

CHAPTER IV

ANALYSIS &

INTERPRETATION OF DATA

CHAPTER IV

ANALYSIS & INTERPRETATION OF DATA

4.1 Introduction .

4.2 Data analysis & interpretation.

4.3 Results.

CHAPTER IV

ANALYSIS, INTERPRETATION OF DATA

4.1 INTRODUCTION

This chapter consists of presentation & analysis of data, interpretation of results. The collected data using various tools & techniques have been presented & analyzed keeping in mind the objectives of the study. The data were analyzed using appropriate statistical method both 0.05 & 0.01 level of significance was adopted by the investigator in analyzing data.

The main objective of this chapter is presentation & analysis of data interpretation of results for this purpose researcher collected data from various aided & unaided B.Ed. Colleges affiliated with Shivaji University Kolhapur & analyzed it as follows.

The different objectives of research & their analysis is given below.

4.2 DATA ANALYSIS & INTERPRETATIONS

On the basis of figures & tables researcher draw some interpretations

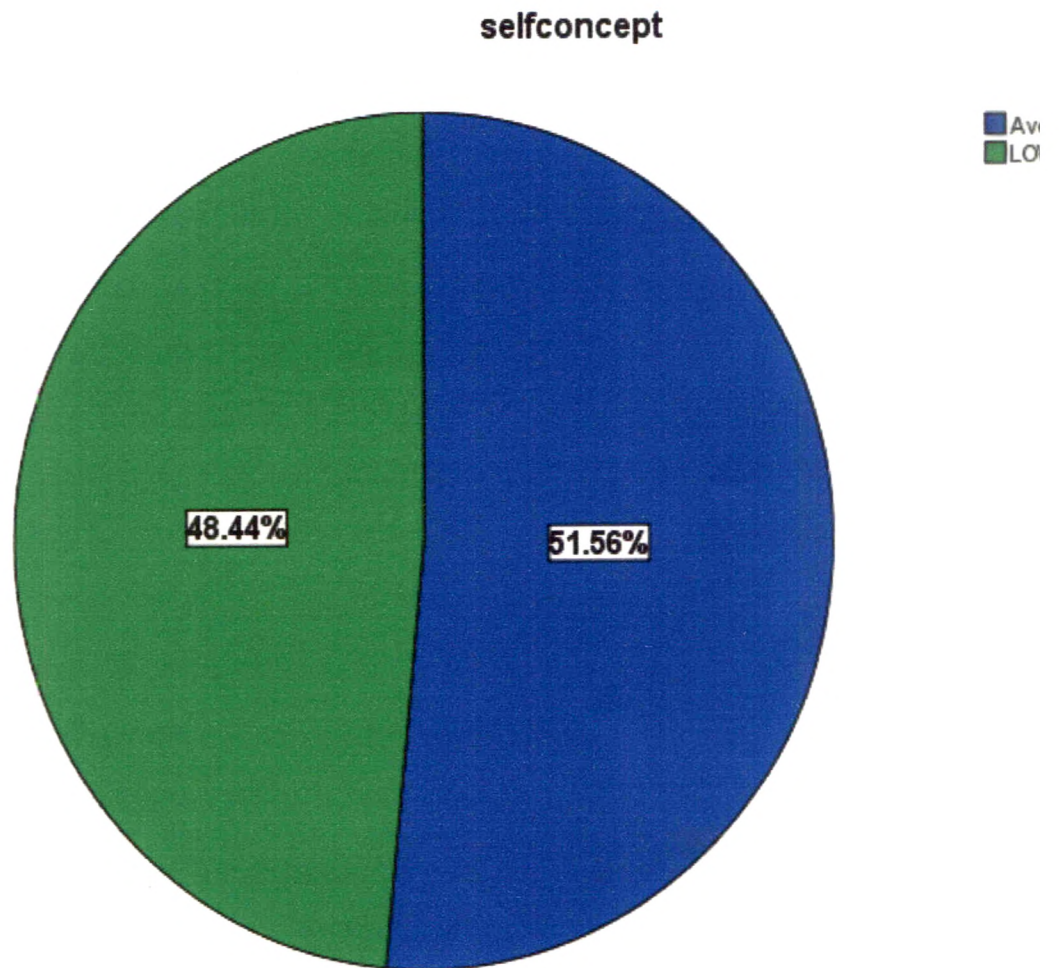


Figure 5.

Self-concept score of Science & Mathematics' methodology student teachers

Table.6

Self-concept score of Science & Mathematics' methodology student teachers

Self-concept	High	Average	Low	Total
No. Of Student	—	99	93	192
Percentage	—	51.56%	48.44%	100%

Observation

It is observed from above table 6. & fig No.5 that out of 192 Science & Mathematics methodology student teachers, 99 (51.56%) have average Self-concept & that of 93(48.44%) have low Self-concept, none of student teacher is found with high Self-concept.

Interpretation:

It is interpreted from above table 6. & fig 4. Science & Mathematics methodology student teachers having average self-concept are more than that of low self-concept, No one is found with high self-concept.

