CHAPTER – IV

ANALYSIS & INTERPRETATION

Creativity is an overused expression in education. One often hears that the goal of schooling is to promote creativity in students. Creativity refers to the ability to create or discover something that is novel and has some value for the society. Novel means the unusual nature of the thing that is created. The emphasis is on the production of something new. Equally important is the value which means that products of creativity should be some value to human beings.

Creativity is essentially based on the ability of divergent thinking, psychologists are of the view that components such as intelligence, knowledge and motivation are linked to creativity. In fact intelligence involves cognition and convergent thinking i.e. from of thinking which is needed in a situation or a problem where there is only one acceptable answer or acceptable answers. The emphasis here is on acceptable and that too acceptable within the limits of our present knowledge and information creativity is directly linked to knowledge and motivation. Creative individuals spend an enormous amount of time in their works and in general, tend to be satisfied only with originality. Thus you have seen that apart from divergent thinking abilities creativity requires above average intelligence, deep knowledge and higher motivation. It simply means that divergent thinking abilities, intelligence, knowledge and motivation help us to understand creativity and to identify individual difference in creativity.

We often refer to academic achievement as the marks secured in a subject or subjects. It is the acquired potential (knowledge and capabilities) in a subject or subjects. Along with knowledge the student is expected to attain related capabilities. In fact ability is an essential condition for learning and abilities related to intelligence, creativity and aptitude are important for academic achievement.

In educational process, academic achievement is the paramount significance. In present day society individual achievement largely leads to status and power rather than the ascribed qualities. In a formal system of education, academic achievement at school or in academic achievement at school or in college provide possibilities of access to power situations. The formal education system has its own hierarchy based on academic achievement and performance.

After the data has been collected the next step in the research process is analysis. Data consists of scores, frequencies or some type of responses in the form of numbers. They usually have quantitative meaning of some sort and the usual approach is to perform an appropriate type of statistical analysis which is done by Descriptive statistics and inference statistics.

In the present research the descriptive statistics that are used are mean, S.D., percentage and correlation of the collected data.

Thus data collected for the study was treated, scored and analyzed using descriptive which helped objective interpretation.

Table No. 1

Distribution of the Sample of the study group

Sr. No.	No. of students		Total
	Male	Female	
1.	104	56	160

Observation and interpretation:

From the above Table No.I it is clear that the no. of male student teachers selected for the study is 104 and the no. of female student teachers is 56.

Table No. 2

Area-wise Distribution of the Sample in the study group

Sr. No.	Area	No. of the student teachers	Percentage
1.	Rural	75	46.87
2.	Urban	85	53.13
Total		160	100.00

Observation and interpretation:

Table No. 2 shows the Area wise distribution of the sample selected for the study there are 75 student teachers from rural area i.e (46.87) and 85 student teachers from urban area i.e. (53.13).

Table No. 3

Table showing overall Academic Achievement and Creativity

Sr. No.	Variables	No. of students	Mean
1.	Academic achievement	160	80.45
2.	Creativity		
	Fluency	160	50.04
	Flexibility	160	49.83
	Originality	160	50.28

Observation and interpretation:

From the above Table No. 3 it is clear that the average academic achievement of total 160 student teachers is 80.45 whereas the average creativity which includes fluency is 50.04 flexibility is 49.83 originality of the sample is 50.28.

