CHAPTER IV

ANALYSIS AND INTERPRETATION OF DATA

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C H A P T E R IV

ANALYSIS AND INTERPRETATION OF DATA

4.1.0. INTRODUCTION

One of the most fundamental of all research techniques is analysis. Fundamentally analysis is a method which underlies the whole process of research, from the selection of a problem and its reduction in size to the point where the data are processed and conclusions are reached (George Mouly 1964).

In this chapter the analysis as well as the interpretation of the data gathered is presented. The

chapter embodies the complete discussion of the data analysed and interpreted applying the different parameters. The discussion has been designed to provide continuity and to bring out the comprehensiveness of this research report.

In order to make the analysis of the data broad-based and comprehensive, the following types of analysis have been attempted in this study.

I. Sample-wise Analysis
II. Variable-wise Analysis
III. Dimension-wise Analysis in relation to the
    i) High School teachers,
    ii) Higher Secondary School teachers,
    iii) Arts and Science College teachers, and
    iv) Teacher Educators of Colleges of Education.
IV. Component-wise Analysis in respect of the variable 'Sex' and
V. Correlation between Teacher Innovativeness and Teacher Morale.

4.2.0. SAMPLE-WISE ANALYSIS.

Teacher Innovativeness in Tamil Nadu

The distribution of scores of teacher innovativeness in respect of all the 1,000 teachers in the sample is given in Table 4.1.

TABLE 4.1

TABLE SHOWING THE DISTRIBUTION OF SCORES OF ALL THE 1000 TEACHERS IN THE SAMPLE IN RESPECT OF TEACHER INNOVATIVENESS

S.No.	REAL LIMITS	MID POINT	f	d	fd	fd^2	cf
1.	37 - 45	41	20	-2	- 40	80	20
2.	45 - 53	49	200	-1	-200	200	220
3.	53 - 61	57	572	0	0	0	792
4.	61 - 69	65	184	1	184	184	976
5.	69 - 77	73	24	2	48	96	1000
6.	77 - 85	81	0	3	0	0	
7.	85 - 93	89	0	4	0	0	

$\Sigma f = 1000$ $\Sigma fd = -8$ $\Sigma fd^2 = 560$

Mean = 56.94

S.D. = 2.08

Table 4.1. reveals that the mean value of the scores of all the 1000 teachers in the sample in respect of innovativeness is 56.94. Although this is more than 50, it is less than 60. This indicates that Teacher Innovativeness is above average as far as the teachers of Tamil Nadu are concerned.

The hypothesis formulated earlier in chapter III, namely, "By and large Teachers in Tamil Nadu possess high innovativeness" gets rejected. It may be concluded that although the Teacher Innovativeness is above average, it is not high.

Teachers in Tamil Nadu possess above average level innovativeness only.

4.3.0. VARIABLE-WISE ANALYSIS

The variables selected for the present study are as follows:-

1) Sex	- Men/Women
2) Age	- 35 years and above/ Below 35 years
3) Teaching Experience	- 5 years and more/ Less than 5 years
4) Professional Qualification	- Trained/Untrained

5) Educational Qualification	- Higher qualification/ lesser qualification
6) Mobility	- Teachers served in different places and institutions/Those who continued to serve in the same place and institution
7) Professional experience as teacher educators	- Teaching experience in Teacher Training Institutions/No such experience
8) In-service training	- Those undergone in-service training/those who have had no such in-service training
9) Reading Research studies	- Teachers who have read Research studies/those who have not read Research studies.
10) Satisfaction in Teaching	- Those having satisfaction in teaching/those not having satisfaction in teaching

4.3.1. TEACHER INNOVATIVENESS AND SEX

(MEN Vs WOMEN)

The following two tables present the distributions of scores of teacher innovativeness of men teachers and women teachers respectively.

TABLE 4.2.

TABLE SHOWING THE DISTRIBUTION OF SCORES OF 585 MEN TEACHERS IN RESPECT OF TEACHER INNOVATIVENESS

S.No.	REAL LIMITS	MID POINT	f	d	fd	fd^2	cf
1.	345 - 375	360	8	-6	- 48	288	8
2.	375 - 405	390	20	-5	-100	500	28
3.	405 - 435	420	48	-4	-192	768	76
4.	435 - 465	450	68	-3	-204	612	144
5.	465 - 495	480	56	-2	-112	224	200
6.	495 - 525	510	160	-1	-160	160	360
7.	525 - 555	540	177	0	0	0	537
8.	555 - 585	570	24	1	24	24	561
9.	585 - 615	600	24	2	48	96	585

$\Sigma f = 585$ $\Sigma fd = -744$ $\Sigma fd^2 = 2672$

Mean = 502.90

S.D. = 51.90

TABLE 4.3.

TABLE SHOWING THE DISTRIBUTION OF SCORES OF 415 WOMEN TEACHERS IN RESPECT OF TEACHER INNOVATIVENESS

S. No.	REAL LIMITS	MID POINT	f	d	fd	fd^2	cf
1.	435 - 465	450	38	-2	- 76	152	38
2.	465 - 495	480	112	-1	-112	112	150
3.	495 - 525	510	130	0	0	0	280
4.	525 - 555	540	7	1	7	7	287
5.	555 - 585	570	60	2	120	240	347
6.	585 - 615	600	36	3	108	324	383
7.	615 - 645	630	12	4	48	192	395
8.	645 - 675	660	8	5	40	200	403
9.	675 - 705	690	12	6	72	432	415

$\Sigma f = 415$ $\Sigma fd = 207$ $\Sigma fd^2 = 1659$

Mean = 508.28

S.D. = 56.40

It is evident from the tables that the mean value of men teachers is 502.90 while that of women teachers is 508.28. It is revealed the mean value of both the groups is almost the same. However, to find out the significance of difference between the two groups the 't' value was computed. Table 4.4 contains the 't' test result.

TABLE 4.4.

TABLE SHOWING THE 't' TEST RESULT OF THE VARIABLE - 'SEX'

VARIABLE	NUMBER	MEAN	S.D.	't' VALUE
MEN	585	502.90	51.90	1.54 N.S.
WOMEN	415	508.28	56.40	

t = 1.54 Not Significant

Table 4.4 reveals that the 't' test value is 1.54 which is less than 1.96, and hence it is not significant. Therefore it may be stated that there is no significant difference between the men teachers and the women teachers in teacher innovativeness.

The hypothesis stated earlier in chapter III namely, "there is a significant sex difference between the men and women teachers in their Innovativeness, as men teachers are more Innovative than women teachers" - stands rejected since there is no significant difference between men teachers and women teachers in their innovativeness.

4.3.2. TEACHER INNOVATIVENESS AND AGE

The distribution of scores of Teacher Innovativeness of teachers below 35 years of age and that of those above 35 years have been presented in tables 4.5 and 4.6 respectively.

TABLE 4.5

TABLE SHOWING THE DISTRIBUTION OF SCORES OF 612 TEACHERS BELOW 35 YEARS OF AGE IN RESPECT OF TEACHER INNOVATIVENESS

S. No.	REAL LIMITS	MID POINT	f	d	fd	fd^2	cf
1.	335 - 365	350	8	-5	- 40	200	8
2.	365 - 395	380	4	-4	- 16	64	12
3.	395 - 425	410	16	-3	-48	144	28
4.	425 - 455	440	44	-2	- 88	176	72
5.	455 - 485	470	124	-1	-124	124	196
6.	485 - 515	500	192	0	0	0	388
7.	515 - 545	530	60	1	60	60	448
8.	545 - 575	560	84	2	168	336	532
9.	575 - 605	590	44	3	132	396	576
10.	605 - 635	620	32	4	128	512	608
11.	635 - 665	650	0	5	0	0	608
12.	665 - 695	680	4	6	24	144	612

$\leq f = 612$ $\leq fd = 196$ $\leq fd^2 = 2156$

Mean = 509.60

S.D. = 55.40

TABLE 4:6.

TABLE SHOWING THE DISTRIBUTION OF SCORES OF 388 TEACHERS ABOVE 35 YEARS OF AGE IN RESPECT OF TEACHER INNOVATIVENESS

S. No.	REAL LIMITS	MID POINT	f	d	fd	fd^2	cf
1.	370 - 400	385	16	-5	- 80	400	16
2.	400 - 430	415	28	-4	-112	448	44
3.	430 - 460	445	48	-3	-144	432	92
4.	460 - 490	475	52	-2	-104	208	144
5.	490 - 520	505	60	-1	- 60	60	204
6.	520 - 550	535	120	0	0	0	324
7.	550 - 580	565	20	1	20	20	344
8.	580 - 610	595	24	2	44	96	368
9.	610 - 640	625	8	3	24	72	376
10.	640 - 670	655	8	4	32	128	384
11.	670 - 700	685	4	5	20	100	388

$\leq f = 388 \quad \leq fd = -360 \quad \leq fd^2 = 1964$

Mean = 507.11

S.D. = 61.48

The mean value of teachers below 35 years of age is 509.60 and that of those above 35 years is 507.11. The table that follows presents the 't' test result.

TABLE 4.7

TABLE SHOWING THE 't' TEST RESULT OF THE VARIABLE - 'AGE'

VARIABLE	NUMBER	MEAN	S.D.	't' VALUE
1. TEACHERS BELOW 35 YEARS	612	509.60	55.40	0.63 N.S.
2. TEACHERS ABOVE 35 YEARS	388	507.11	61.48	

t = 0.63 Not Significant

The 't' value 0.63 is not significant. This indicates that there is no significant difference between the teachers above 35 years of age and those below 35 years in Teacher Innovativeness.