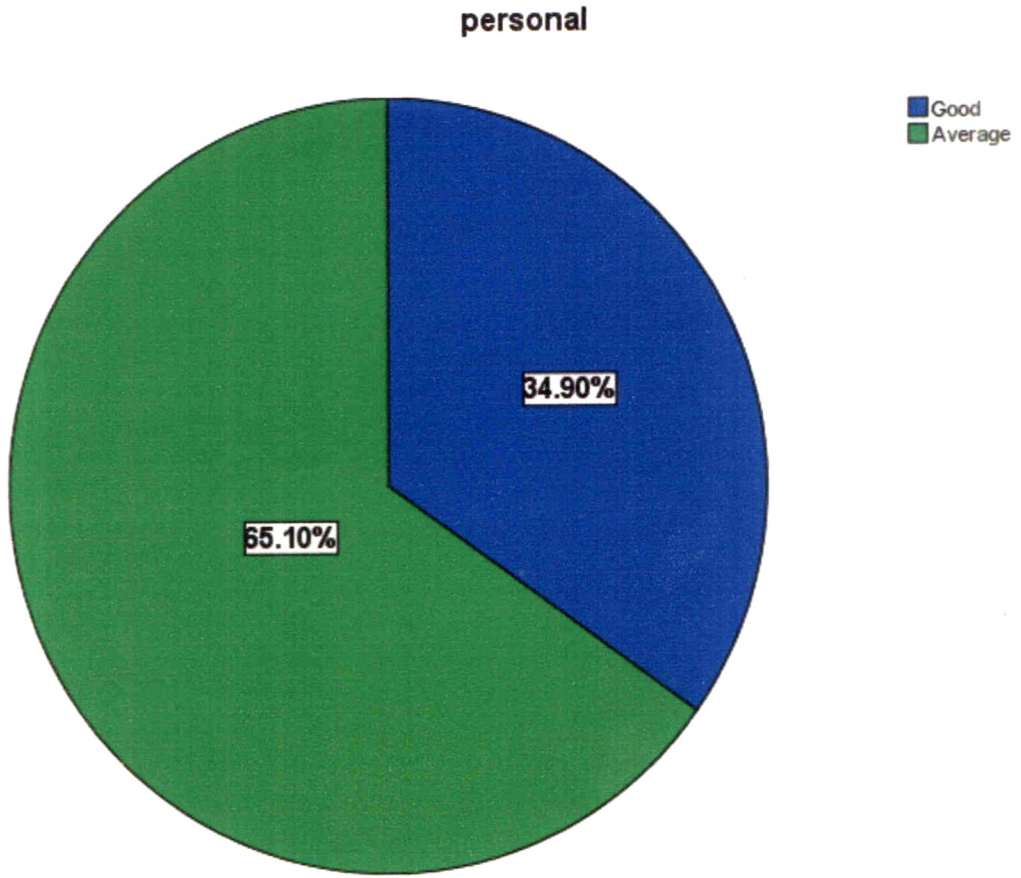


Figure 6

Personal Adjustment score of Science & Mathematics' methodology student teachers

Table.7

**Personal Adjustment score of Science & Mathematics' methodology
student teachers.**

Personal Adjustment	Excellent	Good	Average	Un satisfactory	Very Un satisfactory	Total
No. Of Student	67	–	125	–	–	192
Percentage	34.9%	–	65.1%	–	–	100%

Observation:

It is observed from above table 7. & fig No.6 that out of 192 Science & Mathematics methodology student teachers, 125 (65.1%) have average personal adjustment & that of 67 (34.9%) have excellent personal adjustment, none of student teacher is found with good & Unsatisfactory personal adjustment.

Interpretation:

It is interpreted from above table 7 & fig .6 Science & Mathematics methodology student teachers, having average personal adjustment are more than that of excellent personal adjustment, No one is found with good & unsatisfactory personal adjustment.

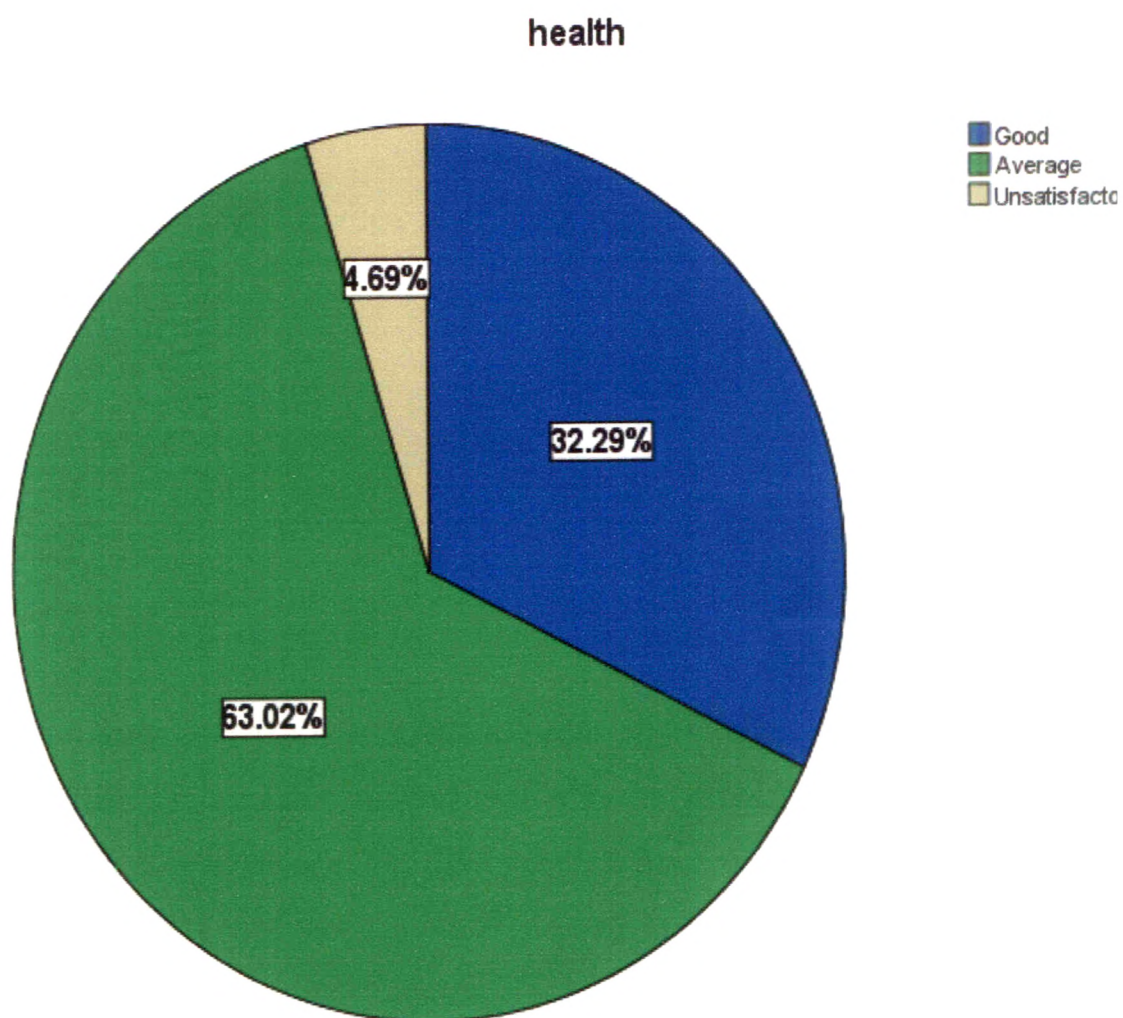


Figure 7

Health Adjustment score of Science & Mathematics' methodology student teachers.