Table No. 4

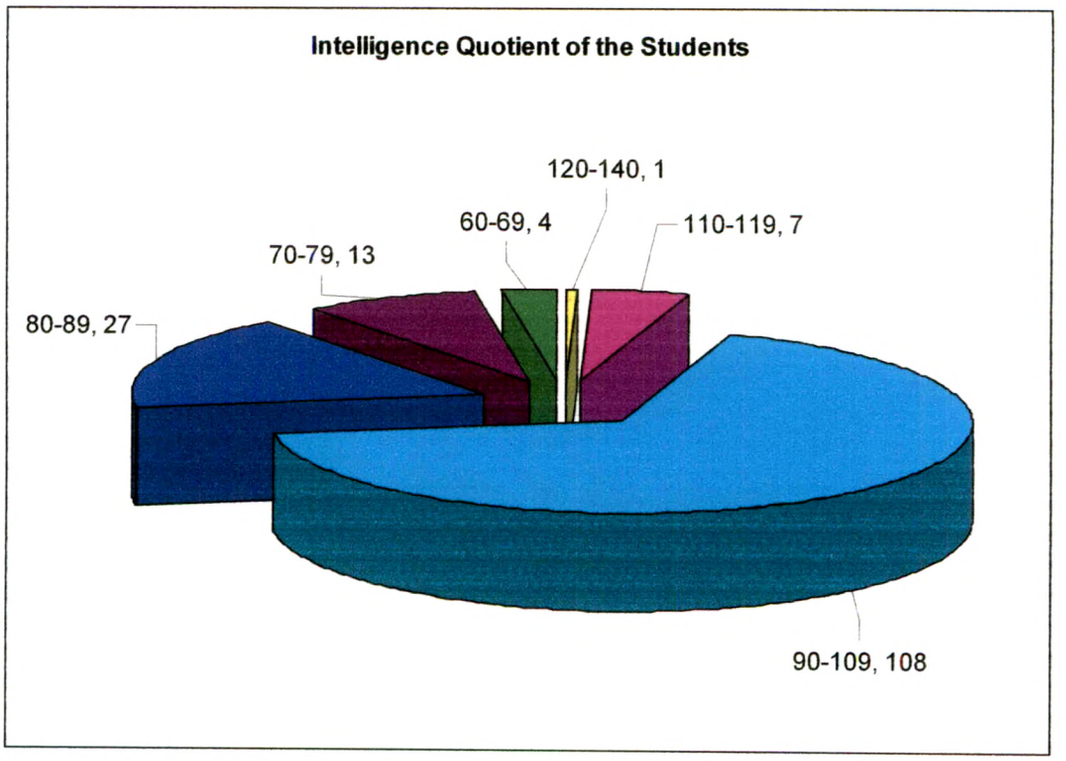
Table Showing Intelligence Quotient of the Students

Sr. No.	I.Q. Range	No. of students	Percentage of the students
1.	120-140	1	0.62
2.	110-119	7	4.4
3.	90-109	108	67.5
4.	80-89	27	16.9
5.	70-79	13	8.13
6.	60-69	04	2.5
	Total	160	100.00

Observation and interpretation:

From above table and Graph, it is clear that there are 108 students i.e. (67.5%) in the 90-109 I.Q. range, 27 students i.e. (16.9%) in the 80-89 I.Q. range. Similarly there are 13 students i.e. (8.13%) in 70-79 I.Q. range, 7 students i.e. (4.4%) in 110-119 I.Q. range and there is only 1 student i.e. (0.62%) in the I.Q. range 120-140.

From above it can be concluded that the no. of students in I.Q. range 120-140 is very less and the number of more in I.Q. range 90-109.


Intelligence Quotient of the Students
120-140, 1
60-69, 4
110-119, 7
70-79, 13
80-89, 27
90-109, 108

Graph 1

Table No. 5

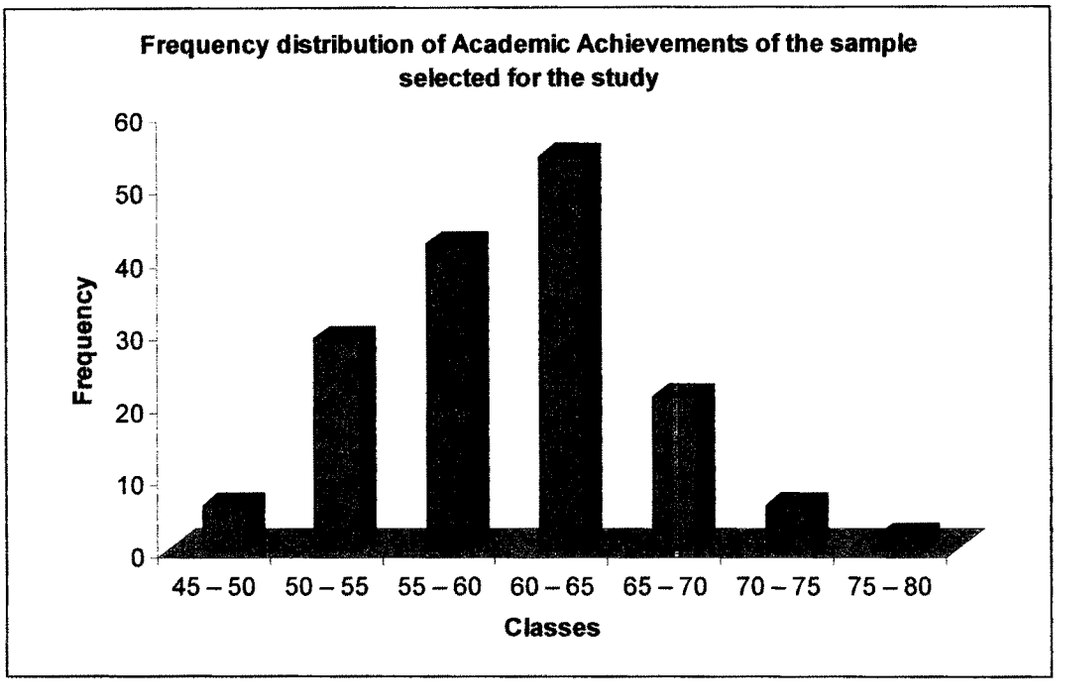
Frequency distribution of Academic Achievements of the sample selected for the study