The hypothesis formulated in chapter III namely, "Innovativenes develops with the Age as elderly Teachers (those aged 35 and above) are significantly higher than younger teachers (those aged below 35 years)

with regard to Innovativeness," gets rejected. The younger and elder teachers are on par with each other as far as Innovativeness is concerned.

4.3.3. TEACHER INNOVATIVENESS AND TEACHING EXPERIENCE

Table 4.8 contains the distribution of the scores of Teacher Innovativeness in respect of teachers with teaching experience of five years and more, and table 4.9 presents the distribution of the scores of Teacher Innovativeness of teachers having less than five years of teaching experience.

TABLE 4.8.

TABLE SHOWING THE DISTRIBUTION OF THE SCORES OF 868 TEACHERS WITH 5 YEARS EXPERIENCE AND MORE IN RESPECT OF TEACHER INNOVATIVENESS

S. No.	REAL LIMITS	MID POINT	f	d	fd	fd^2	cf
1.	345 - 375	360	8	-5	- 40	100	8
2.	375 - 405	390	12	-4	- 48	192	20
3.	405 - 435	420	52	-3	-156	468	72
4.	435 - 465	450	80	-2	-160	320	152
5.	465 - 495	480	180	-1	-180	180	332
6.	495 - 525	510	204	0	0	0	536
7.	525 - 555	540	156	1	156	156	692
8.	555 - 585	570	76	2	152	304	768
9.	585 - 615	600	68	3	204	612	836
10.	615 - 645	630	12	4	48	192	848
11.	645 - 675	660	8	5	40	100	856
12.	675 - 705	690	12	6	72	432	868

$\Sigma f = 868$ $\Sigma fd = 88$ $\Sigma fd^2 = 3056$

Mean = 513.04

S.D. = 56.20

TABLE 4.9.

TABLE SHOWING THE DISTRIBUTION OF SCORES OF 132 TEACHERS WITH LESS THAN 5 YEARS EXPERIENCE IN RESPECT OF TEACHER INNOVATIVENESS

S. No.	REAL LIMITS	MID POINT	f	d	fd	fd^2	cf
1.	370 - 400	385	4	-4	-16	64	4
2.	400 - 430	415	12	-3	-36	108	16
3.	430 - 460	445	16	-2	-32	64	32
4.	460 - 490	475	16	-1	-16	16	48
5.	490 - 520	505	40	0	0	0	88
6.	520 - 550	535	28	1	28	28	116
7.	550 - 580	565	8	2	16	32	124
8.	580 - 610	595	8	3	24	72	132

$\leq f = 132 \quad \leq fd = -32 \quad \leq fd^2 = 384$

Mean = 497.73

S.D. = 50.64

The mean value of teachers with teaching experience of five years and more is 513.04 while that of those with less than five years teaching experience is 497.73.

The 't' value is given in the table that follows.

TABLE 4.10

TABLE SHOWING 't' TEST RESULT OF THE VARIABLE - 'TEACHING EXPERIENCE'

VARIABLE	NUMBER	MEAN	S.D.	't' VALUE
Teachers with less than 5 years' experience	132	497.73	50.64	3.18
Teachers with 5 years experience and more	868	513.04	56.20	

t = 3.18 Significant at 0.01 level

The 't' value 3.18 is more than 2.58 and hence it is significant at 0.01 level. There is significant difference between the two groups of teachers. The 't' value is significant and the mean value is higher in the case of teachers having teaching experience of five years and more. The finding is that teachers having teaching experience of five years

and more are significantly higher than those with less than five years teaching experience in teacher innovativeness.

The hypothesis stated earlier, namely, "The more experienced teachers (those with experience of 5 years and more) are significantly higher than less experienced teachers (those with experience of less than 5 years) in innovativeness" stands confirmed.

The finding is that there is a significant difference between the two experience groups and the more experienced teachers are higher than less experienced teachers in respect of teacher innovativeness.

4.3.4. TEACHER INNOVATIVENESS AND PROFESSIONAL TRAINING

The distribution of teacher innovativeness scores of trained teachers and that of untrained teachers can be found in the tables 4.11 and 4.12 respectively. Table 4.13 contains the 't' test result.

TABLE 4.11

TABLE SHOWING THE DISTRIBUTION OF TEACHER INNOVATIVNESS SCORES OF 800 TEACHERS WITH PROFESSIONAL TRAINING

S. No.	REAL LIMITS	MID POINT	f	d	fd	fd^2	cf
1.	345 - 385	365	8	-4	- 32	128	8
2.	385 - 425	405	28	-3	- 84	252	36
3.	425 - 465	445	104	-2	-208	416	140
4.	465 - 505	485	204	-1	-204	204	344
5.	505 - 545	525	244	0	0	0	588
6.	545 - 585	565	128	1	128	128	716
7.	585 - 625	605	60	2	120	240	776
8.	625 - 665	645	12	3	36	108	788
9.	665 - 705	655	12	4	48	192	800

$\leq f = 800 \quad \leq fd = -196 \quad \leq fd^2 = 1668$

Mean = 515.20

S.D. = 56.92

TABLE 4.12.

TABLE SHOWING THE DISTRIBUTION OF TEACHER INNOVATIVENESS SCORES OF 200 TEACHERS WITHOUT PROFESSIONAL TRAINING

S. No.	REAL LIMITS	MID POINT	f	d	fd	fd^2	cf
1.	375 - 415	395	16	-3	-48	144	16
2.	415 - 455	435	24	-2	-48	96	40
3.	455 - 495	475	52	-1	-52	52	92
4.	495 - 535	515	56	0	0	0	148
5.	535 - 575	555	40	1	40	40	188
6.	575 - 615	595	8	2	16	32	196
7.	615 - 655	635	4	3	12	36	200

$\Sigma f = 200$ $\Sigma fd = -80$ $\Sigma fd^2 = 400$

Mean = 499.00

S.D. = 54.25

TABLE 4.13

TABLE SHOWING THE 't' TEST RESULT OF

VARIABLE - 'PROFESSIONAL TEACHER TRAINING'

VARIABLE	NUMBER	MEAN	S.D.	't' VALUE
Teachers with Professional Training	800	515.20	56.92	3.74
Teachers without Professional Training	200	499.00	54.25	

t = 3.74 Significant at 0.01 level

The mean value of teachers with Professional training is 515.20 and that of teachers without Professional training is 499.00. The 't' value is 3.74 which is significant at 0.01 level.

There is significant difference between the two groups of teachers. As revealed by the 't' value being significant, and the mean value being higher, the teachers with Professional training are significantly higher than the teachers without Professional training in teacher innovativeness.

The hypothesis formulated in Chapter III, namely, "Teachers with professional training are significantly higher than teachers with no such professional training in respect of their Innovativeness" gets accepted. It is found that the difference between the groups based on professional training is significant.

The teachers with professional training are significantly higher in innovativeness than their counterpoints, namely, teachers without any professional training.

4.3.5. TEACHER INNOVATIVENESS AND EDUCATIONAL QUALIFICATIONS

Table 4.14 contains the distribution of teacher innovativeness scores of teachers with higher academic qualifications and table 4.15 discloses the distribution of teacher innovativeness scores of teachers having lesser academic qualifications. The 't' test result is presented in table 4.16.

TABLE - 4.14.

TABLE SHOWING THE DISTRIBUTION OF TEACHER INNOVATIVENESS SCORES OF 928 TEACHERS WITH HIGHER ACADEMIC QUALIFICATIONS

S. No.	REAL LIMITS	MID POINT	f	d	fd	fd^2	cf
1.	345 - 385	365	12	-4	-48	192	12
2.	385 - 425	405	40	-3	-120	360	52
3.	425 - 465	445	128	-2	-256	512	180
4.	465 - 505	485	252	-1	-252	252	432
5.	505 - 545	525	264	0	0	0	696
6.	545 - 585	565	140	1	140	140	836
7.	585 - 625	605	68	2	136	272	904
8.	625 - 665	645	12	3	36	108	916
9.	665 - 705	685	12	4	48	192	928

$\Sigma f = 928$ $\Sigma fd = -316$ $\Sigma fd^2 = 2028$

Mean = 511.37

S.D. = 54.25

TABLE 4.15

TABLE SHOWING THE DISTRIBUTION OF THE TEACHER INNOVATIVENESS SCORES OF 72 TEACHERS WITH LESSER ACADEMIC QUALIFICATIONS

S. No.	REAL LIMITS	MID POINT	f	d	fd	fd^2	cf
1.	385 - 425	405	4	-2	-8	16	4
2.	425 - 465	445	8	-1	-8	8	12
3.	465 - 505	485	36	0	0	0	48
4.	505 - 545	525	16	1	16	16	64
5.	545 - 585	565	8	2	16	32	72

$\Sigma f = 72$ $\Sigma fd = 16$ $\Sigma fd^2 = 72$

Mean = 493.88

S.D. = 39.19

TABLE 4.16

TABLE SHOWING THE 't' TEST RESULT OF

VARIABLE - 'ACADEMIC QUALIFICATIONS'

VARIABLE	NUMBER	MEAN	S.D.	't' VALUE
Teachers with higher qualifications	928	511.37	54.25	
Teachers with lesser qualifications	72	493.88	39.19	3.50

t = 3.50 Significant at 0.01 level

The mean value of teachers with higher educational qualifications is 511.37 and that of those possessing lesser educational qualifications is 493.88. The 't' value, 3.50 is significant at 0.01 level.

Significant difference is there between the two groups of teachers. Teachers possessing higher academic qualifications are significantly higher than those possessing lesser academic qualifications in teacher Innovativeness.

The hypothesis stated earlier, namely, "Teachers with higher academic qualifications (those possessing post-graduate degrees and research degrees) are significantly higher in innovativeness than teachers with lesser academic qualifications (with graduation only) is affirmed.