Table.8

**Health Adjustment score of Science & Mathematics' methodology
student teachers.**

Health Adjustment	Excellent	Good	Average	Un satisfactory	Very Un satisfactory	Total
No. Of Student	–	62	121	9	–	192
Percentage	–	32.29%	63.02 %	4.69%	–	100%

Observation:

It is observed from above table 8. & fig No.7 that out of 192 Science & Mathematics methodology student teachers, 121(63.02%) have average Health adjustment & 62(32.29%) have Good health adjustment & remaining 9(4.69%) have Unsatisfactory Health adjustment, None of student teacher is found with Excellent & very Unsatisfactory Health adjustment.

Interpretation:

It is interpreted from above table 8 & fig 7 Science & Mathematics methodology student teachers having average personal adjustment are more than that of good personal adjustment & very few of them having Unsatisfactory Health adjustment. No one is found with good & unsatisfactory Health adjustment.

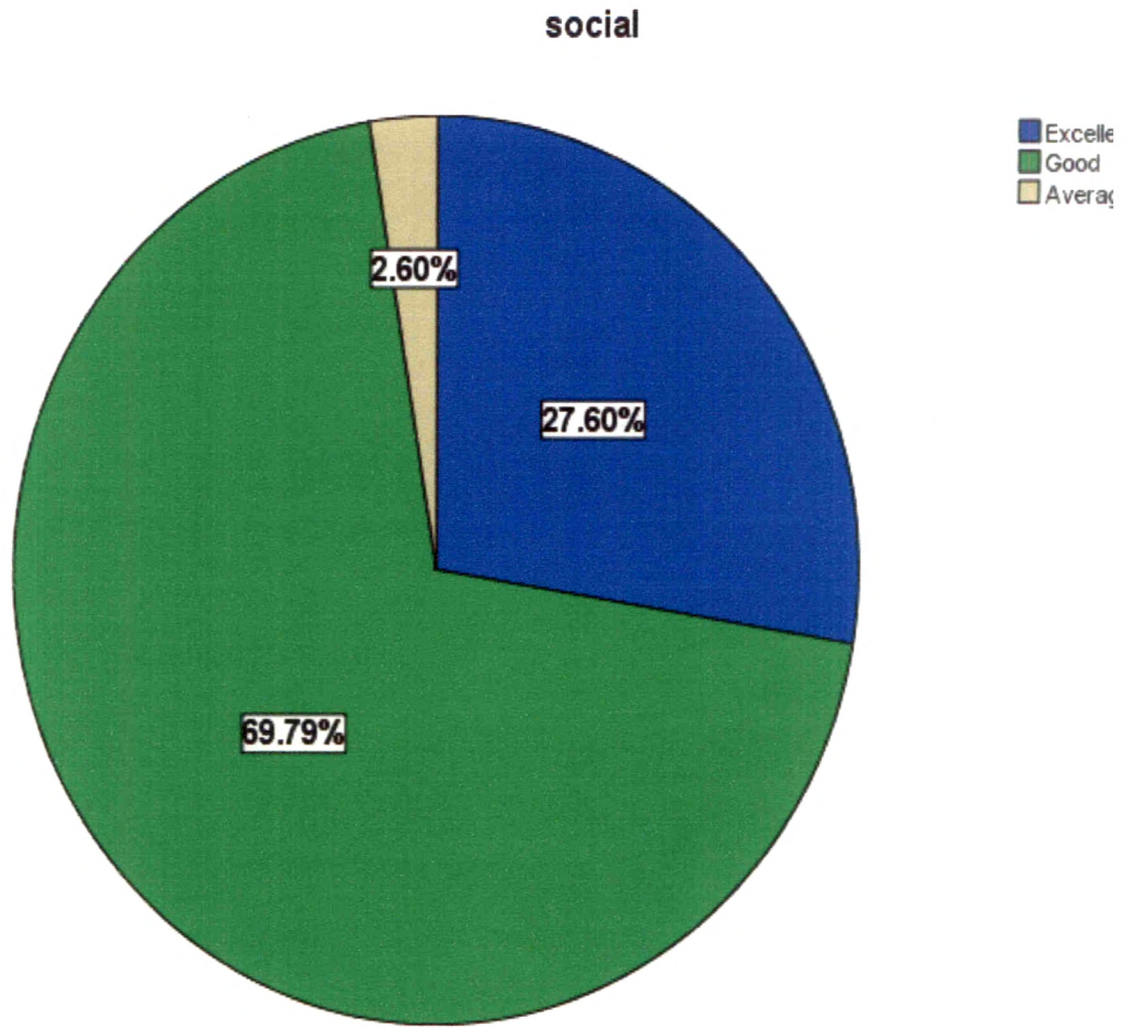


Figure 8

Social Adjustment score of Science & Mathematics' methodology student teachers

Table.9

**Social Adjustment score of Science & Mathematics' methodology
student teachers.**

social Adjustment	Excellent	Good	Average	Un satisfactory	Very Un satisfactory	Total
No. Of Student	53	134	5	–	–	192
Percentage	27.6%	69.79%	2.6 %	–	–	100%

Observation:

It is observed from above table 9. & fig No.8 that out of 192 Science & Mathematics methodology student teachers,134 (69.79%) have good social adjustment & 53(27.6%) have Excellent social adjustment & remaining 5(2.6 %) have average social adjustment, none of student teacher is found with Unsatisfactory social adjustment.

Interpretation:

It is interpreted from above table 9 & fig .8 Science & Mathematics methodology student teachers having good social adjustment are more than that of excellent social adjustment & very few of them having average social adjustment ,No one is found with unsatisfactory social adjustment.

