

*Analyses &
Interpretation of Data*

CHAPTER - IV

ANALYSIS AND INTERPRETATION OF DATA

"Analysis is the ordering – the braking down of data into constituent parts in order to obtain answer to research questions"

- F.N. Kerlinger (1964)

The present chapter is meant for the analysis and interpretation of the obtained data. In this chapter, analysis of the status of self-concept, academic anxiety and achievement of students of Kendriya Vidyalayas and Missionary School studying in class VII was made and each hypothesis is tested to arrive to conclusion.

Analysis of the status of self-concept, academic anxiety and total achievement of Kendriya Vidyalayas.

Comparison of self-concept, academic anxiety and achievement scores for different Kendriya Vidyalayas.

Keeping in mind, the maximum and minimum scores of self-concept, academic anxiety and achievement based on equal range. A classification was made i.e. 'high' 'moderate' and 'low'.

The mean scores of the self-concept, academic anxiety and achievement of students were obtained then they were identified as 'high' 'moderate' and 'low' based on the above classification and presented in table-4.

Table-4

Mean Scores and Status of Self-concept, Academic Anxiety and Achievement of Students of Kendriya Vidyalayas.

KENDRIYA VIDYALAYAS	
Variables	Mean and Status
Self-concept	84.32
Academic Anxiety	12.62
English	57.55
Hindi	58.18
Sanskrit	57.08
Mathematics	42.33
Science	48.47
Social Science	53.02
Total Achievement	312.15

Table-4 indicates that the means of self-concept are 84.32 and academic anxiety are 12.62. The status of both scores were average and moderate. The mean scores for languages were 57.55 for English, 58.18 for Hindi and 57.08 for Sanskrit and for Mathematics, Science, Social Studies they were 42.33, 48.47 and 53.02, respectively.

The above result may be attributed to environment of the school as well as to lack attention of teachers towards their students in Kendriya Vidyalayas.

Analysis of the status of self-concept academic anxiety and achievement of students of Missionary school

Comparison of self-concept, academic anxiety and told achievement scores for different Missionary Schools.

The maximum and minimum scores of self-concept, academic anxiety and achievement, a classification was calculated and based on equal range, the scores were classified into 'high', 'moderate' and 'low'.

The means scores of the self-concept, academic anxiety and achievement of student of Missionary School students were obtained then they were identified as 'high', 'moderate' and 'low' based on the above classification and presented in table - 5

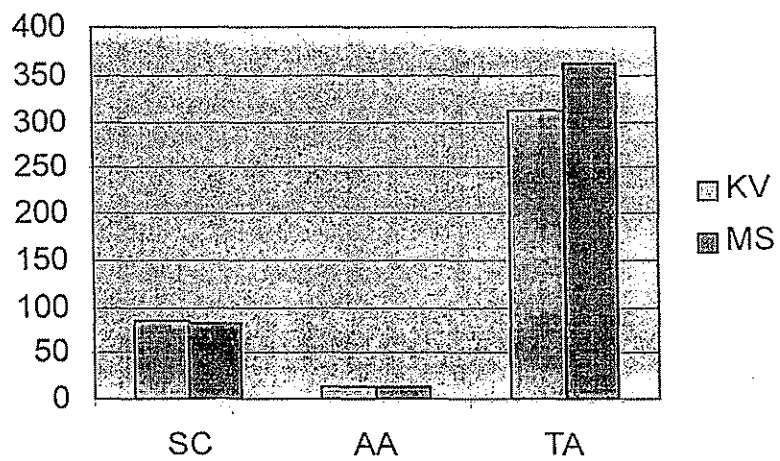
Table-5

Mean Scores and Status of Self-concept, Academic Anxiety and Achievement of Students of Missionary Schools

MISSIONARY SCHOOL	
Variables	Mean and status
Self-concept	82.69
Academic Anxiety	12.31
English	58.97
Hindi	64.79
Sanskrit	60.79
Mathematics	55.23
Science	59.00
Social Science	62.20
Total Achievement	361.82

Table - 5 indicates that the means scores and status of self-concept, academic anxiety and total achievement of students are 82.69, 12.31 and 361.82 respectively. It shows that Missionary School students have moderate status with the respect to self-concept and academic anxiety and also show the means score for languages, were 58.97 for English, 64.79 for Hindi and 60.79 for Sanskrit and for Mathematics, Science and Social Studies, they were 55.23, 59.00 and 62.20 respectively.