Classes	Mid value	Upper limit	Frequency	Cumulative frequency
45 – 50	47.5	50	6	160
50 – 55	52.5	55	29	154
55 – 60	57.5	60	42	125
60 – 65	62.5	65	54	83
65 – 70	67.5	70	21	29
70 – 75	72.5	75	6	8
75 – 80	77.5	80	2	2
Total			160	

Observation and interpretation:

The below Graph No. 2 shows the frequency distribution of academic achievement of the sample which is selected for the study.

From the Graph it can be concluded that there are 60% of the total population has academic achievement between 55-65 and 91.25% of the total population has academic achievement between 50-70.


Frequency distribution of Academic Achievements of the sample selected for the study
Frequency
60
50
40
30
20
10
0
45 – 50
50 – 55
55 – 60
60 – 65
65 – 70
70 – 75
75 – 80
Classes

Graph 2

Table No. 6

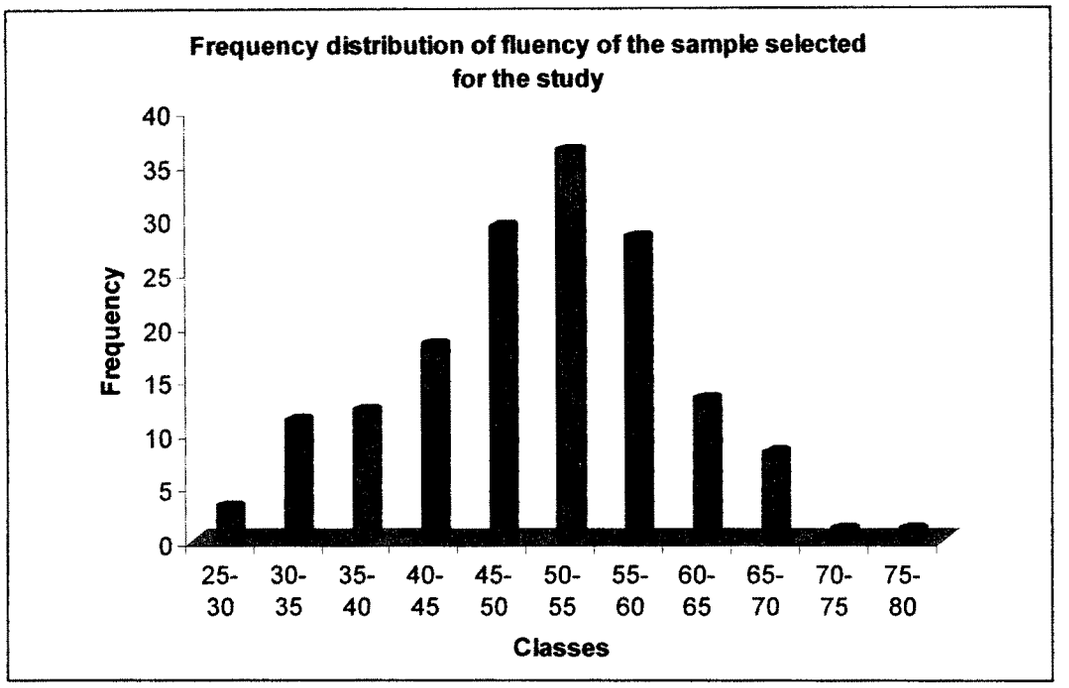
Frequency distribution of fluency of the sample selected for the study

