CHAPTER V

ANALYSIS AND INTERPRETATION OF DATA

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CHAPTER V

ANALYSIS AND INTERPRETATION OF DATA

5.1 Introduction

This study was concerned with examining to what extent the leadership behaviour of the principals was related to the teacher morale in the educational setting. For this study, leadership behaviour was viewed as the teacher's perception of principal leader behaviour, utilizing the two dimensions: Consideration and Initiating structure. The teacher morale was limited to leader's perception of themselves on PTO instrument.

Most of the studies of organizations have been concerned with private business. Since the modern education is a multidimensional, complex organization containing a number of grades and divisions of the school, one might be tempted to generalize the result of the studies of business organizations to the educational setting. Corson (1960) stated, however, that there are factors which should produce differences between the administrative processes of academic administrators and those of business executives: the goals of modern education are more comprehensive and less clearly defined; the education produces a less tangible product; the students (consumers) have only a limited influence on the decisions made; the primary loyalties of most employees are
outside the school; the teacher community expects the right of self-direction, and the right of participation is granted to a greater number of employees. Consequently research specific to the leadership behaviour and management styles culminating into the teacher morale within the educational institution is needed.

Few studies of leadership styles and organizational structure have been conducted within a higher education setting. However, Carson (1965) reported on the perceptions and expectations of the community college dean's leadership behaviour as seen by various sub-populations within the academic community and Crookston (1972) attempted to outline the organizational characteristics.

After having described the differences between the researches on leadership behaviour, in education and elsewhere, it is now time to contemplate on the present research.

5.2 Perceived and Expected Leadership Behaviour Data

In the fourth chapter, it has been mentioned that the leadership behaviour as is (Real-perceived) and as it should be (Ideal-expected) would form the basis of an exploratory study. Accordingly the LED Questionnaire was administered to the teachers for their responses on two
frames of reference. One is ideal and the other is real. The research questions and the operating null hypotheses were also generated for directed research. The data gathered from three sub-populations namely, student leaders, teachers and principals of 40 schools, include Real and Ideal scores on the two dimensions, initiating structure and consideration of LBD Questionnaire. To have equal weightage from each school, equal numbers of teachers and student leaders were randomly selected after responses have been received. This was necessitated by the precision and accuracy required for making reliable and valid interpretations. (Edwards, 1968).

Tables 5.1 and 5.2 summarize the data noted above.

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Table 5.1

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<td>31.69</td>
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<td>32.82</td>
<td>31.69</td>
<td>32.82</td>
<td>31.69</td>
<td></td>
</tr>
</tbody>
</table>

N

156
As has been explained earlier, Table 5.1 and 5.2 contain the basic data of the study. The decimals have been disregarded and smoothed to the whole number. Student leaders and school teachers ratings appear as means for each institution and are treated as 'Index' scores. The ratings by principals represent individual scores for each institution.

It will be noted from table 5.1 that ranges of real i.e. perceived behaviour, scores for the three referent groups is between 13 and 32 with those of principal being the most restricted.

Ranges of the 'Ideal' i.e. expected behaviour scores are considerably more constricted for student leaders, teachers and principal, than are samples of their scores on the 'Real' scores.

5.3 Testing of Hypotheses

The investigator has formulated various hypotheses on the first phase of the research in the fourth chapter. Now, they would be taken up here one by one for testing them so that proper interpretations can be made and conclusions can be derived therefrom.

5.3.1 Study-1 : 'Real Vis-a-Vis 'Ideal' Ratings, i.e. Between Group Variance

An analysis of variance test was made for each dimension
of perceived (Real) and expected (Ideal) behaviour to determine the significance, if any, between the two groups under consideration i.e. students and teachers.

From tables 5.1 and 5.2 the means and variances are drawn to form a factorial design of the dimensions 2 x 2 x 2 representing student and teachers, leadership dimensions of consideration and initiating structures, and Real and Ideal frames of reference as given in the following table 5.3. The data in tables 5.1 and 5.2 are means and variances from each of the 40 schools.
Table 5.3

MEANS AND VARIANCES OF THE RATINGS BY STUDENTS AND TEACHERS ON LBDQ-REAL AND IDEAL FOR INITIATING STRUCTURE AND CONSIDERATION.