Comparison of Mean Scores of Self-concept Academic Anxiety & Achievement of Students of Kendriya Vidyalayas & Missionary Schools



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The above result may be due to the congenial and cordial atmosphere of Missionary school. And may be used information technology in teaching-learning procedure.

Analysis of difference in self-concept, academic anxiety and total achievement between Kendriya Vidyalayas and Missionary school students.

Comparison of self-concept, academic anxiety and achievement of Kendriya Vidyalayas and Missionary School students.

The compare self-concept, academic anxiety and achievement of Kendriya Vidyalayas and Missionary School students, the mean, SD and t- value were computed and the results are shown in table 6, 7, 8.

Table-6
Mean, SD and t-value for the Scores of Self-concept of Students of Kendriya Vidyalayas and Missionary Schools.

Variables	Kendriya Vidyalay (N-146)		Missionary school (N-169)		t-value
	Mean	SD	Mean	SD	
Self-concept	84.32	10.51	82.69	8.90	1.489

Table 6 indicates the difference between the means scores of the self-concept of Kendriya Vidyalayas and Missionary Schools. This result indicates Kendriya Vidyalayas students are better than that of Missionary Schools students with respect to self-concept. But these is no significant difference between mean scores of self-concept of

Kendriya Vidyalayas and Missionary Schools students. The obtained t-value 1.489 is less than the table value 1.97 at 0.05 level of significance for 313 degree of freedom. This result may be due to intake of students of similar background and socio-economic status.

Table - 7
Mean, SD and t-value for the Scores of Academic Anxiety of
Students of Kendriya Vidyalayas and Missionary Schools.

Variables	Kendriya Vidyalayas (N-146)		Missionary School (N-169)		t-value
	Mean	S D	Mean	S D	
Academic Anxiety	12.62	2.72	13.31	2.97	0.959

Table - 7 indicates the difference between the means scores of the academic anxiety of student of Kendriya Vidyalayas and Missionary School, which shown there is no significant difference between the both means of Kendriya Vidyalayas and Missionary school students as the obtained t-value 0.959 is less than the table value 1.97 at 0.05 level of significance for 313 degree of freedom.

This result also may be due to similarity of students in both the schools with respect to socio-economic status, background of parents.

Table - 8
Mean, SD and t-value for the Scores of Total Achievement of
Students of Kendriya Vidyalayas and Missionary Schools

Variables	Kendriya Vidyalayas (N-146)		Missionary Schools (N-169)		t-value
	Mean	S D	Mean	S D	
English	57.55	17.31	58.97	14.14	0.799
Hindi	58.18	18.01	64.79	16.33	3.411**
Sanskrit	57.08	17.73	60.64	19.43	1.693
Maths	42.33	23.80	55.23	19.50	5.286**
Science	48.47	20.53	59.00	19.93	4.610**
So. Studies	53.02	45.76	62.20	23.63	2.279**
Total Achievement	312.15	97.03	361.82	95.32	4.574**

*Significant at 0.05 level.

**Significant at 0.01 level.

Table - 8 indicates the difference between the mean scores of the achievement in different subjects for Kendriya Vidyalayas and Missionary Schools students. The result indicates that there is a significant difference between mean scores of total achievement of Kendriya Vidyalayas and Missionary Schools students. Missionary Schools students are better than that of Kendriya Vidyalayas students with respect to total achievement. The obtained t-value 4.574 is more than the table value 2.59 at 0.01 level of significance for 313 degree of freedom. Therefore, the difference is statistically significant.

While the result with respect to all the subject status that Missionary Schools are better than Kendriya Vidyalayas. In case Hindi, Mathematics and Science result is significant at 0.01 level and for social studies it is significant at 0.05 level (The table values are 1.97 and 2.59 for 0.05 and 0.01 level at 313 degree of freedom respectively).

The above result may be due to result oriented effort of the Missionary Schools, where may be they emphasis more on the practices, numeration etc.

Analysis of the Sex difference in self-concept, academic Anxiety and achievement of Kendriya Vidyalayas Students.

Sex difference in self-concept, academic anxiety and achievement of Kendriya Vidyalayas students.

To compare self-concept, academic anxiety and achievement of boys and girls of Kendriya Vidyalayas, the mean, SD and t-value were computed and the results are shown in table-9.