Classes	Mid value	Upper limit	Frequency	Cumulative frequency
25-30	27.5	30	3	160
30-35	32.5	35	11	157
35-40	37.5	40	12	146
40-45	42.5	45	18	134
45-50	47.5	50	29	116
50-55	52.5	55	36	87
55-60	57.5	60	28	51
60-65	62.5	65	13	23
65-70	67.5	70	8	10
70-75	72.5	75	1	2
75-80	77.5	80	1	1

Observation and interpretation:

The below Graph no. 3 shows the frequency distribution of fluency of the sample which is elected for the study.

The Graph it can be concluded that there are 58.125% student teachers lies between the ranges 40 – 60 of fluency. Also 77.5% student teachers lies between the range 40 – 65 of fluency.


Frequency distribution of fluency of the sample selected for the study
Frequency
40
35
30
25
20
15
10
5
0
25-30
30-35
35-40
40-45
45-50
50-55
55-60
60-65
65-70
70-75
75-80
Classes

Graph 3

Table No. 7

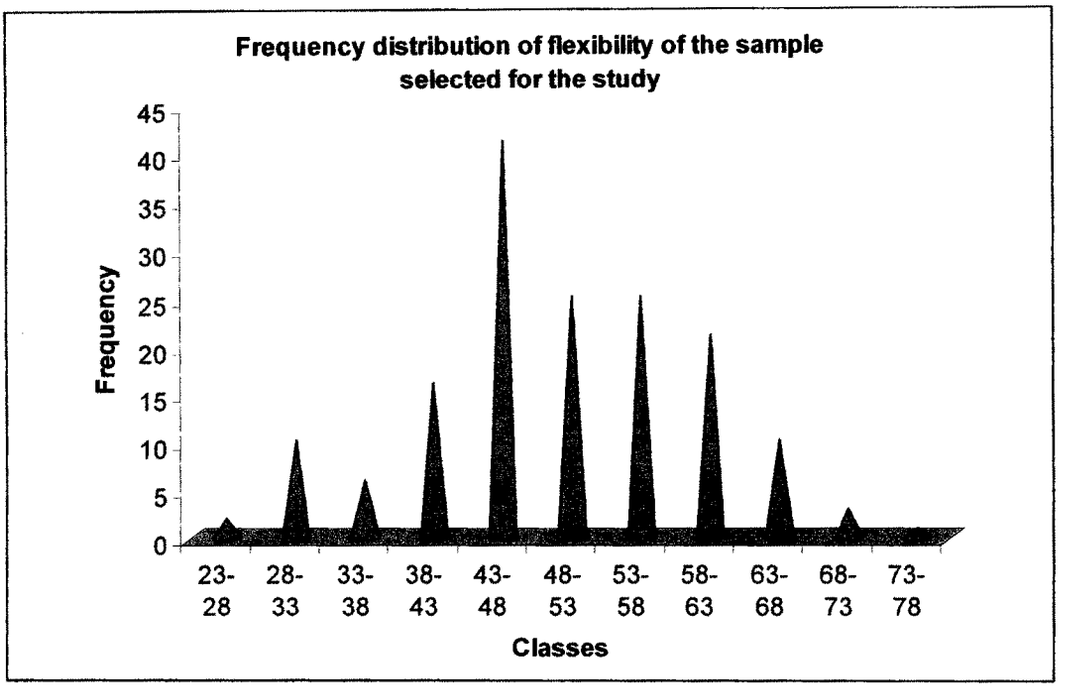
Frequency distribution of flexibility of the sample selected for the study

Classes	Mid value	Upper limit	Frequency	Cumulative frequency
23-28	25.5	28	2	2
28-33	30.5	33	10	12
33-38	35.5	38	6	18
38-43	40.5	43	16	34
43-48	45.5	48	41	75
48-53	50.5	53	25	100
53-58	55.5	58	25	125
58-63	60.5	63	21	146
63-68	65.5	68	10	156
68-73	70.5	73	3	159
73-78	75.58	78	1	160

Observation and interpretation

The below Graph No. 4 shows that the frequency distribution of flexibility of the sample which is selected for the study.