(Each entry of the table is the mean derived from 40 mean observations. Figs. in parentheses are variances)

<table>
<thead>
<tr>
<th>Frame of Reference (A)</th>
<th>Real IS (47.09)</th>
<th>Consi. IS (34.69)</th>
<th>Ideal Mean (32.82)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Leader Pattern (B)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Deader Pattern</td>
<td>36.57</td>
<td>44.03</td>
<td>51.78</td>
</tr>
<tr>
<td></td>
<td>(47.09)</td>
<td>(34.69)</td>
<td>(32.82)</td>
</tr>
<tr>
<td>Teacher</td>
<td>43.2</td>
<td>45.35</td>
<td>51.25</td>
</tr>
<tr>
<td></td>
<td>(19.71)</td>
<td>(16.53)</td>
<td>46.49</td>
</tr>
<tr>
<td>Mean</td>
<td>39.89</td>
<td>43.79</td>
<td>51.52</td>
</tr>
<tr>
<td></td>
<td>41.84</td>
<td>48.1</td>
<td>44.97</td>
</tr>
</tbody>
</table>

The $F_{max}$ statistics for the homogeneity of variance test (Edwards 1968) is 4.07 which is not significant at .01 level. Hence it was assumed that there was equal variability in the mean scores. This paved the way for the analysis of the variance of the data presented in table 5.3.

The ANOVA summary is given in table 5.4.
Table 5.4.
ANOVA SUMMARY OF 2 x 2 x 2 FACTORIAL DESIGN

<table>
<thead>
<tr>
<th>Source</th>
<th>df</th>
<th>SS</th>
<th>MSS</th>
<th>F</th>
<th>p*</th>
</tr>
</thead>
<tbody>
<tr>
<td>Frame of ref. (A)</td>
<td>1</td>
<td>785.01</td>
<td>785.01</td>
<td>22.37</td>
<td>.01</td>
</tr>
<tr>
<td>Leader Patterns (B)</td>
<td>1</td>
<td>575.67</td>
<td>575.67</td>
<td>16.41</td>
<td>.01</td>
</tr>
<tr>
<td>Respondents (C)</td>
<td>1</td>
<td>184.23</td>
<td>184.23</td>
<td>5.25</td>
<td>.05</td>
</tr>
<tr>
<td>AB</td>
<td>1</td>
<td>42.63</td>
<td>42.63</td>
<td>1.22</td>
<td>ns</td>
</tr>
<tr>
<td>AC</td>
<td>1</td>
<td>17.67</td>
<td>17.67</td>
<td>0.5</td>
<td>ns</td>
</tr>
<tr>
<td>BC</td>
<td>1</td>
<td>39.56</td>
<td>39.56</td>
<td>1.13</td>
<td>ns</td>
</tr>
<tr>
<td>ABC</td>
<td>1</td>
<td>0.005</td>
<td>0.005</td>
<td>-</td>
<td>ns</td>
</tr>
<tr>
<td>Error</td>
<td>312</td>
<td>10948.08</td>
<td>35.09</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Total</td>
<td>319</td>
<td>12592.855</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

\[
F_{312, .05} = 3.84
\]

\[
F_{312, .01} = 6.64
\]

The F ratio obtained are found in table 5.4.

The conclusions derived from the ANOVA summary are as under:

1. The F ratio of 22.37 as represented by Real versus Ideal frame of reference is highly significant at .01 level. Hence the null hypothesis that Ideal and Real scores do not differ is rejected. The mean of the Ideal score is 48.1 which is significantly higher than the mean 41.84 for Real score. Hence it was concluded that the student leaders and teachers in the overall
sample viewed the perceived and expected principals' behaviour differently.

2. The F ratio of 16.41 for the leadership patterns turns out to be highly significant at .01 level. Hence the null hypothesis that consideration scores and initiating structure scores do not differ is rejected. The mean of the consideration (Real + Ideal) score is 47.66 which is significantly higher than the mean of the initiating structure (Real + Ideal) 42.29. Hence it was concluded that the consideration scores and the initiating structure scores of the overall sample for the perceived and expected principal behaviour differed.