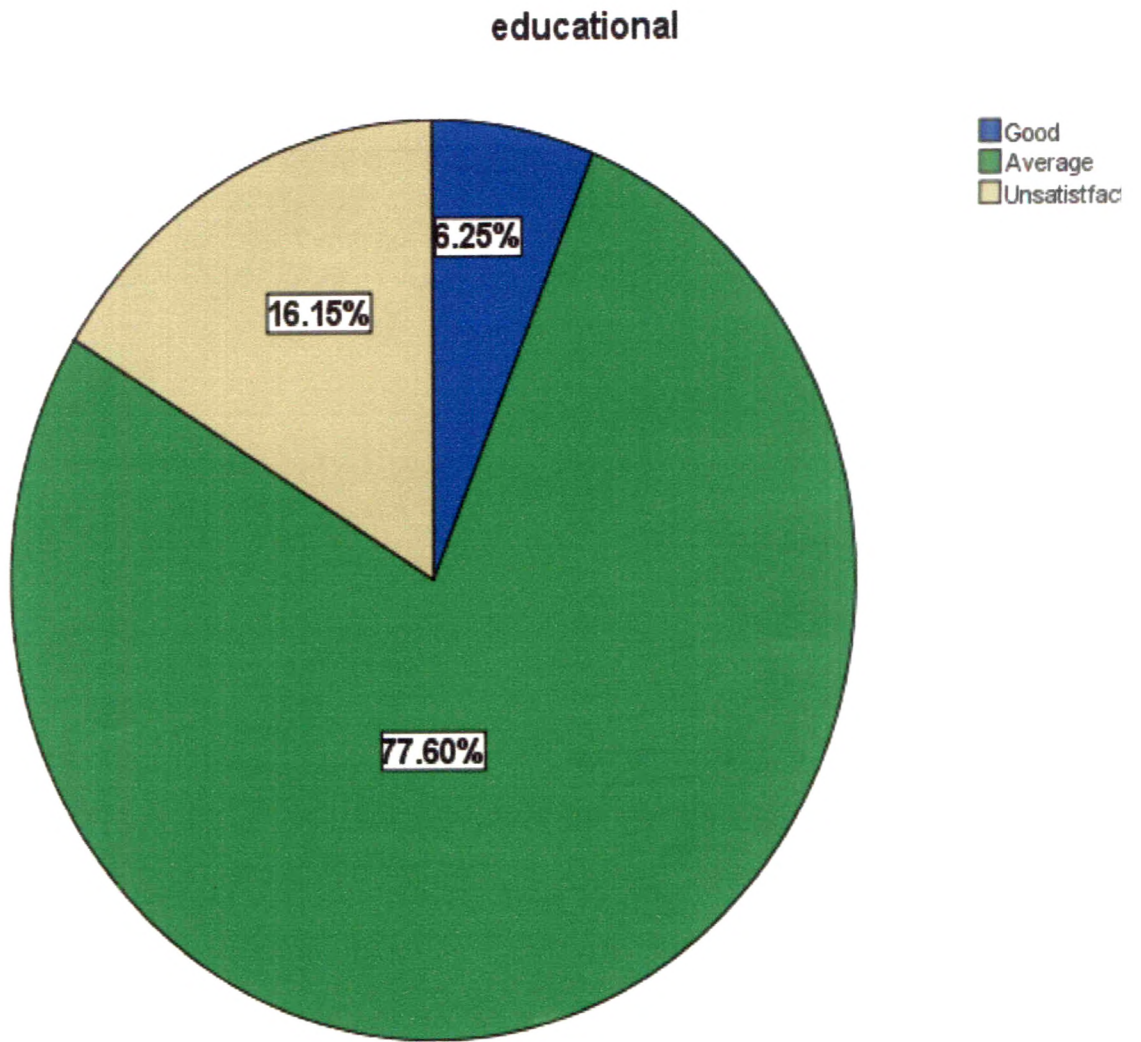


Figure 9

Education Adjustment score of Science & Mathematics' methodology student teachers.

Table.10

Education Adjustment score of Science & Mathematics' methodology student teachers.

Education Adjustment	Excellent	Good	Average	Un satisfactory	Very Un satisfactory	Total
No. Of Student	–	12	149	31	–	192
Percentage	–	6.25%	77.6%	16.15%	–	100%

Observation:

It is observed from above table 10 fig No.9 that out of 192 Science & Mathematics methodology student teachers,149 (77.6%) have average education adjustment & 31(16.15%) have Unsatisfactory education adjustment & remaining 12(6.25%)have Good education adjustment, none of student teacher is found with Excellent & very Unsatisfactory education adjustment.

Interpretation:

It is interpreted from above table10 & fig .9 Science & Mathematics methodology student teacher having average education adjustment are more than that of Unsatisfactory education adjustment & very few of them having good education adjustment. No one is found with Excellent & very unsatisfactory education adjustment.