From the Graph it is concluded that there are 56.87% student teachers lies between the range 43 – 58 of flexibility. Also 70% student teachers lies between the range 43 – 63 of academic achievement.


Frequency distribution of flexibility of the sample selected for the study
Frequency
45
40
35
30
25
20
15
10
5
0
23-28
28-33
33-38
38-43
43-48
48-53
53-58
58-63
63-68
68-73
73-78
Classes

Graph 4

Table No. 8

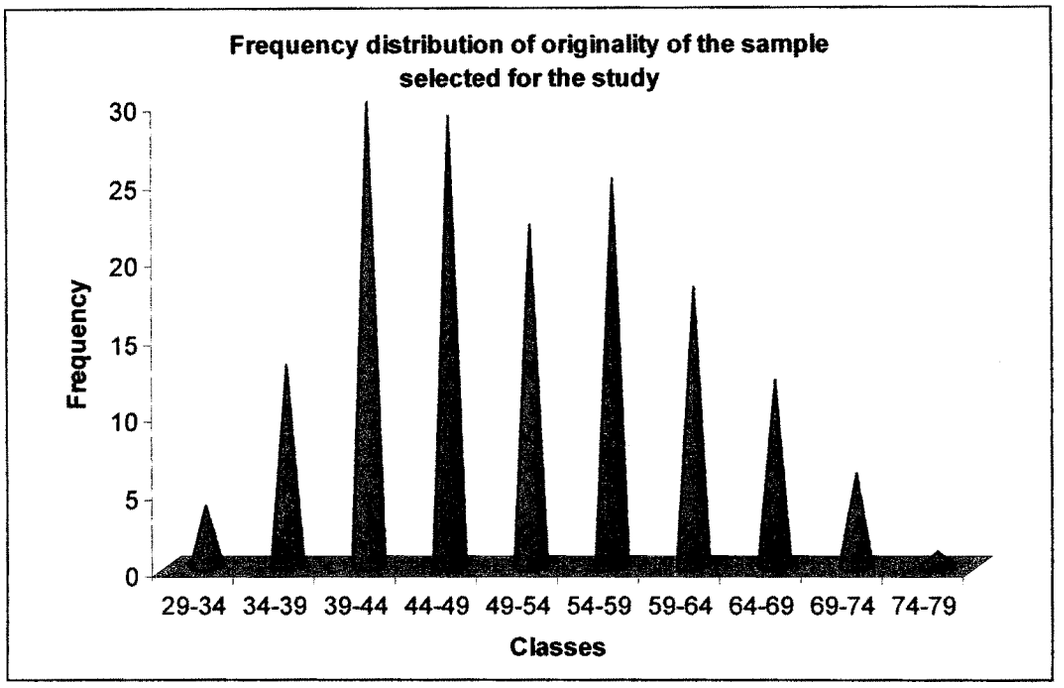
Frequency distribution of originality of the sample selected for the study

Classes	Mid value	Upper limit	Frequency	Cumulative frequency
29-34	31.5	34	4	160
34-39	36.5	39	13	156
39-44	41.5	44	30	143
44-49	46.5	49	29	113
49-54	51.5	54	22	84
54-59	56.5	59	25	62
59-64	61.5	64	18	37
64-69	66.5	69	12	19
69-74	71.5	74	6	7
74-79	76.5	79	1	1

Observation and interpretation:

The below Graph shows that the frequency distribution of originality of the sample which is selected for the study.

From Graph it can be concluded that there are 50.62% student teachers lies between the range 39 – 54 of originality. Also 77.5% student teachers lies between the range 39 – 64 of originality.