Table-9
Mean SD, and t- value for the Scores of Self-concept, Academic Anxiety and Total Achievement of Boys and Girls of Kendriya Vidyalayas

Variables	Boys (N-79)		Girls (N-67)		t-value
	Mean	S D	Mean	S D	
Self-concept	81.30	10.48	87.87	9.46	3.941**
Academic Anxiety	12.65	2.60	12.60	2.88	0.107
Achievement	293.72	100.93	333.88	88.10	2.538**

** Significant at 0.01 level.

Comparison of Mean Scores of Self-concept Academic Anxiety & Achievement of Boys & Girls of Kendriya Vidyalayas

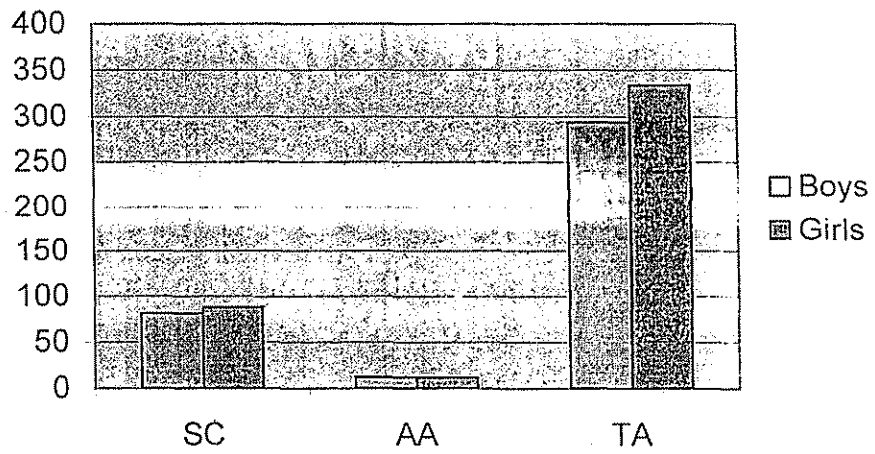


Table - 9 indicates the sex difference in self-concept, academic anxiety and achievement of Kendriya Vidyalayas students. The results shows that there is significant difference between boys and girls with respect to self-concept and total achievement. Because both obtained values 3.941 and 2.538 are more than table value 2.61 at 0.01 level of significance for 144 degree of freedom. The result also shows that there is no significant sex difference in Kendriya Vidyalayas with the respect to academic anxiety.

Therefore, in case of self-concept and achievement, girls are better than boys. The result may be attributed to over confidence of boys and sincerity and effort of girls of Kendriya Vidyalayas. It also focuses equal opportunity give both the sexes in Kendriya Vidyalayas.

Analysis of the sex difference in self-concept academic anxiety and total achievement of Missionary Schools students.

Sex difference in self-concept, academic anxiety and achievement of Missionary Schools students.

To compare the self-concept, academic anxiety and achievement of boys and girls of Missionary Schools, the mean, SD and t-value were computed and the results are shown in table -10.

Table - 10
Mean, SD and t-value for the Scores of Self-concept, Academic Anxiety and Total Achievement of Boys and Girls of Missionary Schools.

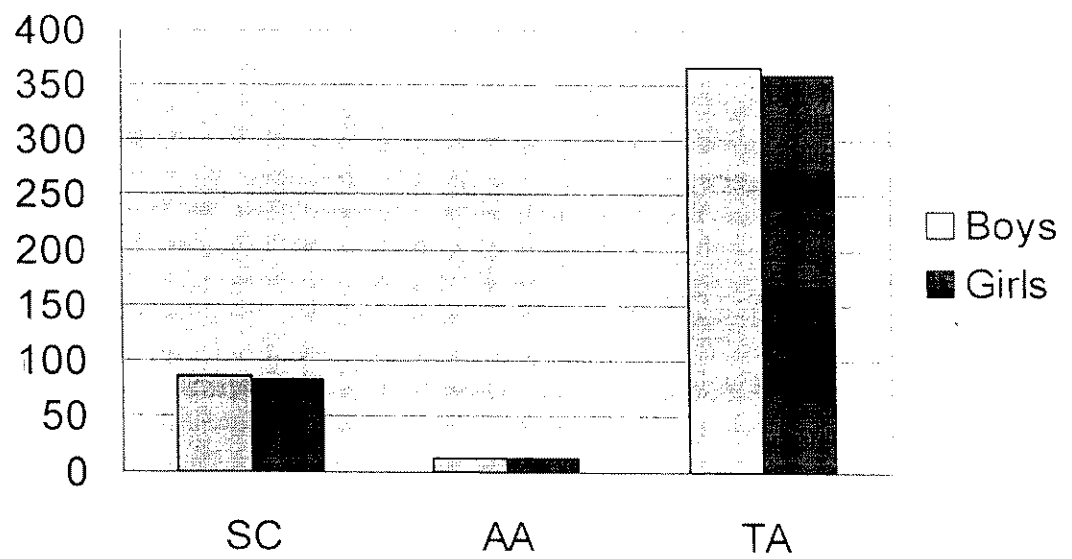
Variables	Boys (N-64)		Girls (N-105)		t-value
	Mean	S D	Mean	S D	
Self-concept	84.50	8.64	81.58	8.91	2.090*
Academic Anxiety	11.61	2.80	12.74	3.00	2.443*
Achievement	366.88	99.06	358.74	93.32	0.537