3. The F ratio for respondents (teachers and students) is 5.25 which is significant at .05 level. Hence the null hypothesis that the teachers and the student leader's scores on Real and Ideal scores for the two dimensions of leadership behaviour do not differ is rejected. The mean of the teacher's response is 46.49 which is significantly higher at .05 level than the mean (43.25) of the student leaders. Hence it was concluded that the teachers and the student leaders viewed principal's leadership behaviour in a different manner.
Because of the above three F ratios being significant, it is necessary to prove the facts deeply. In doing this, questions posed in chapter 4 are considered.

Table 5.5 presents the results obtained when mean ratings are compared and provides the data for answering questions under hypotheses 3, 4 and 5 formulated in chapter 4. A significant t-value suggests that an actual difference exists between the two mean scores that are compared. The data in table 5.5 served to answer the two questions posed earlier.
Table 5.5
SIGNIFICANCE OF THE DIFFERENCES BETWEEN MEAN RATINGS FOR BOTH DIMENSIONS, 'REAL' AND 'IDEAL' BY RESPONDENT CATEGORIES

<table>
<thead>
<tr>
<th></th>
<th>Students</th>
<th></th>
<th>Teachers</th>
<th></th>
<th>Principals</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Mean</td>
<td>t</td>
<td>Mean</td>
<td>t</td>
<td>Mean</td>
<td>t</td>
</tr>
<tr>
<td>1</td>
<td>Consideration-Real</td>
<td>41.43</td>
<td>**</td>
<td>46.15</td>
<td>**</td>
<td>41.8</td>
</tr>
<tr>
<td></td>
<td>VS</td>
<td></td>
<td>2.77</td>
<td>2.80</td>
<td>7.08</td>
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<tr>
<td></td>
<td>Initiating struct-Real</td>
<td>36.75</td>
<td></td>
<td>43.2</td>
<td></td>
<td>47.68</td>
</tr>
<tr>
<td>2</td>
<td>Consideration-Ideal</td>
<td>51.78</td>
<td>**</td>
<td>51.25</td>
<td>**</td>
<td>51.9</td>
</tr>
<tr>
<td></td>
<td>VS</td>
<td></td>
<td>5.97</td>
<td>7.20</td>
<td>3.42</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Initiating struct-Ideal</td>
<td>44.04</td>
<td></td>
<td>45.35</td>
<td></td>
<td>49.88</td>
</tr>
<tr>
<td>3</td>
<td>Consideration-Real</td>
<td>41.43</td>
<td>**</td>
<td>46.15</td>
<td>**</td>
<td>41.8</td>
</tr>
<tr>
<td></td>
<td>VS</td>
<td></td>
<td>6.56</td>
<td>5.46</td>
<td>15.78</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Consideration-Ideal</td>
<td>51.78</td>
<td></td>
<td>51.25</td>
<td></td>
<td>51.9</td>
</tr>
<tr>
<td>4</td>
<td>Initiating struct-Real</td>
<td>36.75</td>
<td>**</td>
<td>43.2</td>
<td>**</td>
<td>47.68</td>
</tr>
<tr>
<td></td>
<td>VS</td>
<td></td>
<td>5.13</td>
<td>2.26</td>
<td>2.76</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Initiating struct-Ideal</td>
<td>44.03</td>
<td></td>
<td>45.35</td>
<td></td>
<td>49.88</td>
</tr>
</tbody>
</table>

\[ t.01 (dfx) = 2.58 \]
\[ t.05 (dfx) = 1.96 \]

It will be observed that students perceived consideration significantly more than the initiating structure. They also expected more of consideration than they perceived in the principal's behaviour. They also expected more of initiating structure than they perceived.
Teachers perceived more of consideration than of the initiating structure dimension. They expected more of consideration dimension in the principal's behaviour than what it was. Regarding the initiating structure dimension, there was no significant difference between the Real and the Ideal score but the trend is found for the stress on the more of initiating structure than it was perceived.

It is interesting to note regarding the Real and Ideal scores on the two dimensions. The principal perceived significantly more of initiating structure dimension than of consideration. However, they stressed more of consideration dimension in their Real score, than that of initiating structure. Again they expected significantly more of initiating structure than they perceived.