The finding is that there is a significant difference between the two groups of teachers based on educational qualifications and that the teachers possessing higher educational qualifications are significantly higher than those possessing lesser educational qualifications regarding Innovativeness.

4.3.6. TEACHER INNOVATIVENESS AND MOBILITY

Teachers who have served in different places or institutions and those who continue in one place or institution are there in the sample. The distribution of scores of teacher innovativeness pertaining to the former group is shown in table 4.17 and that relating to the latter group is given in table 4.18. Table 4.19 presents the 't' test result.

TABLE 4.17

TABLE SHOWING THE DISTRIBUTION OF TEACHER INNOVATIVENESS SCORES OF 240 TEACHERS WHO HAVE SERVED IN DIFFERENT PLACES AND INSTITUTIONS

(Teachers with Mobility)

S. No.	REAL LIMITS	MID POINT	f	d	fd	fd^2	cf
1.	400 - 440	420	8	-2	-16	32	8
2.	440 - 480	460	76	-1	-76	76	84
3.	480 - 520	500	92	0	0	0	176
4.	520 - 560	540	36	1	36	36	212
5.	560 - 600	580	24	2	48	96	236
6.	600 - 640	620	4	3	12	36	240

$\Sigma f = 240$ $\Sigma fd = 4$ $\Sigma fd^2 = 276$

Mean = 500.66

S.D. = 42.89

TABLE 4.18

TABLE SHOWING THE DISTRIBUTION OF TEACHER INNOVATIVENESS SCORES OF 760 TEACHERS WHO HAVE CONTINUED TO SERVE IN ONE PLACE OR INSTITUTION

(Teachers without Mobility)

S. No.	REAL LIMITS	MID POINT	f	d	fd	fd^2	cf
1.	345 - 385	365	12	-4	- 48	192	12
2.	385 - 425	405	44	-3	-132	396	56
3.	425 - 465	445	76	-2	-152	304	132
4.	465 - 505	485	196	-1	-196	196	328
5.	505 - 545	525	240	0	0	0	568
6.	545 - 585	565	112	1	112	112	680
7.	585 - 625	605	52	2	104	208	732
8.	625 - 665	645	16	3	48	144	748
9.	665 - 705	685	12	4	48	192	760

$\leq f = 760 \quad \leq fd = -216 \quad \leq fd^2 = 1744$

Mean = 513.64

S.D. = 59.46

TABLE 4.19

TABLE SHOWING THE 't' TEST RESULT IN RESPECT OF VARIABLE -'MOBILITY'

VARIABLE	NUMBER	MEAN	S.D.	't' VALUE
Teachers with mobility	240	500.66	42.89	3.69
Teachers without mobility	760	513.64	59.46	

t = 3.69 Significant at 0.01 level

The mean value of the teachers having mobility is 500.66 and that of those having no mobility is 513.64. The 't' value 3.69 is significant at 0.01 level.

There is significant difference between the two groups of teachers. Teachers who continue to serve in the same institution or place are significantly higher than those who have served in different places or institutions in teacher innovativeness.

The hypothesis formulated in chapter III, namely, "Teachers who have served in different places and institutions (those with mobility) are significantly higher than those who continue to serve in the same place and institution (those without mobility) in their innovativeness" is rejected.

The finding reveals that there is a significant difference between the two groups of teachers on the basis of mobility. The teachers without mobility are significantly higher than those teachers with mobility in respect of Innovativeness.

4.3.7. TEACHER INNOVATIVENESS AND EXPERIENCE AS TEACHER EDUCATORS

The distribution of teacher innovativeness scores of teachers who have had experience in teacher

training institutions is provided in Table 4.20 and that of those who have not had such experience in teacher training institutions is given in Table 4.21. Table 4.22 contains the 't' value.

TABLE 4.20.

TABLE SHOWING THE DISTRIBUTION OF TEACHER INNOVATIVENESS SCORES OF 604 TEACHERS WITH EXPERIENCE AS TEACHER EDUCATORS

S. No.	REAL LIMITS	MID POINT	f	d	fd	fd^2	cf
1.	345 - 385	365	12	-4	- 48	192	12
2.	385 - 425	405	32	-3	- 96	288	44
3.	425 - 465	445	72	-2	-144	288	116
4.	465 - 505	485	132	-1	-132	132	258
5.	505 - 545	525	192	0	0	0	440
6.	545 - 585	565	96	1	96	96	536
7.	585 - 625	605	44	2	88	176	580
8.	625 - 665	645	12	3	36	108	592
9.	665 - 705	685	12	4	48	192	604

$\Sigma f = 604$ $\Sigma fd = -152$ $\Sigma fd^2 = 1472$

Mean = 514.94

S.D. = 61.57

TABLE 4.21

TABLE SHOWING THE DISTRIBUTION OF TEACHER INNOVATIVENESS SCORES OF 396 TEACHERS WITHOUT EXPERIENCE AS TEACHER EDUCATORS

S. No.	REAL LIMITS	MID POINT	f	d	fd	fd^2	cf
1.	395 - 435	415	24	-2	-48	96	24
2.	435 - 475	455	92	-1	-92	92	116
3.	475 - 515	495	140	0	0	0	256
4.	515 - 555	535	68	1	68	68	324
5.	555 - 595	575	44	2	88	176	368
6.	595 - 635	615	28	3	84	252	396

$\Sigma f = 396$ $\Sigma fd = 100$ $\Sigma fd^2 = 684$

Mean = 505.10

S.D. = 51.53

TABLE 4.22.

TABLE SHOWING THE 't' TEST RESULT IN RESPECT OF VARIABLE - EXPERIENCE AS TEACHER EDUCATORS

VARIABLES	NUMBER	MEAN	S.D.	't' VALUE
Teachers with experience as Teacher Educators	604	514.94	61.57	2.73
Teachers without experience as Teacher Educators	396	505.10	51.53	

t = 2.73 Significant at 0.01 level

The mean value of teachers with experience as Teacher Educators is 514.94 while that of those without such experience is 505.10. The 't' value 2.73 is significant at 0.01 level.

Significant difference is found between the two groups of teachers. The finding is that teachers having experience as Teacher Educators are significantly higher than those having no such experience in respect of teacher innovativeness.

The hypothesis formulated earlier, namely, "Teachers with experience as Teacher Educators are significantly higher in their innovativeness than teachers in High Schools, Higher Secondary Schools and Arts and Science Colleges" is confirmed and accepted.

The finding is that the difference between the two groups of teachers is significant. The Teacher Educators are significantly higher than the teachers who have not had such experience with regard to Teacher Innovativeness.

4.3.8. TEACHER INNOVATIVENESS AND INSERVICE TRAINING

Tables 4.23 and 4.24 contain the distribution of teacher innovativeness scores of the teachers who have undergone inservice training and that of those of

the teachers who have not undergone any inservice training respectively. The 't' value is given in Table 4.25.

TABLE 4.23

TABLE SHOWING THE DISTRIBUTION OF TEACHER INNOVATIVENESS SCORES OF 584 TEACHERS WHO HAVE HAD IN-SERVICE TRAINING

S. No.	REAL LIMIT	MID POINT	f	d	fd	fd^2	cf
1.	340 - 380	360	8	-4	- 32	128	8
2.	380 - 420	400	24	-3	- 72	216	32
3.	420 - 460	440	52	-2	-104	208	84
4.	460 - 500	480	168	-1	-168	168	252
5.	500 - 540	520	172	0	0	0	424
6.	540 - 580	560	84	1	84	84	508
7.	580 - 620	600	48	2	96	192	556
8.	620 - 660	640	16	3	48	144	572
9.	660 - 700	680	12	4	48	192	584

$\Sigma f = 584$ $\Sigma fd = -100$ $\Sigma fd^2 = 1332$

Mean = 513.16

S.D. = 60.13

TABLE 4.24

TABLE SHOWING THE DISTRIBUTION OF TEACHER INNOVATIVENESS SCORES OF 416 TEACHERS WHO HAVE NOT HAD IN-SERVICE TRAINING

S. No.	REAL LIMITS	MID POINT	f	d	fd	fd^2	cf
1.	370 - 410	390	8	-3	- 24	72	8
2.	410 - 450	430	56	-2	-112	224	64
3.	450 - 490	470	116	-1	-116	116	180
4.	490 - 530	510	120	0	0	0	300
5.	530 - 570	550	64	1	64	64	364
6.	570 - 610	590	44	2	88	176	408
7.	610 - 650	630	8	3	24	72	416

$\Sigma f = 416$ $\Sigma fd = -76$ $\Sigma fd^2 = 724$

Mean = 502.70

S.D. = 52.30

TABLE 4.25

TABLE SHOWING THE 't' TEST RESULT IN RESPECT OF VARIABLE - 'IN-SERVICE TRAINING'

VARIABLE	NUMBER	MEAN	S.D.	't' VALUE
Teachers with In-service Training	584	513.16	60.13	2.92
Teachers without In-service Training	416	502.70	52.30	

t = 2.92 Significant at 0.01 level

The mean value of the teachers who have had inservice training is 513.16 and that of those who have had no inservice training is 502.70. The 't' value 2.92 is significant at 0.01 level.

This reveals that there is significant difference between the two groups of teachers. The teachers who have undergone inservice training are significantly higher than those who have not undergone inservice training in teacher innovativeness.

The hypothesis stated in earlier chapter, namely, "Teachers who have undergone in-service training are significantly higher in Innovativeness than teachers who have had no such experience" is confirmed.