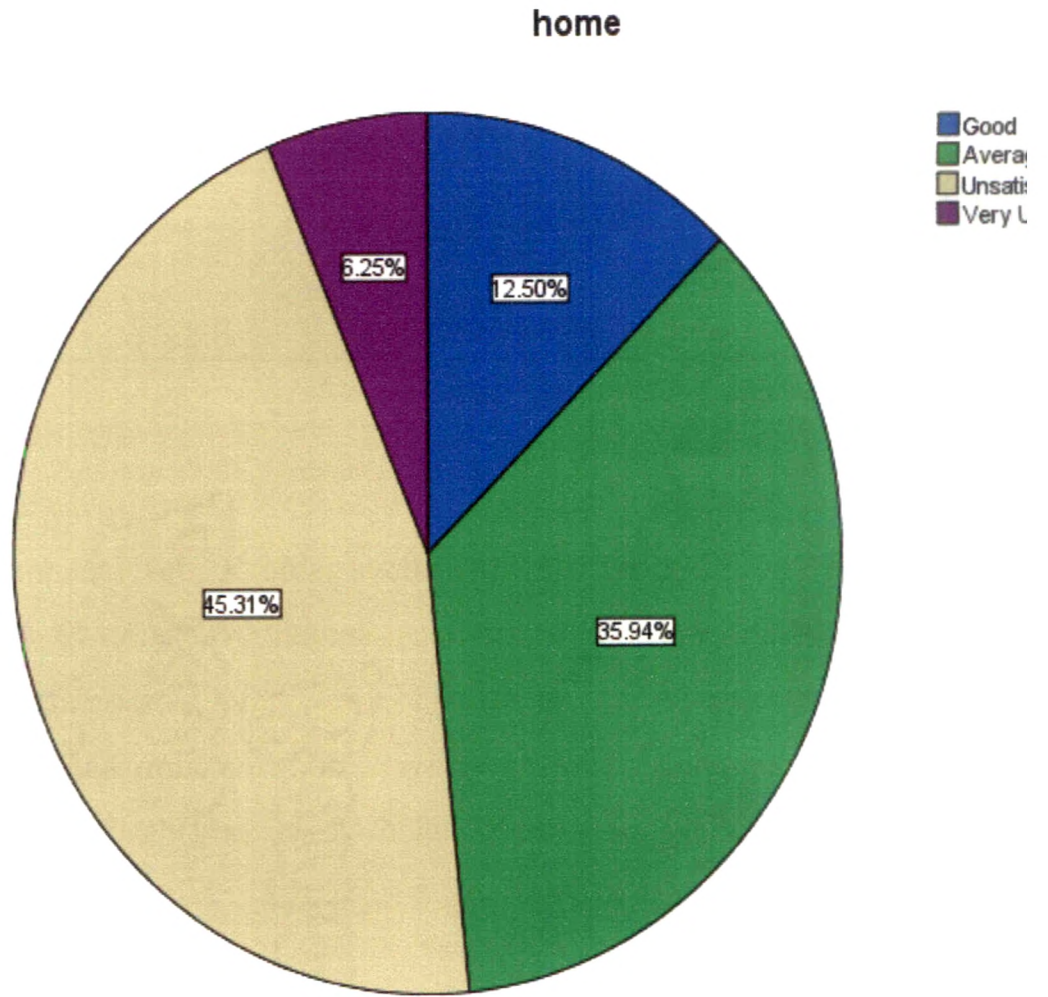


Figure 10

Home Adjustment score of Science & Mathematics' methodology student teachers.

Table.11**Home Adjustment score of Science & Mathematics' methodology student teachers.**

Home Adjustment	Excellent	Good	Average	Un satisfactory	Very Un satisfactory	Total
No. Of Student	–	24	69	87	12	192
Percentage	–	12.50%	35.94%	45.31%	6.25%	100%

Observation:

It is observed from above table 11. & fig No.10 that out of 192 Science & Mathematics methodology student teachers, 87(45.31%) have Unsatisfactory home adjustment & 69(35.94%) have average home adjustment & 24(12.50%) have Good home adjustment & remaining 12(6.25%) very have Unsatisfactory home adjustment none of student teacher is found with Excellent home adjustment.

Interpretation:

It is interpreted from above table 11. & fig No.10 Science & Mathematics methodology student teachers having unsatisfactory home adjustment are more than that of good & average home adjustment & very few of them having very unsatisfactory home adjustment. No one is found with excellent home adjustment.

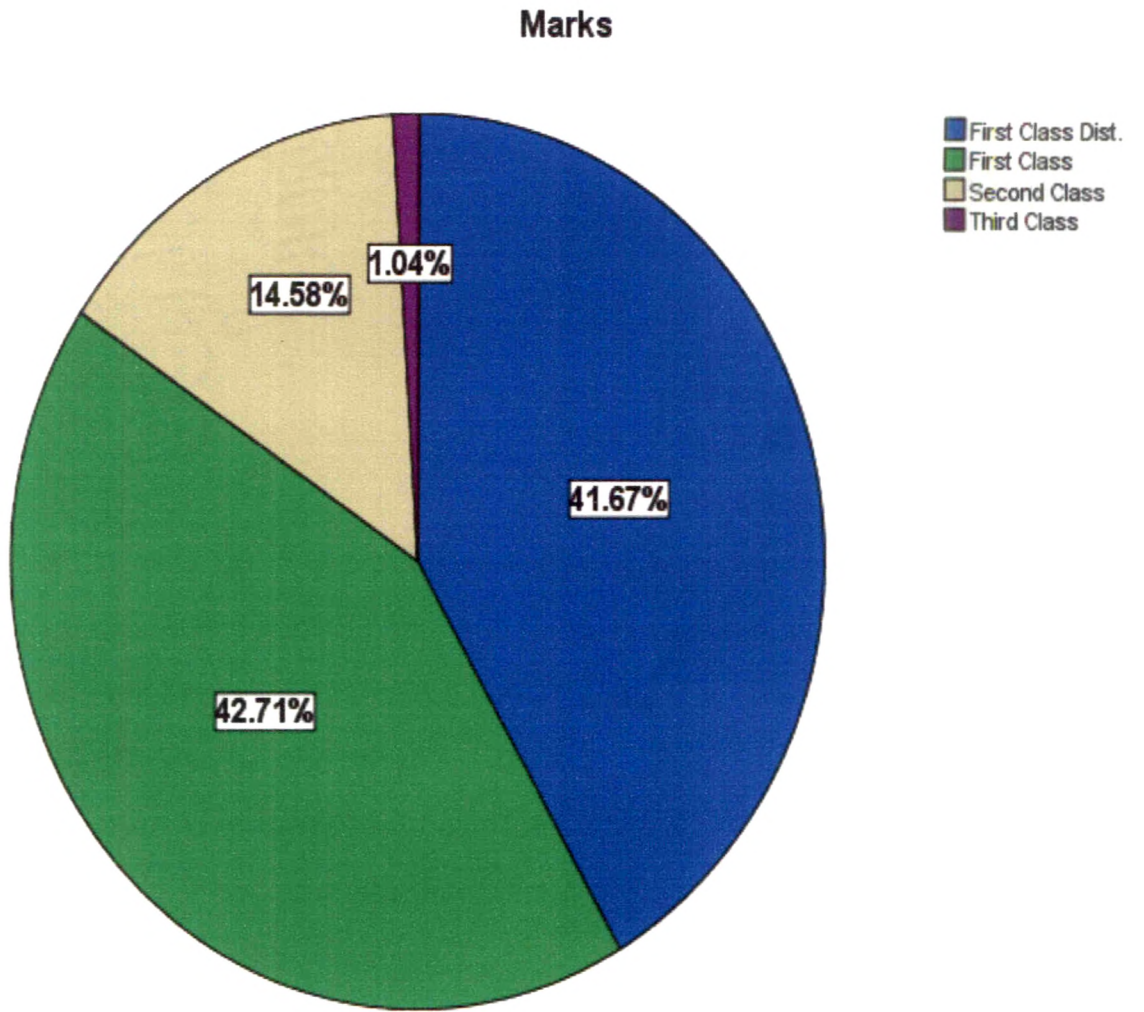


Figure 11

Achievement score of Science & Mathematics' methodology student teachers.