5.3.2 Study-2 Correlations between Respondent's Ratings

The comparison of student leaders ratings of the principal's leadership behaviour with those of the principals' self ratings required a method of analysis different from the analysis of variance (Ackoff 1957). This is because only a single principal participated from each institution. To handle this situation statistically, the mean score for student leaders of an institution was taken as an index value for the group with the same procedure employed for school teachers. These index values and the single ratings by
principals were compared by computing rank-difference correlations.

The correlations obtained are presented in table 5.6. They provide a test for hypothesis 2 by answering the questions:

(a) Do student leaders' perceptions or an expectation for the principals' behaviour differ significantly from those of teachers?

(b) Do these different groups perceive differing styles of leader behaviour from the Principal?

(c) Does the principal encounter conflict resulting from different expectations of the groups with which he must relate?

A significant positive correlation indicates that two groups agreed substantially in their ratings of the principal. Lack of significant correlation indicates slight agreement while a significant negative correlation suggests disagreement.
Table 5.6
RANK DIFFERENCE CORRELATIONS BETWEEN RESPONDENT GROUPS BY DIMENSION, 'REAL' AND 'IDEAL'

<table>
<thead>
<tr>
<th>Correlation</th>
<th>Real Consideration</th>
<th>Real Initiation Structure</th>
<th>Ideal Consideration</th>
<th>Ideal Initiation Structure</th>
</tr>
</thead>
<tbody>
<tr>
<td>1 Student leaders Vs Principals</td>
<td>.39</td>
<td>.37</td>
<td>.32</td>
<td>.30</td>
</tr>
<tr>
<td>2 Student leaders Vs Teachers</td>
<td>.79*</td>
<td>.61*</td>
<td>.87*</td>
<td>.84*</td>
</tr>
<tr>
<td>3 Teachers Vs Principals</td>
<td>.37</td>
<td>.35</td>
<td>.52*</td>
<td>.62*</td>
</tr>
</tbody>
</table>

Coefficients required for significance at df = 38,
$r = .41$ at .01 level

It will be noted from table 5.6 that there were no significant correlations of the student leaders and principals. There were two out four correlations significant between teachers and principals whereas all four correlations between student leaders and teachers were significant.

5.3.3 Discussion of the Results of the First Phase

1. It was observed through analysis of variance that the LBDQ scores of student leaders as well as teachers differed significantly when they responded on 'Real'.
and 'Ideal' frame of reference (table 5.4). This means that both the reference groups disagreed with the present leadership behaviour as compared with their 'Ideal' scores. They expected more of consideration and initiating dimensions in the present leadership.

2. Secondly, both the reference groups stressed more of consideration than initiating structure (table 5.4). This means human relationships in group were important aspect in organization.

3. Student leaders and principals disagreed in their perceptions and expectations of the principal's behaviour on both the dimensions of consideration and initiating structure (table 5.6).

4. Student leaders and teachers taken as groups, agreed on their perceptions and expectations of the principal's behaviour on both the dimensions of consideration and initiating structure (table 5.6).

5. Teachers and principals taken as groups agreed on their expectations on both the dimensions of LBDQ whereas they disagreed on their perceptions on both the dimensions consideration and initiating structure (table 5.6).

6. There was no significant interaction between or among the different variables (table 5.4).
5.4 Identification of Leadership Behaviour Patterns

The principals' leadership behaviour in this study was derived from teachers' perceptions of their principals as measured by LBDQ. This instrument, as pointed out previously, consists of the two dimensions initiating structure and consideration. These two dimensions may be translated respectively as emphasizing goal achievement and group maintenance. It is reasonable to assume, then, that if a leader is to be successful he must exhibit high performance on both dimensions. Behaviour patterns of various leaders will differ, some may be high on both, some high on one and low on another, and some low on both. Halpin (1959) proposed that this may be best illustrated by plotting each leader's scores from the two dimensions in four quadrants formed by co-ordinates represented by the means of the two dimensions. The data collected on LBDQ scores show that the means are 43 and 47 for initiating structure and consideration respectively. The overall data are given in Figure 5.1. In figure 2, the co-ordinates determine four quadrants which from 1 to 4 are:

1. High initiating structure and high consideration.
2. Low initiating structure and high consideration.
3. Low initiating structure and low consideration.
4. High initiating structure and low consideration.
### FIG. 5.1 QUADRANTS' SCHEME FOR ARRANGING DATA ON TWO DIMENSIONS