Frequency distribution of originality of the sample selected for the study
Frequency
30
25
20
15
10
5
0
29-34
34-39
39-44
44-49
49-54
54-59
59-64
64-69
69-74
74-79
Classes

Graph 5

Table No. 9

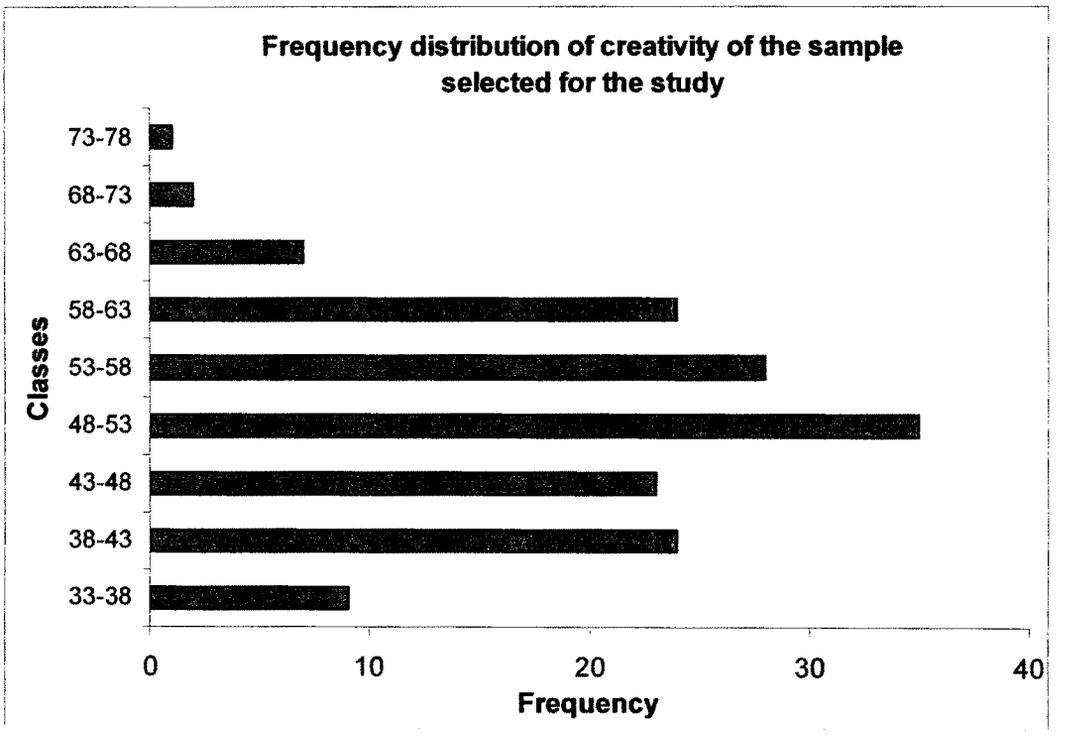
Frequency distribution of creativity of the sample selected for the study

Classes	Mid value	Upper limit	Frequency	Cumulative frequency
28-33	25.5	33	7	160
33-38	30.5	38	9	153
38-43	35.5	43	24	144
43-48	40.5	48	23	120
48-53	45.5	53	35	97
53-58	50.5	58	28	62
58-63	55.5	63	24	34
63-68	60.5	68	7	10
68-73	65.5	73	2	3
73-78	70.5	78	1	1

Observation and interpretation:

The below Graph No. 6 show the frequency distribution of creativity of the sample which is selected for the study.

From Graph it can be concluded that there are 53.75% student teachers lies between the range 43-58 of creativity. Also 83.75% student teachers lies between the range 38.63 of creativity.


Frequency distribution of creativity of the sample selected for the study
Classes
73-78
68-73
63-68
58-63
53-58
48-53
43-48
38-43
33-38
0
10
20
30
40
Frequency

Graph 6

Table No. 10

Table Showing Intelligence Quotient range and Academic Achievement of the Students

Sr. No.	I.Q. Range	Average of academic achievement	No. of students	Percentage of the students
1.	120-140	62	1	0.62
2.	110-119	63	7	4.4
3.	90-109	59.65	108	67.5
4.	80-89	59.74	27	16.9
5.	70-79	62	13	8.13
6.	60-69	57	04	2.5
	Total		160	100.00

Observation and interpretation:

From the above table it is clear that (0.62%) having the I.Q. range 120-140 and the average of the academic achievement is 62. Similarly there are 7 student i.e. (4.4%) having the I.Q. range 110-119 and there academic achievement is 63%. There are 108 students i.e. (67.5%) having I.Q. range 90-109 and academic achievement is 59.74. There are 27 students i.e. (16.9%) having I.Q. range 80-89 and their academic achievement is 59.74 as well as there are 13 students i.e. (8.13%) having I.Q. range 70.79 and their academic achievement is 62 and there are only 4 student i.e. (2.5%) having I.Q. range 60-69 having academic achievement 57.