* Significant at 0.05 level.

Table-10 indicates sex difference of Missionary Schools students with respect to self-concept, academic anxiety and total achievement. The above results indicates that there is significant sex difference in self-concept and academic anxiety. The obtained value of Self-concept 2.090 and of Achievement Anxiety 2.443 are more than the table value 1.97 at 0.05 level of significance for 167 degree of freedom. And also the result shows that there is no significant difference between boys and girls with the respect to achievement in case of Missionary Schools.

In case of self-concept, boys are better than girls and boys have less academic anxiety than that of girls. But with the respect to achievement there is no significant difference between boys and girls of Missionary Schools.

Comparison of Means Scores of Self-concept Academic Anxiety & Achievement of Boys & Girls of Missionary Schools.



The result of superiority of the boys with the respect to self-concept and academic anxiety in Missionary Schools may be due to gender bias i.e. importance gives to the boys than the girls.

Analysis of the sex difference in self-concept, academic anxiety and total achievement of Kendriya Vidyalayas and Missionary Schools together.

Sex difference in self-concept, academic anxiety and total achievement of Kendriya Vidyalayas and Missionary Schools together.

To compare self-concept, academic anxiety and total achievement of total boys and girls of both the schools, the mean SD, and t-value were computed and the results show in table-11.

Table - 11
Mean, SD and t-value for the Scores of Self-concept, Academic Anxiety and Total Achievement of Kendriya Vidyalayas and Missionary Schools together

Variables	Boys (N-143)		Girls (N-172)		t-value
	Mean	S D	Mean	S D	
Self-concept	82.73	9.79	84.03	9.61	1.181
Academic Anxiety	12.18	2.73	12.69	2.94	1.563
Total Achievement	326.46	106.21	349.06	91.87	2.024*

* Significant at 0.05 level.

Table-11 show the result related the sex difference of total students with respect to self-concept, academic anxiety and total achievement. Which shows that there is no significant sex difference in self-concept and academic anxiety and in case of total achievement, there is significant sex difference, because the calculated value 2.024 is more than the table value 1.97 at 0.05 level of significance for 313 degree of freedom.

Since, both the schools follow CBSE syllabus, the present result shows the superiority of girls. Instead of boys, may be due to effort and sincerity of girls.

Analysis of relationship between self-concept, academic anxiety and achievement of students of Kendriya Vidyalayas and Missionary Schools.

Relationship between self-concept and academic anxiety, self-concept and achievement, and academic anxiety and achievement.

To find out the interrelationship between self-concept, academic anxiety and total achievement, the correlation were computed and the results are shown in table - 12.

Table-12
Correlational value of Self-concept, Academic Anxiety and Total Achievement of Kendriya Vidyalayas and Missionary Schools together.

Variables	Self-concept	Academic Anxiety	Total Achievement
Self-concept	1.000	-0.346**	0.226**
Academic Anxiety		1.000	-0.182**
Total Achievement			1.000

** Significant at 0.01 level.

Table-12 indicates the negative and low correlation between self-concept and academic anxiety, and academic anxiety and total achievement of students of Kendriya Vidyalayas and Missionary Schools together. The above results are statistically significant at 0.01 level. Since the obtained values are more than the table value 0.128 at 0.01 level of significance for 313 degree of freedom.

The result reveals that the students whose academic anxiety is higher, the self-concept is lower and whose self-concept is higher, their academic anxiety is lower. Psychologically this phenomenon is current trend. This may be due to over emphasis of parents and teacher on the students for great achievement for which anxiety becomes more.