Handwritten signature or text at the bottom left of the page.

Table.12

Achievement score of Science & Mathematics' methodology student teachers.

Marks	First class with Dist	First Class	Second Class	Third Class	Total
No. Of Student	80	82	28	2	192
Percentage	41.7%	42.7%	14.6%	1.0%	100%

Observation:

It is observed from above table 12.& fig No.11 that out of 192 Science & Mathematics methodology student teachers,82(42.7%) have scored first class after that 80(41.7%) have scored First class with Dist & 28(14.6%) have scored second class& remaining 2(1.0%) have scored third class.

Interpretation:

It is interpreted from above table12. & fig .11 Most of student teachers of Science & Mathematics methodology scored first class than that of first class with dist & very few of them scored second class & very few student teachers scored third class i.e. negligible.

TESTING OF HYPOTHESIS

Null Hypothesis 1 : There is no significant relationship/association between self-concept and Health adjustment of science & mathematics student teachers.

Table13. Relationship between self-concept & Health Adjustment score of Science & Mathematics' methodology student teachers.

self-concept	Health Adjustment			Total	Calculated Pearson Chi-square Value	Degree of Freedom	Table v
	Average	Un satisfactory	Very Un satisfactory				0.05 Level
Low	59	33	1	93			
Average	58	41	0	99	1.68	2	5.99
Total	117	74	1	192			

Observation :

It is observed from above table No13. that calculated Pearson Chi-square Value is 1.68 & table value at 0.05 & 0.01 level of significance for degree of freedom 2 is 5.99 & 9.21 respectively.

Interpretation:

From above table No13. it is interpreted that calculated Pearson Chi-square Value is less than table value at both level of significance i.e. 0.05 & 0.01 for 2 degree of freedom , Hence null hypothesis No 1 is accepted , There is no significant relationship/association between self-concept and Health adjustment of science & mathematics student teachers.

Null Hypothesis 2 : There is no significant relationship/association between self-concept and Education adjustment of science & mathematics student teachers.

Table14.

Relationship between self-concept & Education Adjustment score of Science & Mathematics' methodology student teachers .

Self-concept	Educational Adjustment			Total	Calculated Pearson Chi-square Value	Degree of Freedom	Table value	
	Good	Average	Un satisfactory				0.05 Level	0.01 Level
Low	7	73	13	93				
Average	5	76	18	99	1.01	2	5.99	9.21
Total	12	149	31	192				

Observation :

It is observed from above table No14.that calculated Pearson Chi-square Value is 1.01 & table value at 0.05 & 0.01level of significance for degree of freedom 2 is 5.99 & 9.21 respectively

Interpretation:

From above table No 14.it is interpreted that calculated Pearson Chi-square Value is less than table value at both level of significance i.e. 0.05 & 0.01 for 2 degree of freedom ,Hence null hypothesis No 2 is accepted There is no significant relationship/association between self-concept and Education adjustment of science & mathematics student teachers.

Null Hypothesis 3 : There is no significant relationship/association between self-concept and social adjustment of science & mathematics student teachers.

**Table15 .
Relationship between self-concept & social Adjustment score of Science
& Mathematics methodology' student teachers**

self- concept	Social Adjustment			Total	Calculated Pearson Chi-square Value	Degree of Freedom	Table valu	
	Good	Average	Un satisfactory				0.05 level	0.01 L
Low	23	66	4	93	2.56	2	5.99	9.21
Average	30	68	1	99				
Total	53	134	5	192				

Observation :

It is observed from above table No 15.that calculated Pearson Chi-square Value is 2.56 & table value at 0.05 & 0.01level of significance for degree of freedom 2 is 5.99 & 9.21 respectively.

Interpretation:

From above table No15. it is interpreted that calculated Pearson Chi-square Value is less than table value at both level of significance i.e. 0.05 & 0.01 for 2 degree of freedom, Hence null hypothesis No 3 is accepted ,There is no significant relationship/association between self-concept and social adjustment of science & mathematics student teachers.

Null Hypothesis 4 : There is no significant relationship/association between self-concept and personal adjustment of science & mathematics student teachers.

Table16.

Relationship between self-concept & personal Adjustment score of Science & Mathematics' methodology student teachers

self-concept	Personal Adjustment		Total	Calculated Pearson Chi-square Value	Degree of Freedom	Table value	
	Good	Average				0.05 Level	0.01 Level
Low	34	59	93	0.22	1	3.84	6.65
Average	33	66	99				
Total	67	125	192				

Observation:

It is observed from above table No16.that calculated Pearson Chi-square Value is 0.22 & table value at 0.05 & 0.01level of significance for degree of freedom 1 is 3.84 & 6.65 respectively.

Interpretation:

From above table No 16. it is interpreted that calculated Pearson Chi-square Value is less than table value at both level of significance i.e. 0.05 & 0.01 for 1 degree of freedom, Hence null hypothesis No 4 is accepted , There is no significant relationship/association between self-concept and personal adjustment of science & mathematics student teachers.

Null Hypothesis 5 : There is no significant relationship/association between self-concept and Health adjustment of science & mathematics student teachers.

Table17.