From above it can be concluded that there is no relationship between intelligence quotient and academic achievement.

Table No. 11

Relationship between Academic Achievement and Intelligent quotient

Sr. No.	B.A.B.Ed. Classes (years)	Academic Achievement	Fluency	Calculated 't' value	Table Value 0.05 level for df 158
1.	I	66	94.27	-0.003	0.972
2.	II	57.92	94.62		
3.	III	59.47	94.35		
4.	IV	58.42	94.80		

Observation and interpretation:

It is observed from the Table No. 11 that the calculated 't' value was found to be – 0.003 which is less than the table value 0.972 at 0.05 level of significance for df 158. The difference is not significant. It is therefore concluded that there is no significant association between academic achievement and intelligence quotient of the students of B.A.B.Ed. integrated degree course. Hence, null hypothesis is accepted.

Table No. 12

Relationship between Academic Achievement and fluency.

Sr. No.	B.A.B.Ed. Classes (years)	Academic Achievement	Fluency	Calculated 't' value	Table Value 0.01 level for df 158
1.	I	66	52.35	0.275	0.000
2.	II	57.92	52.61		
3.	III	59.47	47.29		
4.	IV	58.42	47.93		

Observation and interpretation:

It is observed from the Table No. 12 that the calculated 't' value was found to be 0.275 which is more than the table value 0.000 at 0.01 level of significance for df 158. The difference is significant. Therefore, it is concluded that there is association between academic achievement and fluency of the student of B.A.B.Ed. (integrated) degree course. Hence Null hypothesis is rejected.

Table No. 13

Relationship between Academic Achievement and flexibility

Sr. No.	B.A.B.Ed. Classes (years)	Academic achievement	Flexibility	Calculated 't' value	Table Value 0.05 level for df 158
1.	I	66	49.17	0.091	0.250
2.	II	57.92	53.68		
3.	III	59.47	47.50		
4.	IV	58.42	48.98		

Observation and interpretation:

It is observed the Table No. 13 that the calculated 't' value was found to be 0.091 which is less than the table value 0.250 at 0.05 level of significance for df 158. The difference is not significant. It is therefore consluded that there is no significant association between academic achievement and flexibility of the students of B.A.B.Ed. (integrated) degree course. Hence, null hypothesis is accepted.

Table No. 14

Relationship between Academic Achievement and originality

Sr. No.	B.A.B.Ed. Classes (years)	Academic achievement	Originality	Calculated 't' value	Table Value 0.05 level for df 158
1.	I	66	51.17	0.206	0.009
2.	II	57.92	52.20		
3.	III	59.47	48.47		
4.	IV	58.42	48.95		

Observation and interpretation:

It is observed from the Table No. 14 that the calculated 't' value was found to be 0.206 which is more than the table value 0.009 at 0.01 level of significance for df 158. The difference is significant. It is therefore concluded that there is significant association between academic achievements and originality of the students of B.A.B.Ed. (integrated) degree course. Hence, null hypothesis is rejected.

Table No. 15

Relationship between intelligent quotient and fluency

Sr. No.	B.A.B.Ed. Classes (years)	I.Q.	Fluency	Calculated 't' value	Table value 0.01 level for df 158
1.	I	94.27	52.35	0.196	0.013
2.	II	94.62	52.61		
3.	III	94.35	47.29		
4	IV	94.80	47.93		

Observation and interpretation

It is observed from the Table No. 15 that the calculated 't' value was found to be 0.196 which is more than the table value 0.013 at 0.05 level of significance for df 158. The difference is significant It is therefore concluded that there is significant association between intelligent quotient and fluency of the student of B.A.B. Ed. Integrated degree course hence null hypothesis is rejected.