Hence the finding is that there is a significant difference between the two groups of teachers based on the variable 'Inservice training'. Teachers with inservice training are significantly higher than those without such inservice experience, pertaining to Teacher Innovativeness

4.3.9. TEACHER INNOVATIVENESS AND READING OF RESEARCH STUDIES

396 Teachers have read research studies while 604 teachers have not read such materials. The distribution of teacher innovativeness scores of the former

group of teachers is given in Table 4.26 and that of those of the latter group of teachers is provided in Table 4.27. Table 4.28 presents the 't' value.

TABLE 4.26

TABLE SHOWING THE DISTRIBUTION OF TEACHER INNOVATIVENESS SCORES OF 396 TEACHERS WHO HAVE READ RESEARCH STUDIES

S. No.	REAL LIMITS	MID POINT	f	d	fd	fd^2	cf
1.	345 - 385	365	8	-4	- 32	128	8
2.	385 - 425	405	12	-3	- 36	108	20
3.	425 - 465	445	60	-2	-120	240	80
4.	465 - 505	485	104	-1	-104	104	184
5.	505 - 545	525	124	0	0	0	308
6.	545 - 585	565	64	1	64	64	372
7.	585 - 625	605	8	2	16	32	380
8.	625 - 665	645	12	3	36	108	392
9.	665 - 705	685	4	4	16	64	396

$\Sigma f = 396$ $\Sigma fd = -160$ $\Sigma fd^2 = 848$

Mean = 508.84

S.D. = 52.76

TABLE 4.27

TABLE SHOWING THE DISTRIBUTION OF TEACHER INNOVATIVENESS SCORES OF 604 TEACHERS WHO HAVE NOT READ RESEARCH STUDIES

S. No.	REAL LIMITS	MID POINT	f	d	fd	fd^2	cf
1.	370 - 410	390	16	-3	- 48	144	16
2.	410 - 450	430	44	-2	- 88	176	60
3.	450 - 490	470	144	-1	-144	144	204
4.	490 - 530	510	208	0	0	0	412
5.	530 - 570	550	100	1	100	100	512
6.	570 - 610	590	64	2	128	256	576
7.	610 - 650	630	20	3	60	180	596
8.	650 - 690	670	0	4	0	0	596
9.	690 - 730	710	8	5	40	200	604

$f = 604$ $d = .48$ $fd^2 = 1200$

Mean = 513.17

S.D. = 56.19

TABLE 4.28

TABLE SHOWING THE 't' TEST RESULT IN RESPECT OF VARIABLE - 'READING OF RESEARCH STUDIES'

VARIABLE	NUMBER	MEAN	S.D.	't' VALUE
Teachers who have read Research Studies	396	508.84	52.76	1.23
Teachers who have not read Research Studies	604	513.17	56.19	

t = 1.23 Not Significant

The mean value of teachers who have read research materials is 508.84 and that of those who have not read such materials is 513.17. The 't' value is 1.23 which is not significant.

No significant difference is found between the teachers who have read research studies and those who have not read such research studies.

The hypothesis formulated in chapter III, namely, "Teachers who have read research studies are significantly higher in Innovativeness than teachers who have not read such research studies" stands rejected.

Therefore, the finding is that there is no significant difference between the two groups of teachers, namely, who have read and who have not read research studies in their innovativeness.

4.3.10. TEACHER INNOVATIVENESS AND SATISFACTION IN TEACHING

The distribution of sources on teacher innovativeness of teachers having satisfaction in teaching and that of those who do not have such satisfaction in teaching found in Tables 4.29 and 4.30 respectively. Table 4.31 contains the 't' value.

TABLE 4.29

TABLE SHOWING THE DISTRIBUTION OF TEACHER INNOVATIVENESS SCORES OF 616 TEACHERS WHO HAVE SATISFATION IN TEACHING

S. No.	REAL LIMITS	MID POINT	f	d	fd	fd^2	cf
1.	345 - 385	365	12	-4	- 48	192	12
2.	385 - 425	405	40	-3	-120	360	52
3.	425 - 465	445	52	-2	-104	208	104
4.	465 - 505	485	180	-1	-180	180	284
5.	505 - 545	525	168	0	0	0	452
6.	545 - 585	565	88	1	88	88	540
7.	585 - 625	605	52	2	104	208	592
8.	625 - 665	645	16	3	48	144	608
9.	665 - 705	685	8	4	32	128	616

$\Sigma f = 616$ $\Sigma fd = -180$ $\Sigma fd^2 = 1508$

Mean = 513.31

S.D. = 61.44

TABLE 4.30

TABLE SHOWING THE DISTRIBUTION OF TEACHER INNOVATIVENESS SCORES OF 384 TEACHERS WHO DO NOT HAVE SATISFACTION IN TEACHING

S. No.	REAL LIMITS	MID POINT	f	d	fd	fd^2	cf
1.	385 - 425	405	4	-3	- 12	36	4
2.	425 - 465	445	72	-2	-144	288	76
3.	465 - 505	485	108	-1	-108	108	184
4.	505 - 545	525	132	0	0	0	316
5.	545 - 585	565	52	1	52	52	368
6.	585 - 625	605	16	2	32	64	384

$\Sigma f = 384$ $\Sigma fd = -180$ $\Sigma fd^2 = 548$

Mean = 506.25

S.D. = 44.00

TABLE 4.31

TABLE SHOWING THE 't' TEST RESULT IN RESPECT OF VARIABLE - SATISFACTION IN TEACHING

VARIABLE	NUMBER	MEAN	S.D.	't' VALUE
Teachers having satisfaction in Teaching	616	513.31	61.44	2.11
Teachers having no satisfaction in Teaching	384	506.25	44.00	

t = 2.11 Significant at 0.05 level

The mean value of teachers having satisfaction in teaching is 513.31 and that of those having no satisfaction in teaching is 506.25. The 't' value is 2.11. This is significant at 0.05 level.

There is significant difference between the two groups of teachers. Teachers having satisfaction in teaching are significantly higher in teacher Innovativeness than those having no satisfaction in teaching.

The hypothesis stated earlier, namely, "Teachers who consider teaching as very satisfying are significantly higher in Innovativeness than teachers who consider teaching as not very satisfying" is accepted.

Thus, the finding is that there is significant difference between those with satisfaction in teaching and those without satisfaction in teaching. Those teachers who have satisfaction in teaching are significantly higher than those who have no such satisfaction in teaching.

4.4.0. DIMENSION-WISE ANALYSIS

The present section consists of the following three Dimensions.

1) Debatable changes in Education
2) Process of change in Education
3) Values and Opinions in Education

In this section, analysis as well as interpretation is continued in respect of the above stated Dimensions to find out the Teacher Innovativeness of teachers serving in

1) High Schools,
2) Higher Secondary Schools,
3) Arts and Science Colleges, and
4) Colleges of Education.

4.4.1. DIMENSION I - DEBATABLE CHANGES IN EDUCATION

The following table presents the 't' test result in respect of High School teachers and Higher Secondary School teachers in 'Debatable Changes in Education', the first Dimension of Teacher Innovativeness.

TABLE 4.32

TABLE SHOWING THE 't' TEST RESULT IN RESPECT OF HIGH SCHOOL TEACHERS AND THE HIGHER SECONDARY SCHOOL TEACHERS IN 'DEBATABLE CHANGES IN EDUCATION

S.No.	Description	No.	Mean	S.D.	't' value
1.	High School teachers	291	114.86	20.12	0.06
2.	Higher Secondary School teachers	284	114.02	13.37	

t = 0.06 Not Significant

The table reveals that there is no significant difference between the High School teachers and the Higher Secondary School teachers in 'Debatable Changes in Education', the first dimension of Teacher Innovativeness.

Therefore, the finding is that the High School teachers and Higher Secondary School teachers do not differ significantly in their Innovativeness, as far as 'Debatable Changes in Education' the first Dimension of Innovativeness is concerned.

The Table 4.33 presents the 't' test result in respect of the High School teachers and the teachers of Arts and Science Colleges.

TABLE 4.33

TABLE SHOWING THE 't' TEST RESULT IN RESPECT OF HIGH SCHOOL TEACHERS AND TEACHERS OF ARTS AND SCIENCE COLLEGES IN 'DEBATABLE CHANGES IN EDUCATION

S.No.	Description	No.	Mean	S.D.	't' value
1.	High School teachers	291	114.86	20.12	5.93
2.	Teachers of Arts and Science Colleges	281	105.89	15.89	

t = 5.93 Significant at 0.01 level

It is clear from the table 4.33 that the 't' value 5.93 is significant and that High School teachers are significantly higher than the teachers of Arts and Science Colleges in 'Debatable Changes in Education'.

Hence, the finding is that the teachers in High Schools are significantly higher than teachers in Arts and Science Colleges with regard to 'Debatable Changes in Education', of Teacher Innovativeness.

The following table 4.34 contains the 't' test result in respect of the High School teachers and Teacher educators.

TABLE 4.34

TABLE SHOWING THE 't' TEST RESULT IN RESPECT OF HIGH SCHOOL TEACHERS AND TEACHER EDUCATORS IN 'DEBATABLE CHANGES IN EDUCATION'

S.No.	Description	No.	Mean	S.D.	't' value
1.	High School teachers	291	114.86	20.12	
					0.91
2.	Teacher educators	144	113.25	15.76	

t = 0.91 Not Significant

The table discloses no significant difference between the High School teachers and the Teacher educators serving in colleges of education in the Dimension 'Debatable Changes in Education'.

Therefore, the finding is that teachers in High Schools and Teacher Educators in Colleges of Education do not differ significantly with regard to their Innovativeness as far as the Dimension 'Debatable Changes in Education' is concerned.

The table showing the 't' test result in respect of Higher Secondary School teachers and College teachers is given in the table that follows.