In case of correlation between self-concept and total achievement there is significant positive low correlation.

Analysis of relationship with self-concept and academic anxiety with languages (English, Hindi, Sanskrit) of students of Kendriya Vidyalayas and Missionary School together.

Relationship between self-concept, academic anxiety and languages (English, Hindi, Sanskrit).

To find out the relationship between self-concept, academic anxiety and languages achievement in English, Hindi and Sanskrit, correlation were computed and the results are shown in table - 13.

Table-13
Inter Correlation between Self-concept Academic Anxiety and
Achievement in Languages (English, Hindi, Sanskrit) in Kendriya
Vidyalayas and Missionary Schools together

Variables	English	Hindi	Sanskrit
Self-concept	.202**	.093	.156**
Academic Anxiety	-.171**	.002	-.105*

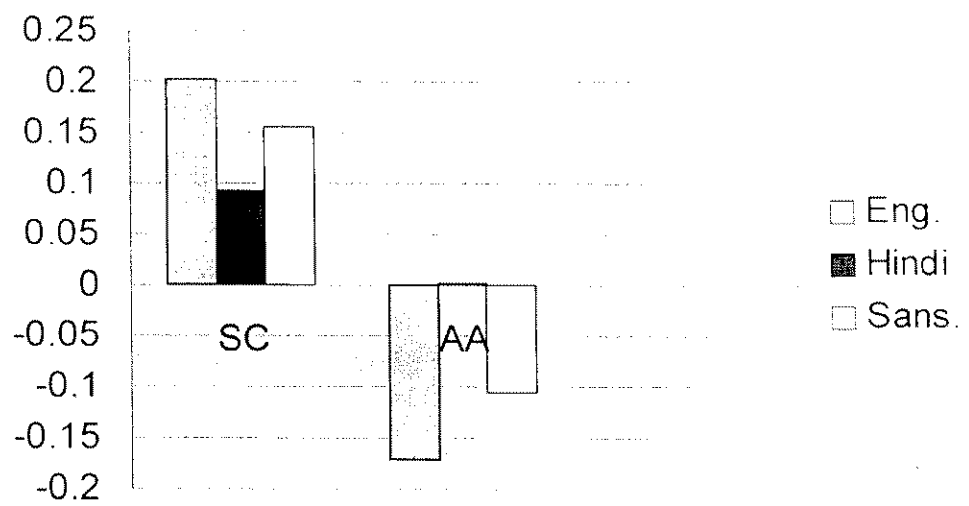
* Significant at 0.05 level.

** Significant at 0.01 level.

Table - 13 reveal that there is significant positive and low correlation between self-concept and English and Sanskrit. Because the obtained values 0.202 and 0.156 are more than the table values 0.128 at 0.01 level of significance for 313 degree of freedom. In the same way, there is significant negative and low correlation between academic anxiety and English and Sanskrit. Because the obtained value - 0.171 and -0.105 are more than the table value .128 at 0.01 level of significance for 313 degree of freedom.

Therefore, those students who have higher self-concept that their achievement is better in English and Sanskrit. But the students' academic anxiety is not related to achievement in English and Sanskrit i.e. may be those students, who are anxious they have achieved better in the above two languages. Hindi may be mother tongue of many students that why neither self-concept nor anxiety effects its achievement much.

Intern Correlation between Self-concept and Anxiety of Kendriya Vidyalayas & Missionary Schools Students with Languages



Analysis of relationship self-concept and academic anxiety with the other subject (Mathematics, Science, Social Studies) for the students of Kendriya Vidyalayas and Missionary School together.

The Relationship between self-concept, academic anxiety with other subjects (Mathematics, Science, and Social Studies).

To find out the relationship between self-concept academic anxiety and achievement in other subjects (Mathematics, Science, Social Studies) correlation were computed and the results are shown in table-14.

Table-14

Inter correlation between Self-concept, Academic Anxiety and Achievement in Mathematics, Science, Social Studies for Kendriya Vidyalayas and Missionary School together.