Table No. 16

Relationship between intelligent quotient and flexibility

Sr. No.	Class	I.Q.	Flexibility	Calculated 't' value	Table value 0.01 level for df 158
1.	I	94.27	49.17	0.160	0.000
2.	II	94.62	53.68		
3.	III	94.35	47.50		
4	IV	94.80	48.98		

Observation and interpretation:

It is observed form the table that the calculated 't' value was found to be 0.160 which is more than the table value 0.000 at 0.05 level of significance for df 158. The difference is significance. It is therefore concluded that there is significant association between intelligent quotient and flexibility of the student of B.A.B.Ed. integrated degree course Hence null hypothesis is rejected.

Table No. 17

Relationship between intelligent quotient and originality

Sr. No.	B.A.B.Ed. Classes (years)	I.Q.	Originality	Calculated 't' value	Table value 0.01 level for df 158
1.	I	94.27	51.17	0.207	0.009
2.	II	94.62	52.20		
3.	III	94.35	48.47		
4	IV	94.80	48.95		

Observation and interpretation:

It is observed from the Table No. 17 that the calculated 't' value was found to be 0.207 level is more than the table value 0.009 at 0.01 level of significance of df 158. The difference is significant. It is therefore concluded that there is significant association between intelligent quotient and originality of the students of B.A.B.Ed. integrated degree course Hence, null hypothesis is rejected.

Table No. 18

Relationship between fluency and flexibility.

Sr. No.	B.A.B.Ed. Classes (years)	Fluency	Flexibility	Calculated 't' value	Table alue 0.01 level for df 158
1.	I	52.35	49.17	0.86	0.000
2.	II	52.61	53.68		
3.	III	47.29	47.50		
4	IV	47.93	48.98		

Observation &interpretation:

It is observed from the Table No. 18 that the calculated 't' value was found to be 0.86 which is more than table value 0.000 at 0.01 level of significance for df 158. The difference is significant, it is therefore concluded that there is significant association between fluency and flexibility of the students of B.A.B.Ed. integrated degree course. Hence null hypothesis is rejected.

Table No. 19

Relationship between fluency and originality

Sr. No.	B.A.B.Ed. Classes (years)	Fluency	Originality	Calculated 't' value	Table value 0.01 level for df 158
1.	I	52.35	51.17	0.855	0.000
2.	II	52.61	52.20		
3.	III	47.29	48.47		
4	IV	47.93	48.95		

Observation and interpretation:

It is observed from the Table No. 19 that the calculated 't' value is more than the table value 0.000 at 0.01 level of significance for df 158. The difference is significant. It is therefore concluded that there is significant association between fluency and originality of the students of B.A.B.Ed. integrated degree course. Hence null hypothesis is rejected.

Table No. 20

Relationship between flexibility and originality

Sr. No.	B.A.B.Ed. Classes (years)	Flexibility	Originality	Calculated 't' value	Table Value 0.05 level for df 158
1.	I	49.17	51.17	0.788	0.000
2.	II	53.68	52.20		
3.	III	47.50	48.47		
4.	IV	48.98	48.95		

Observation and interpretation:

It is observed from the Table No. 20 that the calculated 't' value was found to be 0.788 which is more than the table value 0.000 at 0.01 level of significance for df 158. The difference is significant. It is therefore concluded that there is significant association between flexibility and originality of the student of B.A.B.Ed. (integrated) degree course

The statistical Null hypotheses which were tested for objective interpretation are as follows:

1. There is no significance between academic achievement and intelligent quotient of the student of B.A.B.Ed. (integrated) degree course.
2. There is significant relationship between academic achievement and fluency of the student of B.A.B.Ed. (integrated) degree course.
3. There is no significant relationship between academic achievement and flexibility of the student of B.A.B.Ed. (integrated) degree course.
4. There is significant relationship between academic achievement and originality of the students of the student of B.A.B.Ed. (integrated) degree course.
5. There is significant relationship between intelligent quotient and flexibility of the of of B.A.B.Ed. (integrated) degree course.
6. There is significant relationship between intelligent quotient and fluency of the student of B.A.B.Ed. (integrated) degree course.
7. There is significant relationship between intelligent quotient and originality of the student of the B.A.B.Ed. (integrated) degree course.
8. There is significant relationship between fluency and flexibility of the student of B.A.B.Ed. (integrated) degree course.
9. There is significant relationship between fluency and originality of the student of B.A.B.Ed. (integrated) degree course.
10. There is significant relationship between flexibility and originality of the student of B.A.B.Ed. (integrated) degree course.