Relationship between self-concept & Health Adjustment score of Science & Mathematics' methodology student teachers

self-concept	Health Adjustment				Total	Calculated Pearson Chi-square value	Degree of Freedom	Table
	good	Ave	Un satisfactory	Very Un satisfactory				0.05 Leve
Low	12	34	42	5	93	0.26	3	7.82
Average	12	35	45	7	99			
Total	117	69	87	12	192			

Observation:

It is observed from above table No17. that calculated Pearson Chi-square Value is 0.26 & table value at 0.05 & 0.01level of significance for degree of freedom 3 is 7.82 & 11.34 respectively.

Interpretation:

From above table No 17.it is interpreted that calculated Pearson Chi-square Value is less than table value at both level of significance i.e. 0.05 & 0.01 for 3 degree of freedom, hence null hypothesis No 5 is accepted , There is no significant relationship/association between self-concept and Health adjustment of science & mathematics student teachers.

Null hypothesis 6.: There is no significant relationship/association between self-concept and achievement of science & mathematics student teachers.

Table18.

Relationship between Self-concept & Marks(Achievement) score of Science & Mathematics' methodology student teachers

Self-concept	Marks(Achievement)				Total	Calculated Pearson Chi-square value	Degree of Freedom	Table value	
	First Class Dist.	First Class	Second Class	Third Class				0.05 Level	0.01 Level
Low	20	50	21	02	93				
Average	60	32	07	00	99	32.79	3	7.82	11.34
Total	80	82	28	02	192				

Observation:

It is observed from above table No18. that calculated Pearson Chi-square Value is 32.79 & table value at 0.05 & 0.01 level of significance for degree of freedom 3 is 7.82 & 11.34 respectively.

Interpretation:

From above table No 18.it is interpreted that calculated Pearson Chi-square Value is greater than table value at both level of significance i.e. 0.05 & 0.01 for 3 degree of freedom, hence null hypothesis No 6 is rejected. ,There is significant relationship/ association between self-concept and achievement of science & mathematics student teachers.

Null hypothesis 7: There is no significant relationship/ association between Health adjustment and achievement of science & mathematics student teachers.

Table 19.

Relationship between Health Adjustment and achievement score of science & mathematics methodology student teachers

Health Adjustment	Marks				Total	Calculated Pearson Chi-square value	Degree of Freedom	Table value	
	First Class Dist.	First Class	Second Class	Third Class				0.05 Level	0.01 Level
Average	48	49	18	02	117	2.80	6	12.59	16.81
Un satisfactory	32	32	10	00	74				
Very Un satisfactory	00	01	00	00	01				
Total	80	82	28	02	192				

Observation:

It is observed from above table No 19.that calculated Pearson Chi-square Value is 2.80 & table value at 0.05 & 0.01level of significance for degree of freedom 6 is 12.59 & 16.81 respectively.

Interpretation:

From above table No 19.it is interpreted that calculated Pearson Chi-square Value is less than table value at both level of significance , hence null hypothesis No 7 is accepted, There is no significant relationship/ association between Health adjustment and achievement of science & mathematics student teachers.

Null hypothesis 8 : There is no significant relationship/ association between Educational adjustment and achievement of science & mathematics student teachers.

Table 20.

Relationship between Education Adjustment and achievement score of Science & Mathematics' methodology student teachers

Educational Adjustment	Marks				Total	Calculated Pearson Chi-square value	Degree of Freedom	Table value	
	First Class Dist.	First Class	Second Class	Third Class				0.05 level	0.01 Level
Good	04	04	03	01	12				
Average	62	64	22	01	149				
In satisfactory	14	14	03	00	31	8.63	6	12.59	16.81
Total	80	82	28	02	192				

Observation:

It is observed from above table No 20. that calculated Pearson Chi-square Value is 8.63 & table value at 0.05 & 0.01 level of significance for degree of freedom 6 is 12.59 & 16.81 respectively.

Interpretation:

From above table No 20. it is interpreted that calculated Pearson Chi-square Value is less than table value at both level significance, hence null hypothesis No 8 is accepted, There is no significant relationship/ association Between Educational adjustment and achievement of science & mathematics student teachers.

Null hypothesis 9: There is no significant relationship/ association between Social adjustment and achievement of science & mathematics student teachers.

Table 21.

Relationship between Social Adjustment and achievement score of science & mathematics methodology student teachers.

Social Adjustment	Marks				Total	Calculated Pearson Chi-square value	Degree of Freedom	Table value	
	First Class Dist.	First Class	Second Class	Third Class				0.05 level	0.01 level
Excellent	22	25	06	00	53				
Good	54	56	22	02	134				
Average	04	01	00	00	05	4.99	6	12.59	16.81
Total	80	82	28	02	192				

Observation:

It is observed from above table No 21. that calculated Pearson Chi-square Value is 4.99 & table value at 0.05 & 0.01 level of significance for degree of freedom 6 is 12.59 & 16.81 respectively.

Interpretation:

From above table No 21. it is interpreted that calculated Pearson Chi-square Value is less than table value at both level significance i.e. 0.05 & 0.01 for 6 degree of freedom, hence null hypothesis No 9 is accepted, There is no significant relationship/ association between Social adjustment and achievement of science & mathematics student teachers.

Null hypothesis 10 : There is no significant relationship/ association between Personal adjustment and achievement of science & mathematics student teachers

Table 22.

Relationship between Personal Adjustment and achievement score of science & mathematics methodology student teachers.

Personal adjustment	Marks				Total	Calculated Pearson Chi-square value	Degree of Freedom	Table value	
	First Class Dist.	First Class	Second Class	Third Class				0.05 Level	0.01 Level
Good	26	31	10	00	67				
Average	54	51	18	02	125	1.58	3	7.82	11.34
Total	80	82	28	02	192				

Observation:

It is observed from above table No 22. that calculated Pearson Chi-square Value is 1.58 & table value at 0.05 & 0.01 level of significance for degree of freedom 3 is 7.82 & 11.34 respectively.

Interpretation:

From above table No 22. it is interpreted that calculated Pearson Chi-square Value is less than table value at both level significance i.e. 0.05 & 0.01 for 3 degree of freedom, hence null hypothesis No 10 is accepted, There is no significant relationship/ association between Personal adjustment and achievement of science & mathematics student teachers.

Null hypothesis 11 : There is no significant relationship/ association between Home adjustment and achievement of science & mathematics student teachers.