TABLE 4.35

TABLE SHOWING THE 't' TEST RESULT IN RESPECT OF HIGHER SECONDARY SCHOOL TEACHERS AND TEACHERS OF ARTS AND SCIENCE COLLEGES IN 'DEBATABLE CHANGES IN EDUCATION'

S.No.	Description	No.	Mean	S.D.	't' value
1.	Higher Secondary School teachers	284	114.02	13.37	6.57
2.	Teachers of Arts and Science Colleges	281	105.89	15.89	

t = 6.57 Significant at 0.01 level

From the table 4.35 it is evident that there is significant difference between Higher Secondary School teachers and teachers of Arts and Science Colleges in 'Debatable Changes in Education'.

Therefore, the finding is that the teachers in Higher Secondary Schools are significantly higher than teachers in Arts and Science Colleges in the Dimension 'Debatable Changes in Education' of Teacher Innovativeness.

The 't' test result in respect of Higher Secondary School teachers and Teacher Educators is presented in Table 4.36.

TABLE 4.36

TABLE SHOWING THE 't' TEST RESULT IN RESPECT OF HIGHER SECONDARY SCHOOL TEACHERS AND TEACHER EDUCATORS IN 'DEBATABLE CHANGES IN EDUCATION

S.No.	Description	No.	Mean	S.D.	't' value
1.	Higher Secondary School teachers	284	114.02	13.37	0.50
2.	Teacher educators	144	113.25	15.76	

t = 0.50 Not Significant

No significant difference is found between Higher Secondary School teachers and Teacher educators in 'Debatable Changes in Education' according to the foregoing table.

Hence the finding is that teachers of Higher Secondary School and Teacher educators do not differ significantly in their Innovativeness, with regard to the Dimension 'Debatable Changes in Education'.

The following table shows the 't' test result in respect of teachers of Arts and Science Colleges and Teacher educators.

TABLE 4.37

TABLE SHOWING THE 't' TEST RESULT IN RESPECT OF TEACHERS OF ARTS AND SCIENCE COLLEGES AND TEACHER EDUCATORS IN 'DEBATABLE CHANGES IN EDUCATION'

S.No.	Description	No.	Mean	S.D.	't' Value
1.	Teachers of Arts and Science Colleges	281	105.89	15.89	4.54
2.	Teacher educators	144	113.25	15.76	

t = 4.54 Significant at 0.01 level

The table 4.37 shows that there is significant difference between teachers of Arts and Science Colleges and teacher educators. Teacher educators are significantly higher than teachers in Arts and Science Colleges in 'Debatable Changes in Education'.

Hence, the finding is that teacher educators are significantly higher than teachers of Arts and Science Colleges in 'Debatable Changes in Education', the first Dimension of Innovativeness.

4.4.2. DIMENSION II - PROCESS OF CHANGE IN EDUCATION

The following table contains the 't' test result, in respect of High School teachers and Higher Secondary School teachers in 'Process of Change in Education', the second dimension of Teacher Innovativeness.

TABLE 4.38

TABLE SHOWING THE 't' TEST RESULT IN RESPECT OF HIGH SCHOOL TEACHERS AND HIGHER SECONDARY SCHOOL TEACHERS IN 'PROCESS OF CHANGE IN EDUCATION'

S. No.	Description	No.	Mean	S.D.	't' value
1.	High School teachers	291	199.36	37.64	0.96
2.	Higher Secondary School teachers	284	196.32	37.85	

t = 0.96 Not Significant

There is no significant difference between the two groups of teachers serving in High Schools and Higher Secondary Schools respectively.

The finding is that the High School teachers and Higher Secondary School teachers do not significantly differ in their Innovativeness regarding 'Process of Change in Education.'

The Table 4.39 presents the 't' test result in respect of High School teachers and teachers of Arts and Science Colleges.

TABLE 4.39

TABLE SHOWING THE 't' TEST RESULT IN RESPECT OF HIGH SCHOOL TEACHERS AND TEACHERS OF ARTS AND SCIENCE COLLEGES IN 'PROCESS OF CHANGE IN EDUCATION

S.No.	Description	No.	Mean	S.D.	't'value
1.	High School teachers	291	199.36	37.64	
					0.08
2.	Teachers of Arts and Science Colleges	281	199.11	29.55	

t = 0.08 Not Significant

It is revealed from the Table 4.39 that there is no significant difference between High School teachers and teachers of Arts and Science Colleges.

So the finding is that the teachers in High Schools are not significantly higher than the teachers in Arts and Science Colleges with reference to 'Process of Change in Education' of Teacher Innovativeness.

The following table shows the 't' test result in respect of the High School teachers and teacher educators.

TABLE 4.40

TABLE SHOWING THE 't' TEST RESULT IN RESPECT OF HIGH SCHOOL TEACHERS AND TEACHER EDUCATORS IN 'PROCESS OF CHANGE IN EDUCATION'

S. No.	Description	No.	Mean	S.D.	't' value
1.	High School teachers	291	199.36	37.64	3.38
2.	Teacher educators	144	185.33	42.08	

t = 3.38 Significant at 0.01 level

Significant difference is found according to the above table between High School teachers and teacher educators.

The finding is therefore that the teachers in High Schools are significantly higher than teacher educators in 'Process of Change in Education', the second Dimension of Teacher Innovativeness.

Significance of difference between the higher secondary school teachers and teachers of Arts and Science Colleges in 'Process of Change in Education' is found in the table that follows.

TABLE 4.41

TABLE SHOWING 't' TEST RESULT IN RESPECT OF HIGHER SECONDARY SCHOOL TEACHERS AND TEACHERS OF ARTS AND SCIENCE COLLEGES IN 'PROCESS OF CHANGE IN EDUCATION

S.No.	Description	No.	Mean	S.D.	't' value
1.	Higher Secondary School Teachers	284	196.32	37.85	0.97
2.	Teachers of Arts and Science Colleges	281	199.11	29.85	

t = 0.97 Not Significant

There is no significant difference between the two groups of teachers, as per the foregoing table.

The finding is that Higher Secondary School teachers and teachers of Arts and Science Colleges do not differ significantly in their Innovativeness in respect of 'Process of Change in Education'.

The Table 4.42 contains the 't' test result in respect of the Higher Secondary School teachers and teacher educators.

TABLE 4.42

TABLE SHOWING THE 't' TEST RESULT IN RESPECT OF HIGHER SECONDARY SCHOOL TEACHERS AND TEACHER EDUCATORS IN 'PROCESS OF CHANGE IN EDUCATION'

S. No.	Description	No.	Mean	S.D.	't' value
1.	Higher Secondary School teachers	284	196.32	37.85	2.63
2.	Teacher educators	144	185.33	42.08	

t = 2.63 Significant at 0.01 level

Significant difference is found between Higher Secondary School teachers and teacher educators in 'Process of Change in Education', according to the above table.

The finding, therefore, is that the teachers of Higher Secondary Schools are significantly higher than the teacher educators in the second Dimension of

the Teacher Innovativeness, namely, 'Process of Change in Education'

The 't' test result in respect of teachers of Arts and Science Colleges and the teacher educators is presented in the table that follows.

TABLE 4.43

TABLE SHOWING THE 't' TEST RESULT IN RESPECT OF TEACHERS OF ARTS AND SCIENCE COLLEGES AND TEACHER EDUCATORS IN 'PROCESS OF CHANGE IN EDUCATION'

S. No.	Description	No.	Mean	S.D.	't' value
1.	Teachers of Arts and Science Colleges	281	199.11	29.55	3.51
2.	Teacher Educators	144	185.33	42.08	

t = 3.51 Significant at 0.01 level

The above table reveals that there is significant difference between teachers of Arts and Science Colleges and Teacher Educators. The teachers of Arts and Science Colleges are significantly higher than the teacher educators.

Therefore the finding is that teachers in Arts and Science Colleges are significantly higher than teacher educators in 'Process of Change in Education', the second Dimension of Teacher Innovativeness.

4.4.3. DIMENSION - III - VALUES AND OPINIONS IN EDUCATION

The following table presents the 't' test result in respect of High School teachers and Higher Secondary School teachers in 'Values and Opinions in Education', the third Dimension of teacher innovativeness.

TABLE 4.44

TABLE SHOWING THE 't' TEST RESULT IN RESPECT OF HIGH SCHOOL TEACHERS AND HIGHER SECONDARY SCHOOL TEACHERS IN 'VALUES AND OPINIONS IN EDUCATION'

S.No.	Description	No.	Mean	S.D.	't' value
1.	High School teachers	291	206.51	28.18	1.45
2.	Higher Secondary School teachers	284	203.12	27.66	

t = 1.45 Not Significant

The above table shows that there is no

significant difference between the High School teachers and the Higher Secondary School teachers.

Hence the finding is that the High School teachers and Higher Secondary School teachers do not differ significantly in their Innovativeness in so far as 'Values and Opinions in Education' the third Dimension of Innovativeness is concerned.

The next table contains the 't' test result in respect of High School teachers and teachers of Arts and Science Colleges.

TABLE 4.45

TABLE SHOWING THE 't' TEST RESULT IN RESPECT OF HIGH SCHOOL TEACHERS AND TEACHERS OF ARTS AND SCIENCE COLLEGES IN 'VALUES AND OPINIONS IN EDUCATION'

S.No.	Description	No.	Mean	S.D.	't' value
1.	High School teachers	291	206.51	28.18	4.89
2.	Teachers of Arts and Science Colleges	281	195.82	23.98	

t = 4.89 Significant at 0.01 level

Significant difference is found between the two groups mentioned above.High School teachers are significantly higher than teachers of Arts and Science Colleges.

Thus the finding is that the teachers in High Schools are significantly higher than teachers in Arts and Science Colleges in respect of 'Values and Opinions in Education', the third Dimension in Teacher Innovativeness.