<table>
<thead>
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<th>Consideration</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>H</strong></td>
</tr>
<tr>
<td>---</td>
</tr>
<tr>
<td>48</td>
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<tr>
<td>47</td>
</tr>
<tr>
<td>48</td>
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<td>307.17</td>
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<tr>
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</tr>
<tr>
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</tbody>
</table>

Initiating Structure 43

<table>
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<tr>
<th><strong>L</strong></th>
<th><strong>H</strong></th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>S</strong></td>
<td><strong>C</strong></td>
</tr>
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<tr>
<td>39.75</td>
<td>43.75</td>
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</table>

<table>
<thead>
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<th><strong>L</strong></th>
<th><strong>H</strong></th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>S</strong></td>
<td><strong>C</strong></td>
</tr>
<tr>
<td>39.63</td>
<td>49.56</td>
</tr>
</tbody>
</table>

n=10

n=9

n=11
From the data analysed in this study and by using the quadrant scheme (Fig. 2) it was revealed that 10 of the principals were high on both the dimensions. Approximately 25 per cent of the principals sampled were perceived by their staff as being high on both dimensions and therefore effective leaders.

Nine principals in quadrant III were found to be low on both dimensions. Leader behaviour in this quadrant (III) has been characterized as being ineffective and frequently accompanied by group class.

Eleven principals in quadrant II are also ineffective. They exude human kindness but lose sight of the job to be done with the realm of the dimension initiating structure.
Ten of the principals in quadrant IV are perceived as being intent in getting a job done well but lose sight of the fact that they are dealing with human beings. Seventy five per cent of the principal sample were perceived by their staff to be lacking in one or both dimensions which characterize effective leadership.

5.4.1 Study-3: Leadership Behaviour Pattern

It is generally felt by the general public that the principals of all the schools are generally natural leaders and they exhibit similar and identical leadership behaviour. To test this hunch, the following null hypothesis was formulated and put to Chi Square test.

Ho: The principals of the secondary schools in the sample are distributed evenly among the four quadrants.

To test the hypothesis, the following data given in table 5.7 were used.
Table 5.7
NUMBER OF PRINCIPALS IN EACH QUADRANT

<table>
<thead>
<tr>
<th>Leadership Pattern</th>
<th>HH</th>
<th>LH</th>
<th>LL</th>
<th>HL</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>No. of schools</td>
<td>10</td>
<td>11</td>
<td>9</td>
<td>10</td>
<td>40</td>
</tr>
<tr>
<td>% age</td>
<td>25</td>
<td>27.5</td>
<td>22.5</td>
<td>25</td>
<td>100</td>
</tr>
</tbody>
</table>

\[ \chi^2 = 0.2 \]

With 3 df the \( \chi^2 \) value of 0.2 was found to be insignificant. So the null hypothesis that the principals were distributed evenly among the four quadrants was not rejected.

The above study is crucial in that the leaders could discriminate leadership behaviour of their principals and it had also thrown light on the equal spread of different patterns of leadership behaviour as tested above. This is shown graphically in Figure 5.3.
5.5 Retrospect and Prospect

Having come to know from the first phase of an exploratory research that teachers could discriminate the behaviours of the principals, it is now time to identify the teacher morale serving under differential patterns of leadership. The importance of the study of teacher morale is essential when a national trend in what has been popularly termed "teacher militancy" has firmly emerged. There is no geographical limit to such militancy. It is a global problem and hence Thailand is no exception to this.
The matter is worsened when it had been shown in the distribution of leadership behaviour patterns that only 25 per cent of the principals in the Eastern Region of Thailand was effective in the organization. The rest were uneffective. It would be interesting to study what would be the relationships between teachers and principals having different patterns of leadership behaviour. To be more specific the study was concerned with examining to what extent the leadership behaviour of the principals of secondary schools was related to teacher morale serving under them.

For this study leadership behaviour was viewed as the teacher's perception of principal leader behaviour, utilizing the two dimensions consideration and initiating structure as discussed earlier in this chapter.

Teacher morale was limited to teacher's perception of themselves as participants in the productive work of the group in the school.