Table 23 .

Relationship between Home Adjustment and achievement score of science & mathematics methodology student teachers.

Home Adjustment	Marks				Total	Calculated Pearson Chi-square value	Degree of Freedom	Table value
	First Class Dist.	First Class	Second Class	Third Class				0.05 Level
Good	12	08	04	00	24	10.33	9	16.99
Average	25	27	15	02	69			
Un satisfactory	38	41	08	00	87			
Very Un satisfactory	05	06	01	00	12			
Total	80	82	28	02	192			

Observation:

It is observed from above table No 23 that calculated Pearson Chi-square Value is 10.33 & table value at 0.05 & 0.01 level of significance for degree of freedom 9 is 16.99 & 21.67 respectively.

Interpretation: From above table No 23. it is interpreted that calculated Pearson Chi-square Value is less than table value at both level significance i.e. 0.05 & 0.01 for 9 degree of freedom, hence null hypothesis No 11, There is no significant relationship/ association between Home adjustment and achievement of science & mathematics student teachers.

Table 24.

Relationship among the self-concept, adjustment and academic achievement of Science & mathematics methodology student teachers.

Variables	Multiple correlation value
1. Self-concept	0.22
2. Adjustment	
3. Academic Achievement	

Observation:

It is observed from above Table No 24. that calculated Multiple correlation value is 0.22

Interpretation:

From above table No 24. it is interpreted that there is positive and significant relationship among the self-concept, adjustment and academic achievement

4.3 RESULTS

Results

1. Science & Mathematics methodology student teachers having average self-concept are more than that of low self-concept ,No one is found with high self-concept. (Table No 6 .)

2. Science & Mathematics methodology student teachers having average personal adjustment are more than that of excellent personal adjustment, No one is found with good & unsatisfactory personal adjustment.

(Table No 7.)

3. Science & Mathematics methodology student teachers having average Health adjustment are more than that of good Health adjustment & very few of them having Unsatisfactory Health adjustment. No one is found with good & unsatisfactory Health adjustment.

(Table No 8 .)

4. Science & Mathematics methodology student teachers having good social adjustment are more than that of excellent social adjustment & very few of them having average social adjustment , No one is found with unsatisfactory social adjustment.

(Table No 9.)

5. Science & Mathematics methodology student teachers having average education adjustment are more than that of Unsatisfactory education adjustment & very few of them having good education adjustment. No one is found with Excellent & very unsatisfactory education adjustment.

(Table No

10.)

6. Science & Mathematics methodology student teachers having Unsatisfactory home adjustment are more than that of good & average home adjustment & very few of them having very Unsatisfactory home adjustment. No one is found with excellent home adjustment.

(Table No 11.)

7. Most of student teachers of Science & Mathematics methodology scored first class than that of first class with distinction & very few of them scored second class & very few student teachers scored third class i.e. very negligible.

(Table No12

.)

8. Calculated Pearson Chi-square Value is less than table value at both level of significance i.e. 0.05 & 0.01 for 2 degree of freedom , Hence null hypothesis No 1 is accepted , There is no significant relationship/association between self-concept and Health adjustment of science & mathematics methodology student teachers.

(Table No13)

9. Calculated Pearson Chi-square Value is less than table value at both level of significance i.e. 0.05 & 0.01 for 2 degree of freedom , Hence

null hypothesis No 2 is accepted, There is no significant relationship/ association between self-concept and Education adjustment of science & mathematics methodology student teachers.

(Table No 14)

10. Calculated Pearson Chi-square Value is less than table value at both level of significance i.e. 0.05 & 0.01 for 2 degree of freedom , Hence null hypothesis No 3 is accepted ,There is no significant relationship /association between self-concept and social adjustment of science & mathematics methodology student teachers.

(Table No15.)

11. Calculated Pearson Chi-square Value is less than table value at both level of significance i.e. 0.05 & 0.01 for 1 degree of freedom, Hence null hypothesis No 4 is accepted , There is no significant relationship/ association between self-concept and personal adjustment of science & mathematics student teaches.

(Table No 16.)

12. Calculated Pearson Chi-square Value is less than table value at both level of significance i.e. 0.05 & 0.01 for 3 degree of freedom, hence null hypothesis No 5 is accepted , There is no significant relationship /association between self-concept and Health adjustment of science & mathematics methodology student teachers.

(Table No 17)

13. Calculated Pearson Chi-square Value is greater than table value at both level of significance i.e. 0.05 & 0.01 for 3 degree of freedom, hence null hypothesis No 6 is rejected. ,There is significant relationship/

association between self-concept and achievement of science & mathematics methodology student teachers

(Table No 18).

14. Calculated Pearson Chi-square Value is less than table value at both level of significance i.e. 0.05 & 0.01 for 6 degree of freedom, hence null hypothesis No 7 is accepted, There is no significant relationship/ association between Health adjustment and achievement of science & mathematics methodology student teachers.

(Table No 19)

15. Calculated Pearson Chi-square Value is less than table value at both level significance, hence null hypothesis No 8 is accepted , There is no significant relationship/ association Between Educational adjustment and achievement of science & mathematics methodology student teachers.

(Table No 20.)

16. Calculated Pearson Chi-square Value is less than table value at both level significance i.e. 0.05 & 0.01 for 6 degree of freedom, hence null hypothesis No 9 is accepted , There is no significant relationship/ association between Social adjustment and achievement of science & mathematics methodology student teachers.

(Table No 21)

17. Calculated Pearson Chi-square Value is less than table value at both level significance i.e. 0.05 & 0.01 for 3 degree of freedom, hence null hypothesis No 10 is accepted, There is no significant relationship/

association between personal adjustment and achievement of science & mathematics methodology student teachers.

(Table No 22)

18. Calculated Pearson Chi-square Value is less than table value at both level significance i.e. 0.05 & 0.01 for 9 degree of freedom, hence null hypothesis No 11, There is no significant relationship/ association between home adjustment and achievement of science & mathematics methodology student teachers .

(Table No 23)

19. There is positive and significant relationship among the self-concept, adjustment and academic achievement of science & mathematics methodology student teacher

(Table No 24.)