In the table that follows is given the 't' test result in respect of High School teachers and teacher educators.

TABLE 4.46

TABLE SHOWING THE 't' TEST RESULT IN RESPECT OF HIGH SCHOOL TEACHERS AND TEACHER EDUCATORS 'IN VALUES AND OPINIONS IN EDUCATION'

S.No.	Description	No.	Mean	S.D.	't' value
1.	High School teachers	291	206.51	28.18	1.94
2.	Teacher educators	144	200.87	28.61	

t = 1.94 Not significant

The above table discloses that there is no significant difference between the two groups of teachers.

The finding is that High School teachers and teacher educators do not significantly differ in 'Values and Opinions in Education', the third Dimension of Innovativeness.

The 't' test result in respect of Higher Secondary teachers and College teachers is found in the following table.

TABLE 4.47

TABLE SHOWING 't' TEST RESULT IN RESPECT OF HIGHER SECONDARY SCHOOL TEACHERS AND COLLEGE TEACHERS IN 'VALUES AND OPINIONS IN EDUCATION'

S.No.	Description	No.	Mean	S.D.	't' value
1.	Higher Secondary School teachers	284	203.12	27.66	3.35
2.	Teachers of Arts and Science Colleges.	281	195.82	23.98	

t = 3.35 significant at 0.01 level.

There is significant difference between the two groups.

The finding is that the Higher Secondary School teachers are significantly higher than the teachers in Arts and Science Colleges with regard to

'Values and Opinions in Education', the third Dimension of Teacher Innovativeness.

The next table presents the 't' test result in respect of Higher Secondary School teachers and teacher educators in 'Values and Opinions in Education'.

TABLE 4.48

TABLE SHOWING THE 't' TEST RESULT IN RESPECT OF HIGHER SECONDARY SCHOOL TEACHERS AND TEACHER EDUCATORS IN 'VALUES AND OPINIONS IN EDUCATION'

S.No.	Description	No.	Mean	S.D.	't' value
1.	Higher Secondary School teachers	284	203.12	27.66	0.77
2.	Teacher educators	144	200.87	28.61	

't' = 0.77 Not significant

It is evident from the table that there is no significant difference between the two groups of teachers.

Hence the finding is that the Higher Secondary School teachers and teacher educators do not significantly differ in their Innovativeness with regard to the third Dimension, namely 'Values and Opinions in Education'.

The 't' test result in respect of teachers of Arts and Science Colleges and teacher educators is given in the following table.

TABLE 4.49

TABLE SHOWING THE 't' TEST RESULT IN RESPECT OF TEACHERS OF ARTS AND SCIENCE COLLEGES AND TEACHER EDUCATORS IN 'VALUES AND OPINION IN EDUCATION'

S.No.	Description	No.	Mean	S.D.	't' value
1.	Teachers of Arts and Science Colleges	281	195.82	23.98	1.81
2.	Teacher educators	144	200.87	28.61	

t = 1.81 Not significant

There is no significant difference between the two groups of teachers of Arts and Science Colleges in the table shown above.

The finding therefore is that the teachers of Arts and Science Colleges and teacher educators do not differ significantly in their Innovativeness with regard to 'Values and Opinions in Education', the third Dimension of Teacher Innovativeness

4.5.0. COMPONENT-WISE ANALYSIS:

(A) 'SEX-WISE' ANALYSIS

In this section the component-wise analysis as well as interpretation of the data are presented. As already stated there are twenty one components that constitute Teacher Innovativeness.

The first seven components, namely, (1) Individualization (2) Curriculum Organization (3) Teaching Learning Process (4) Teaching Resources (5) Internal School Organization (6) Staff Development and (7) School Community Relationship belong to the first dimension, i.e. 'Debatable Changes in Education'.

The next eight components of Teacher Innovativeness have been classified under the second dimension, 'Process of Change in Education'. They are (1) Administrative Support (2) Staff Norms (3) System Norms (4) Complexity (5) Compatibility (6) Riskness (7) Localiteness and (8) Cosmopoliteness.

The last six components, (1) Traditionalism (2) Progressivism (3) Dogmatism (4) Venturesomeness (5) Conservatism and (6) Change Proneness relate to the third dimension 'Values and Opinions in Education'.

The analysis of all these components is done in respect of the major variable 'Sex difference' (male teachers Vs. female teachers) only.

I. DEBATABLE CHANGES IN EDUCATION

4.5.1. INDIVIDUALIZATION

The following table shows the 't' test result in respect of the male teachers and the female teachers with regard to the component 'Individualization' of Teacher Innovativeness.

TABLE 4.50

TABLE SHOWING THE 't' TEST RESULT IN RESPECT OF MALE TEACHERS AND FEMALE TEACHERS IN 'INDIVIDUALIZATION OF TEACHER INNOVATIVENESS

DESCRIPTION	Mean	S.D.	't' value
Male teachers	21.09	3.169	2.97
Female teachers	20.49	3.109	

t = 2.97 Significant at 0.01 level

The table reveals significant difference between men and the women. The finding is that male teachers are significantly higher than female teachers in 'Individualization' of Teacher Innovativeness.

4.5.2. CURRICULUM ORGANIZATION

The table that follows presents the 't' test result in respect of male teachers and female teachers in 'Curriculum Organization' of Teacher Innovativeness.

TABLE 4.51

TABLE SHOWING THE 't' TEST RESULT IN RESPECT OF MALE TEACHERS AND FEMALE TEACHERS IN 'CURRICULUM ORGANIZATION' OF TEACHER INNOVATIVENESS

DESCRIPTION	Mean	S.D.	't' VALUE
Male teachers	11.59	2.52	2.76
Female teachers	10.15	2.48	

t = 2.76 Significant at 0.01 level.

From the table it is clear that there is significant difference between the two groups of teachers. Hence it is found that male teachers are significantly higher than female teachers in 'Curriculum Development' of Teacher Innovativeness.

4.5.3. TEACHING LEARNING PROCESS

The 't' test result of male teachers and female teachers in 'Teaching Learning Process' of Teacher Innovativeness is given in table 4.52.

TABLE 4.52

TABLE SHOWING THE 't' TEST RESULT IN RESPECT OF MALE TEACHERS AND FEMALE TEACHERS IN 'TEACHING LEARNING PROCESS' OF TEACHER INNOVATIVENESS

DESCRIPTION	MEAN	S.D.	't' VALUE
Male teachers	18.43	3.54	0.04
Female teachers	18.41	3.47	

t = 0.04 Not Significant

The table shows no significant difference. Hence the finding is that there is no significant difference between the male teachers and the female teachers in 'Teaching Learning Process' of Teacher Innovativeness.

4.5.4. TEACHING RESOURCES

The following table contains the 't' test result in respect of male teachers and female teachers in 'Teaching Resources' of Teacher Innovativeness.

TABLE 4.53

TABLE SHOWING THE 't' TEST RESULT IN RESPECT OF MALE TEACHERS AND FEMALE TEACHERS IN 'TEACHING RESOURCES' OF TEACHER INNOVATIVENESS

DESCRIPTION	MEAN	S.D.	't' VALUE
Male teachers	15.61	3.93	2.13
Female teachers	14.12	3.32	

t = 2.13 Significant at 0.05 level

The table reveals significant difference between the two groups of teachers. The finding is that male teachers are significantly higher than female teachers in 'Teaching Resources' of Teacher Innovativeness.

4.5.5. INTERNAL SCHOOL ORGANISATION

In the table that follows is given the 't' test result in respect of male teachers and female teachers in the component 'Internal School Organisation' of Teacher Innovativeness.

TABLE 4.54

TABLE SHOWING 't' TEST RESULT IN RESPECT OF MALE TEACHERS AND FEMALE TEACHERS IN 'INTERNAL SCHOOL ORGANISATION' OF TEACHER INNOVATIVENESS

DESCRIPTION	MEAN	S.D.	't' VALUE
Male teachers	15.71	4.69	3.60
Female teachers	14.58	5.02	

t = 3.60 Significant at 0.01 level

The table shows significant difference between the men and women teachers. The finding is that male teachers are significantly higher than female teachers in 'Internal School Organisation' of Teacher Innovativeness.

4.5.6. STAFF DEVELOPMENT

The 't' test result in respect of male teachers and female teachers is presented in table 4.55 relating to 'Staff Development' of Teacher Innovativeness.

TABLE 4.55

TABLE SHOWING THE 't' TEST RESULT IN RESPECT OF MALE TEACHERS AND FEMALE TEACHERS IN 'STAFF DEVELOPMENT' OF TEACHER INNOVATIVENESS

DESCRIPTION	MEAN	S.D.	't' VALUE
Male teachers	18.79	3.49	4.43
Female teachers	17.70	4.07	

t = 4.43 Significant at 0.01 level

It is evident from the table that there is significant difference between the two groups of teachers. The finding is that male teachers are significantly higher than female teachers in 'Staff Development', another component of Teacher Innovativeness.

4.5.7. SCHOOL COMMUNITY RELATIONSHIP

The table that follows presents the 't' test result in respect of the male teachers and the female teachers in 'School Community Relationship' of Teacher Innovativeness.

TABLE 4.56

TABLE SHOWING THE 't' TEST RESULT IN RESPECT OF MALE TEACHERS AND FEMALE TEACHERS IN 'SCHOOL COMMUNITY RELATIONSHIP' OF TEACHER INNOVATIVENESS

DESCRIPTION	MEAN	S.D.	't' VALUE
Male teachers	11.99	2.68	0.90
Female teachers	11.82	3.00	

t = 0.90 Not Significant

No significant difference is found between the two groups of teachers as revealed by the table. The finding is that there is no significant difference between the male teachers and the female teachers in the component 'School Community Relationship' of Teacher Innovativeness.