Earlier, the leadership behaviour patterns have been identified and discussed. Now the problem of identifying teacher morale would be discussed in the subsequent paragraphs.

5.6 Identification of Teacher-Morale

The first hypothesis of the second phase concerned with the relationship between the leadership behaviour pattern of
the principal and the teacher morale. Before testing this hypothesis, the teacher morale of the teachers serving in the schools should be known.

To determine the teacher morale in secondary schools, the Purdue Teacher Opinionnaire (PTO) has been used. The PTO is an instrument consisting of 100 items distributed over ten factors. The distribution of items under each factor, its test retest reliability coefficients and its short description have been discussed in chapter 4. So it is not desirable to repeat here.

PTO does not only yield a total score indicating the general level of teacher morale but it also provides meaningful sub-scores which distinguish morale into ten dimensions or factors. The factor scores can be obtained by summing up the weights assigned to the items belonging to a given factor, and the total score can be obtained by summing up the ten factor sub-scores. The maximum possible score for each respondent is 400 while minimum score is 100.

The teacher morale scores for each school was computed by administering the PTO to the teachers of the school. The teacher morale was limited to teacher's perception of themselves on PTO instrument.

The overall sample selected for the research consisted of principals, teachers and student leaders. The schools were
selected randomly from the B.R. of Thailand. Similarly, the teachers of the schools were also randomly chosen for LBDQ and PTO administration. The overall picture of the sub-population is broken up in the following table 5.7.1.

Table 5.7.1

<table>
<thead>
<tr>
<th>Quadrants</th>
<th>I</th>
<th>II</th>
<th>III</th>
<th>IV</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>Size of School</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Small (upto 1000 enrollments)</td>
<td>7</td>
<td>1</td>
<td>0</td>
<td>0</td>
<td>8</td>
</tr>
<tr>
<td>Medium (1001-2000)</td>
<td>3</td>
<td>9</td>
<td>7</td>
<td>6</td>
<td>25</td>
</tr>
<tr>
<td>Large (2001+)</td>
<td>0</td>
<td>1</td>
<td>2</td>
<td>4</td>
<td>7</td>
</tr>
<tr>
<td>Total</td>
<td>10</td>
<td>11</td>
<td>9</td>
<td>10</td>
<td>40</td>
</tr>
</tbody>
</table>

| LBDQ Responses received from Students | 200 | 332 | 212 | 254 | 998 |
| Principals | 10 | 11 | 9 | 10 | 40 |
| Teachers | Male | 162 | 147 | 138 | 173 |
| Female | 55 | 76 | 66 | 76 |
| Total | 217 | 223 | 206 | 251 | 891 |

| PTO responses received from Teachers of different sex | M | 121 | 131 | 122 | 139 |
| F | 22 | 29 | 31 | 33 |
| Total | 140 | 150 | 153 | 172 | 615 |

4.1 PTO responses received according to Age categories

<table>
<thead>
<tr>
<th>Age categories</th>
<th>1 (upto 25 years)</th>
<th>2 (26-35 years)</th>
<th>3 (36 years)</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>42</td>
<td>26</td>
<td>30</td>
<td>19</td>
</tr>
<tr>
<td>2</td>
<td>78</td>
<td>112</td>
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<tr>
<td>Total</td>
<td>140</td>
<td>150</td>
<td>153</td>
<td>172</td>
</tr>
</tbody>
</table>

4.2 PTO responses received from different salary slabs

<table>
<thead>
<tr>
<th>Salary slabs</th>
<th>1 (2301 to 4000 Baht)</th>
<th>2 (4001 to 5500 Baht)</th>
<th>3 (5501 to 7500 Baht)</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>34</td>
<td>22</td>
<td>25</td>
<td>13</td>
</tr>
<tr>
<td>2</td>
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<td>35</td>
</tr>
<tr>
<td>Total</td>
<td>140</td>
<td>150</td>
<td>153</td>
<td>172</td>
</tr>
</tbody>
</table>

4.3 PTO responses received from teachers of Low qualification

| Low qualification | 104 | 124 | 111 | 115 |
| High qualification | 36 | 26 | 42 | 57 |
| Total | 140 | 150 | 153 | 172 | 615 |
To decide whether the score indicates high, average or low morale, the mean of the score of each factor of PTO was calculated for each school. The sub-score of a factor which was above mean was considered high on that factor and that sub-score which was below mean was considered low morale sub-score.