Variables	Mathematics	Science	Social Studies
Self-concept	.212**	.218*	.196**
Academic Anxiety	-.154**	-.142*	-.061

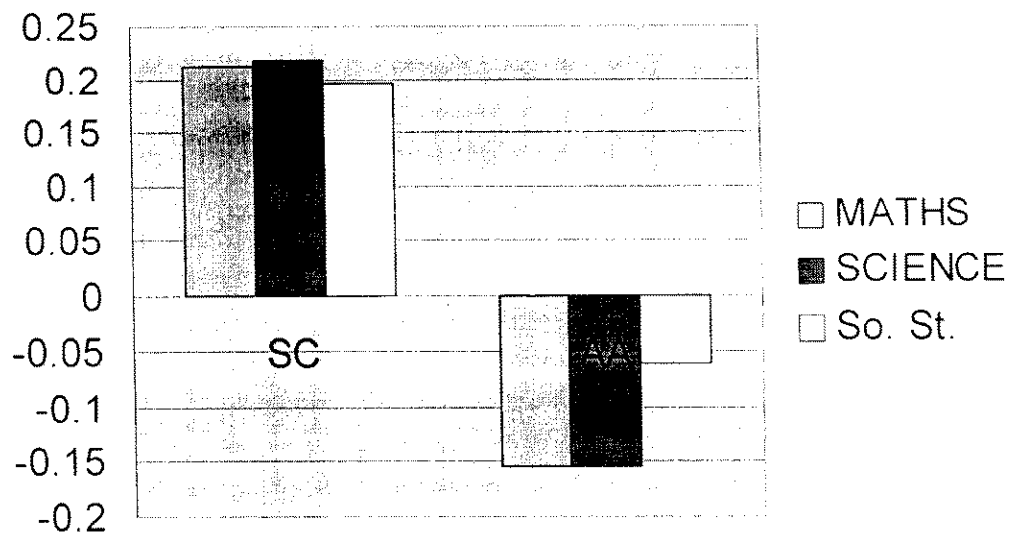
* Significant at 0.05 level.

** Significant at 0.01 level.

Table-14 indicates that there is significant correlation between self-concept and other subject i.e. Mathematics, Science and Social Studies, which are significant at 0.01 level as the obtained values are 0.212, 0.218 and 0.196 of Mathematics, Science and Social Studies, respectively. All these values are more than the table value 0.128.

In case of academic anxiety except social studies it is also significantly correlated with mathematics and sciences at 0.01 and 0.05 level of

**Intern Correlation between Self-concept Academic Anxiety of
Kendriya Vidyalayas & Missionary Schools Students with
Mathematics, Science & Social Studies.**



significance. (Table value 0.698 and 0.128 is at 0.05 and 0.01 level of significance for 313 degree of freedom).

Analysis of academic anxiety for high and low self-concept students.

Comparison of students of high and low self-concept with respect to academic anxiety of Kendriya Vidyalayas and Missionary Schools together.

To compare high and low self-concept of Kendriya Vidyalayas and Missionary school students together, the mean, SD and t- value were computed and the result is shown in table - 15

Table-15

Mean, SD and t- value of Students of High and Low Self-concept, with respect to Academic Anxiety of Kendriya Vidyalayas and Missionary Schools together

Self-concept	Academic Anxiety		
	Mean	SD	t-value
High (N-50)	10.60	23.78	6.041**
Low (N-48)	13.60	2.08	

** Significant at 0.01 level.

Table - 15 indicates the mean scores of high and low self-concept students with respect to their academic anxiety. The result shows that those students who have low self-concept, they have more academic anxiety. The obtained value 6.041 is more than the table value 2.63 at 0.01 level of significance for 96 degree of freedom.

The above result is according to the psychological trend i.e. the students having high self-concept have better understanding about them, they have positive thinking therefore they have anxiety of desirable level.

Analysis of total achievement for high and low self-concept students.

Comparison of students of high and low self-concept with respect to total achievement of Kendriya Vidyalayas and Missionary Schools.

To compare the achievement of high and low self-concept students for Kendriya Vidyalayas and Missionary School students together, the mean, SD and t-value were computed and the result is shown in table-16.

Table - 16
Mean, SD and t- value of Students of High and Low Self-concept with the respect to Total Achievement of Kendriya Vidyalayas and Missionary Schools together

Self-concept	Total Achievement		
	Mean	SD	t-value
High (N-50)	360.80	86.76	2.903**
Low (N-48)	304.79	103.77	

** Significant at 0.01 level.

Table -16 indicates the Mean scores of total achievement with respect to high and low self-concept students. The result shows that those students, who have high self-concept, their achievement is higher. Because the obtained value 2.903 is more than the table value 2.63 at 0.01 level significance for 96 degree of freedom.

The above result may be due to their clear perception and understanding of themselves and the subjects they studied.