II. PROCESS OF CHANGE IN EDUCATION

4.5.8. ADMINISTRATIVE SUPPORT

The following table contains the 't' test result in respect of male teachers and female teachers in 'Administrative Support' of Teacher Innovativeness.

TABLE 4.57

TABLE SHOWING THE 't' TEST RESULT IN RESPECT OF MALE TEACHERS AND FEMALE TEACHERS IN 'ADMINISTRATIVE SUPPORT' OF TEACHER INNOVATIVENESS

DESCRIPTION	MEAN	S.D.	't' VALUE
Male teachers	29.78	12.04	
			3.35
Female teachers	32.33	11.72	

t = 3.35 Significant at 0.01 level

The table discloses significant difference between the men and women teachers. Hence the finding is that female teachers are significantly higher than male teachers in 'Administrative Support,' a component of Teacher Innovativeness.

4.5.9. STAFF NORMS

In the table that follows is given the 't' test result in respect of male teachers and female teachers in the component 'Staff Norms' of Teacher Innovativeness.

TABLE 4.58

TABLE SHOWING THE 't' TEST RESULT IN RESPECT OF MALE TEACHERS AND FEMALE TEACHERS IN 'STAFF NORMS' OF TEACHER INNOVATIVENESS

DESCRIPTION	MEAN	S.D.	't' VALUE
Male teachers	21.64	7.92	2.51
Female teachers	22.90	7.72	

t = 2.51 Significant at 0.05 level

From the table it is clear that in this also there is significant difference between the two groups of teachers. The finding is that female teachers are significantly higher than male teachers in 'Staff Norms', another component of Teacher Innovativeness.

4.5.10. 'SYSTEM NORMS'

The 't' test result in respect of male teachers and female teachers in the component 'System Norms' of Teacher Innovativeness is given in the table that follows.

TABLE 4.59

TABLE SHOWING THE 't' TEST RESULT IN RESPECT OF MALE TEACHERS AND FEMALE TEACHERS IN 'SYSTEM NORMS' OF TEACHER INNOVATIVENESS

DESCRIPTION	MEAN	S.D.	't' VALUE
Male teachers	16.05	5.83	2.77
Female teachers	17.15	6.13	

t = 2.77 Significant at 0.01 level

In this component also there is significant difference between male teachers and female teachers. The finding that emerges is that female teachers are significantly higher than male teachers in the component 'System Norms' of Teacher Innovativeness.

4.5.11. COMPLEXITY

The following table presents the 't' test result in respect of male teachers and female teachers in another component 'Complexity' of Teacher Innovativeness.

TABLE 4.60

TABLE SHOWING THE 't' TEST RESULT IN RESPECT OF MALE TEACHERS AND FEMALE TEACHERS IN 'COMPLEXITY' OF TEACHER INNOVATIVENESS

DESCRIPTION	MEAN	S.D.	't' VALUE
Male teachers	22.88	5.21	3.37
Female teachers	21.73	5.39	

t = 3.37 Significant at 0.01 level

This table also discloses significant difference between the two groups of teachers. It is found that male teachers are significantly higher than female teachers in the component 'Complexity' of Teacher Innovativeness.

4.5.12. COMPATIBILITY

The table that follows contains the 't' test result in respect of the male teachers and the female teachers in the component 'Compatibility' of Teacher Innovativeness.

TABLE 4.61

TABLE SHOWING THE 't' TEST RESULT IN RESPECT OF MALE TEACHERS AND FEMALE TEACHERS IN 'COMPATIBILITY' OF TEACHER INNOVATIVENESS

DESCRIPTION	MEAN	S.D.	't' VALUE
Male teachers	22.81	5.38	
			2.42
Female teachers	21.14	5.74	

t = 2.42 Significant at 0.05 level

In this component too, there is significant difference between the men and women teachers. The finding is that male teachers are significantly higher than female teachers in the component 'Compatibility' of Teacher Innovativeness.

4.5.13. RISKNESS

The 't' test result in respect of male teachers and female teachers in the component 'Riskness' of Teacher Innovativeness is given in the following table.

TABLE 4.62

TABLE SHOWING THE 't' TEST RESULT IN RESPECT OF MALE TEACHERS AND FEMALE TEACHERS IN 'RISKNESS' OF TEACHER INNOVATIVENESS

DESCRIPTION	MEAN	S.D.	't' VALUE
Male teachers	16.97	7.11	2.77
Female teachers	18.24	7.12	

t = 2.77 Significant at 0.01 level

As shown by the table significant difference is there between male teachers and female teachers in this component also. The finding is that female teachers are significantly higher than male teachers in the component 'Riskness' of Teacher Innovativeness.

4.5.14. LOCALITENESS

The following table contains the 't' test result in respect of male teachers and female teachers in the component 'Localiteness' of Teacher Innovativeness.

TABLE 4.63

TABLE SHOWING THE 't' TEST RESULT IN RESPECT OF MALE TEACHERS AND FEMALE TEACHERS IN 'LOCALITENESS' OF TEACHER INNOVATIVENESS

DESCRIPTION	MEAN	S.D.	't' VALUE
Male teachers	33.52	6.97	
			3.91
Female teachers	31.15	7.79	

t = 3.91 Significant at 0.01 level

The table reveals significant difference between the two groups of teachers. The finding is that male teachers are significantly higher than female teachers in the component 'Localiteness' of Teacher Innovativeness.

4.5.15. COSMOPOLITENESS

The table that follows presents the 't' test result in respect of male teachers and female teachers in the component 'Cosmopoliteness' of Teacher Innovativeness.

TABLE 4.64

TABLE SHOWING THE 't' TEST RESULT IN RESPECT OF MALE TEACHERS AND FEMALE TEACHERS IN 'COSMOPOLITENESS' OF TEACHER INNOVATIVENESS

DESCRIPTION	MEAN	S.D.	't' VALUE
Male teachers	34.76	6.26	2.91
Female teachers	33.50	7.10	

t = 2.91 Significant at 0.01 level

In this component also, there is significant difference between the men and the women. The finding is that male teachers are significantly higher than female teachers in the component 'Cosmopoliteness' of Teacher Innovativeness.

III. VALUES AND OPINIONS IN EDUCATION

4.5.16. TRADITIONALISM

In the following table is given the 't' test result in respect of male teachers and female teachers in the component 'Traditionalism' of Teacher Innovativeness.

TABLE 4.65

TABLE SHOWING THE 't' TEST RESULT IN RESPECT OF MALE TEACHERS AND FEMALE TEACHERS IN 'TRADITIONALISM' OF TEACHER INNOVATIVENESS

DESCRIPTION	MEAN	S.D.	't' VALUE
Male teachers	37.17	6.36	1.41
Female teachers	36.87	6.51	

t = 1.41 Not Significant

The table discloses no significant difference between the two groups of teachers. Hence the finding is that there is no significant difference between the male teachers and the female teachers in the component 'Traditionalism' of Teacher Innovativeness.

4.5.17. PROGRESSIVISM

Table 4.66 presents the 't' test result in respect of male teachers and female teachers in the component, 'Progressivism' of Teacher Innovativeness.

TABLE 4.66

TABLE SHOWING 't' TEST RESULT IN RESPECT OF MALE TEACHERS AND FEMALE TEACHERS IN 'PROGRESSIVISM' OF TEACHER INNOVATIVENESS

DESCRIPTION	MEAN	S.D.	't' VALUE
Male teachers	38.48	7.84	2.39
Female teachers	36.68	7.77	

t = 2.39 Significant at 0.05 level

From the table it is clear that in this component, there is significant difference between men and women. The finding is that male teachers are significantly higher than female teachers in the component, 'Progressivism' of Teacher Innovativeness.

4.5.18. DOGMATISM

The table that follows contains the 't' test result in respect of male teachers and female teachers in the component 'Dogmatism' of Teacher Innovativeness.

TABLE 4.67

TABLE SHOWING THE 't' TEST RESULT IN RESPECT OF MALE TEACHERS AND FEMALE TEACHERS IN 'DOGMATISM' OF TEACHER INNOVATIVENESS

DESCRIPTION	MEAN	S.D.	't' VALUE
Male teachers	30.96	7.65	1.26
Female teachers	30.07	7.68	

t = 1.26 Not Significant

In this component, as disclosed by the table, there is no significant difference between the two groups of teachers, (men and women). The finding is that there is no significant difference between the male teachers and the female teachers in the component 'Dogmatism' of Teacher Innovativeness.

4.5.19. VENTURESOMENESS

The following table presents the 't' test result in respect of male teachers and female teachers in the component 'Venturesomenes' of Teacher Innovativeness.

TABLE 4.68

TABLE SHOWING THE 't' TEST RESULT IN RESPECT OF MALE TEACHERS AND FEMALE TEACHERS IN 'VENTURESOMENESS' OF TEACHER INNOVATIVENESS

DESCRIPTION	MEAN	S.D.	't' VALUE
Male teachers	31.15	7.19	
			0.94
Female teachers	31.54	5.97	

t = 0.94 Not Significant

It is evident from the table that there is no significant difference between men and women in this component. The finding is that there is no significant difference between male teachers and female teachers in the component 'Venturesomeness' of Teacher Innovativeness.

4.5.20. CONSERVATISM

The 't' test result in respect of male teachers and female teachers in the component 'Conservatism' is given in the table that is given below.

TABLE 4.69

TABLE SHOWING THE 't' TEST RESULT IN RESPECT OF MALE TEACHERS AND FEMALE TEACHERS IN 'CONSERVATISM' OF TEACHER INNOVATIVENESS

DESCRIPTION	MEAN	S.D.	't' VALUE
Male teachers	27.69	7.98	
			0.20
Female teachers	27.58	8.54	

t = 0.20 Not Significant

The table shows no significant difference between male teachers and female teachers. The finding is that there is no significant difference between male teachers and female teachers in the component 'Conservatism' of Teacher Innovativeness.

