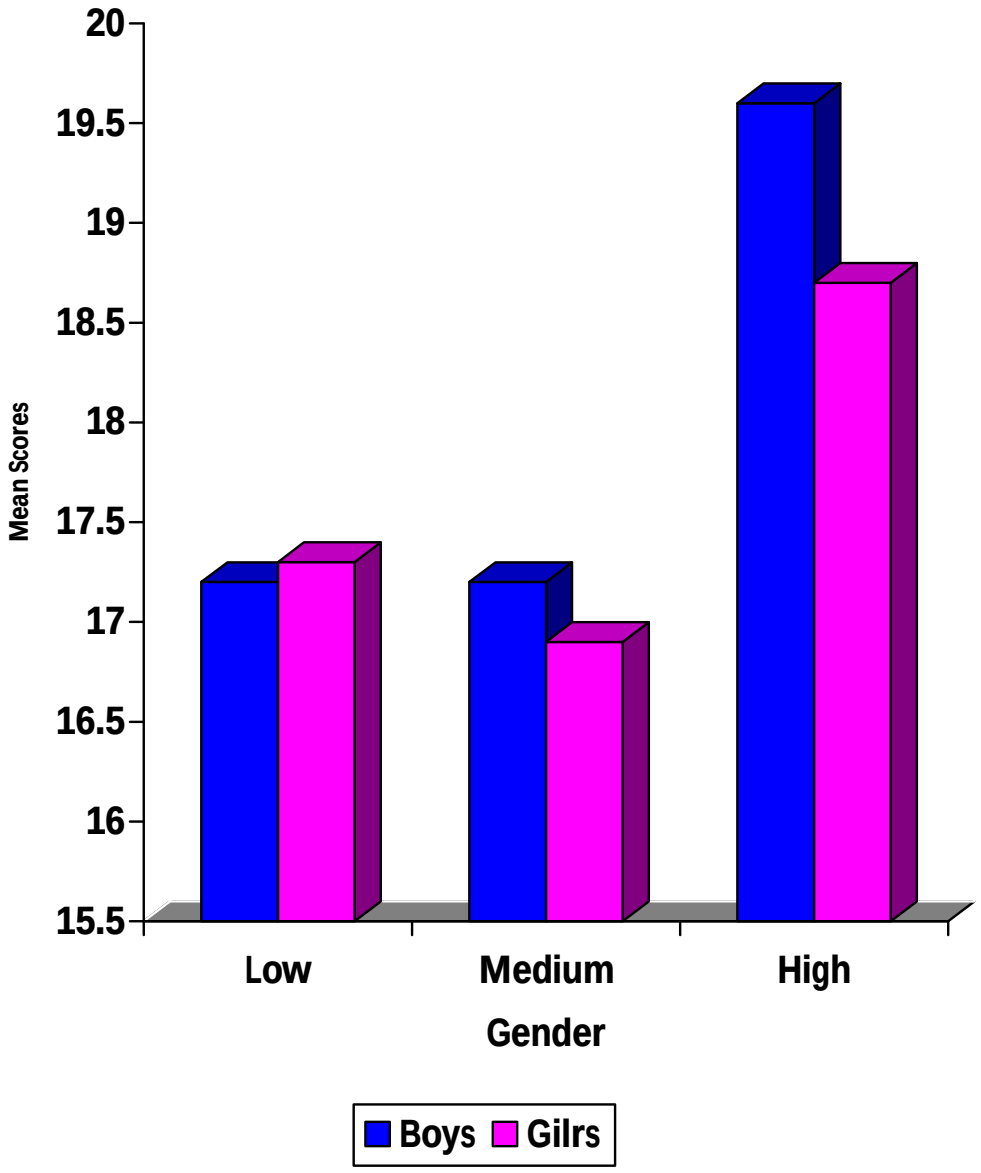
Graph No.14

Comparison of Attitude towards adults between three levels of proximity



Graph No-15

Comparison of Attitude towards adults between two levels of gender



Graph No-16

Comparison of Attitude towards adults between two levels of age