4.5.21. CHANGE PRONENESS

The following table presents the 't' test result in respect of male teachers and female teachers in the component 'Change Proneness' of Teacher Innovativeness.

TABLE 4.70

TABLE SHOWING THE 't' TEST RESULT IN RESPECT OF MALE TEACHERS AND FEMALE TEACHERS IN 'CHANGE PRONENESS' OF TEACHER INNOVATIVENESS

DESCRIPTION	MEAN	S.D.	't' VALUE
Male teachers	39.02	6.75	3.13
Female teachers	40.54	6.07	

t = 3.13 Significant at 0.01 level

As evident from the table there is significant difference between male teachers and female teachers in this component. The finding is that female teachers are significantly higher than male teachers in the component 'Change Proneness' of Teacher Innovativeness.

The table 4.71 contains the consolidated 't' test results of all the twenty one components of 'Teacher Innovativeness in respect of the male teachers and the female teachers.

TABLE 4.71

TABLE SHOWING THE CONSOLIDATED 't' TEST RESULTS IN RESPECT OF MALE TEACHERS AND FEMALE TEACHERS IN ALL THE 21 COMPONENTS OF TEACHER INNOVATIVENESS

Description	Male teachers significantly higher than female teachers	Female teachers significantly higher than male teachers	No significant difference between male teachers and female teachers
Dimension I 'Debatable Changes in Education'	1. Individualization 2. Curriculum Organization 3. Teaching Resources 4. Internal School Organization 5. Staff Development		1. Teaching Learning Process 2. School Community relationship
Dimension II 'Process of Changes in Education'	1. Complexity 2. Compatibility 3. Localiteness 4. Cosmopoliteness	1. Administrative Support 2. Staff Norms 3. System Norms 4. Riskness	
Dimension III 'Values and Opinions in Education'	1. Progressivism	1. Change Proneness	1. Traditionalism 2. Dogmatism 3. Venturesomeness 4. Conservatism

A close scrutiny of the data furnished in table 4.71 reveals the following.

In the first dimension of Teacher Innovativeness, namely 'Debatable Changes in Education' male teachers are significantly higher than female teachers in five components. In the remaining two components there is no significant difference between male teachers and female teachers.

In the second dimension of Teacher Innovativeness,'Process of Change in Education' male teachers are significantly higher than female teachers in four components while female teachers are significantly higher than male teachers in the other four components.

In the third dimension, 'Values and Opinions in Education' male teachers are significantly higher than female teachers in one component while female teachers are significantly higher than male teachers in another component, whereas in the remaining four components there is no significant difference between male teachers and female teachers.

In sum, of the 21 components of Teacher Innovativeness, in ten, namely, Individualization, Curriculum Organization, Teaching Resources, Internal School Organization, Staff Development, Complexity,

Compatibility, Localiteness, Cosmopoliteness and Progressivism male teachers are significantly higher than female teachers: in five components, namely, Administrative Support, Staff Norms, System Norms, Riskness and Change Proneness, female teachers are significantly higher than male teachers and in the remaining six components, namely, Teaching Learning Process, School Community Relationship, Traditionalism, Dogmatism, Venturesomeness and Conservatism there is no significant difference between male teachers and female teachers.

(B) SAMPLE-WISE ANALYSIS:

Further, the table that follows presents the components of Teacher Innovatives, classified under the three dimensions, displaying the mean values of each component.

TABLE 4.72

TABLE SHOWING THE COMPONENTS AND MEAN VALUES OF EACH COMPONENT

Dimension I 'Debatable changes in Education'	Mean	Dimension II 'Process of change in Education'	Mean	Dimension III 'Values and Opinions in Education	Mean
1. Individualization	41.58	1. Administrative Support	62.11	1. Traditionalism	74.04
2. Curriculum Organisation	21.74	2. Staff norms	44.54	2. Progressivism	75.16
3. Teaching and Learning Process	36.84	3. System norms	33.20	3. Dogmatism	61.03
4. Teaching Resources	29.73	4. Complexity	44.61	4. Venturesomeness	62.69
5. Internal School Organization	30.29	5. Compatibility	43.95	5. Conservatism	55.27
6. Staff Development	36.49	6. Riskness	35.31	6. Change Proneness	76.56
7. School Community Relationship	23.81	7. Localiteness	64.67		
		8. Cosmopoliteness	68.26		

From the foregoing table it is clear that in the first dimension 'Debatable Changes in Education' it is the first component 'Individualization' that has the highest mean value, 41.58 . 'Curriculum Organisation' the second component has the lowest mean value, 21.74 .

Among the components of the second dimension 'Process of Change in Education' 'Cosmopoliteness' the last component has the highest mean value, 68.26. 'System Norms' possesses the lowest mean value, 33.20.

In the case of the third dimension 'Values and Opinions in Education' it is 'Change Proneness' the last component that has the highest mean value, 76.56. The component 'Conservatism' has the lowest mean value, 55.27.

It is encouraging to note that of all the 21 components of Teacher Innovativeness it is 'Change Proneness' the component that possess the highest mean value, 76.56 while the component 'Curriculum Organisation' is the one that has the lowest mean value, 21.74.

This leads to the interpretation that teachers in Tamil Nadu are change-prone.

4.6.0. TEACHER INNOVATIVENESS AND TEACHER MORALE

The study has revealed that Teacher Innovativeness in Tamil Nadu is not high, it is above average only. Table 4.1 contains the data in this regard. The mean value is 56.94 only, hence the conclusion.

One of the objectives of the study is to find out whether Teacher Innovativeness has any correlation with Teacher Morale. The second part of the tool contains 100 items on Teacher Morale. The data collected and processed have revealed the level of teacher morale in Tamil Nadu.

The following table presents the distribution of scores of teacher morale of 1000 teachers.

TABLE 4.73

TABLE SHOWING THE DISTRIBUTION OF SCORES OF 1000 TEACHERS IN RESPECT OF TEACHER MORALE

S. No.	REAL LIMITS	MID POINT	f	d	fd	fd^2	cf
1.	37 - 45	41	0	-4	0	0	0
2.	45 - 53	49	40	-3	-120	360	40
3.	53 - 61	57	152	-2	-304	608	192
4.	61 - 69	65	332	-1	-332	332	524
5.	69 - 77	73	336	0	0	0	860
6.	77 - 85	81	116	1	116	116	976
7.	85 - 93	89	24	2	48	96	1000

$\Sigma f = 1000$ $\Sigma fd = -592$ $\Sigma fd^2 = 1512$

Mean = 68.27

The table discloses that the mean value of teacher morale scores of the 1000 teachers is 68.27. Since the value is more than 60 it has to be interpreted that teacher morale in Tamil Nadu is high.

(Data for tables 4.1 and 4.73 have been converted into percentages for the purpose of computation of Pearson's Product Moment Correlation.)

To find out whether there is any correlation between Teacher Innovativeness and Teacher Morale a Two Way Correlation table was prepared and presented in table 4.74.

TABLE 4.74

THE TWO-WAY CORRELATION TABLE SHOWING SCORES OF 1000 TEACHERS REGARDING TEACHER INNOVATIVENESS AND TEACHER MORALE.

X / Y	dy	dx	340–380	380–420	420–460	460–500	500–540	540–580	580–620	620–660	660–700	Fy	Fyd	Fyd^2	Fydxdy
			-4	-3	-2	-1	0		2	3	4				
245–269	-4					96	0	-16							
					24	12		4				40	-160	640	80
269–293	-3				72	36	0	-84			-48				
				12	12	8		28			4	64	-192	576	-24
293–317	-2				48	88	0	-64	-112	-48	-64				
				12	44	60		32	28	8	8	192	-384	768	-152
317–341	-1			72	16	64	0	-36	-40						
			24	8	64	64		36	20			216	-216	216	76
341–365	0		0	0	0	0	0	0	0						
			8	16	52	56	64	32	24			252	0	0	0
365–389	1		-16		-32	-36	0	16		12					
			4		16	36	24	16		4		100	100	100	-56
389–413	2				-16	-24	0	56	16						
					4	12	24	28	4			72	144	298	32
413–437	3			-36	-24	-48	0		24						
				4	4	16	16		4			44	132	396	-84
437–461	4						0	16							
							16	4				20	80	320	16
	Fx		12	44	108	264	288	180	80	12	12	1000	-496	3314	-112
	Fxdx		-48	-132	-216	-264	0	180	160	36	48	-236			
	Fxd^2		192	396	432	264	0	180	320	108	192	2084			
	Fxdxdy		-16	36	64	176	0	-112	-112	-36	-112	-112			

X - Teacher Innovativeness; y - Teacher Morale

Table 4.74 reveals that there is a negative correlation, that too is negligible, the value being -0.029. The conclusion is that there is no correlation between Teacher Innovativeness and Teacher Morale.

Teachers in Tamil Nadu possess above average innovativeness and high morale. However, their innovativeness has no correlation to their morale.

4.7.0. CONCLUSION

Analysis of data, the crux of this research given in detail in this chapter, comprises five major sections each dealing with a relevant aspect of the problem chosen for the study. The parameters applied have enabled the emergence of findings that are the outcome of the analysis as well as interpretation of the data. The innovativeness of Teachers in Tamil Nadu could thus be subjected to a detailed analysis and the correlation between Innovativeness and Teacher Morale also could be assessed.

Where tireless striving stretches its arms towards perfection,

Where the mind is led forward by Thee into everwidening

Into that heaven of freedom, my father, let my country awake,

GEETANJALI