Similarly the mean of the composite morale score was computed. Those schools which obtained scores higher than the mean score was considered schools with high morale while schools obtaining lower scores than the means were considered low morale schools.

The data on PTO received from 560 teachers of the forty schools are reported in table 5.8.

The minimum number of teachers in one particular quadrant determined the number of teachers to be taken randomly from other schools from which more responses had occurred. The minimum number in one quadrant was 140. Hence 140 teachers from each quadrant were taken randomly. This would facilitate computation and decrease variability in the cells of the design, leading thereby the precision and accuracy of the interpretations.

For determining the leadership quadrants the table 5.1 was consulted. The PTO scores of the teachers belonging
To respective quadrant were summated and the means and standard deviations were computed. Each quadrant represents 140 teachers whose morale scores factor-wise are reported in Table 5.8.

<table>
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<th>FTO Factors</th>
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<th>Leadership Quadrants</th>
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<tr>
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<td></td>
<td>H H</td>
<td>H L</td>
</tr>
<tr>
<td>F1</td>
<td>( \bar{X} )</td>
<td>62.40</td>
<td>58.44</td>
</tr>
<tr>
<td></td>
<td>(80) SD</td>
<td>6.71</td>
<td>4.82</td>
</tr>
<tr>
<td>F2</td>
<td>( \bar{X} )</td>
<td>57.22</td>
<td>60.11</td>
</tr>
<tr>
<td></td>
<td>(80) SD</td>
<td>4.77</td>
<td>6.91</td>
</tr>
<tr>
<td>F3</td>
<td>( \bar{X} )</td>
<td>42.00</td>
<td>40.50</td>
</tr>
<tr>
<td></td>
<td>(56) SD</td>
<td>7.11</td>
<td>6.78</td>
</tr>
<tr>
<td>F4</td>
<td>( \bar{X} )</td>
<td>27.45</td>
<td>26.11</td>
</tr>
<tr>
<td></td>
<td>(28) SD</td>
<td>7.04</td>
<td>8.11</td>
</tr>
<tr>
<td>F5</td>
<td>( \bar{X} )</td>
<td>39.51</td>
<td>39.40</td>
</tr>
<tr>
<td></td>
<td>(44) SD</td>
<td>6.92</td>
<td>6.81</td>
</tr>
<tr>
<td>F6</td>
<td>( \bar{X} )</td>
<td>16.82</td>
<td>15.33</td>
</tr>
<tr>
<td></td>
<td>(20) SD</td>
<td>6.41</td>
<td>3.22</td>
</tr>
<tr>
<td>F7</td>
<td>( \bar{X} )</td>
<td>18.00</td>
<td>16.43</td>
</tr>
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<td></td>
<td>(32) SD</td>
<td>7.32</td>
<td>7.02</td>
</tr>
<tr>
<td>F8</td>
<td>( \bar{X} )</td>
<td>17.11</td>
<td>15.27</td>
</tr>
<tr>
<td></td>
<td>(20) SD</td>
<td>5.18</td>
<td>4.00</td>
</tr>
<tr>
<td>F9</td>
<td>( \bar{X} )</td>
<td>19.32</td>
<td>18.31</td>
</tr>
<tr>
<td></td>
<td>(20) SD</td>
<td>5.19</td>
<td>3.44</td>
</tr>
<tr>
<td>F10</td>
<td>( \bar{X} )</td>
<td>17.26</td>
<td>17.34</td>
</tr>
<tr>
<td></td>
<td>(20) SD</td>
<td>6.41</td>
<td>4.78</td>
</tr>
</tbody>
</table>

Quadrant \( \bar{X} \) are the means of respective quadrant.

The figures in parentheses indicate maximum score of the factor.
The quadrants of leadership behaviour of the principals of 40 schools were arranged according to the teachers serving in that school under the principals manifesting the quadrants.

5.7 Selection of Statistical Technique

The raw scores of teacher morale on PTO could be transformed in Stanine scores as advocated by Ramphel and Bantley. But the major limitation of this research is that the PTO instrument has not been standardized on the Thai population. Secondly the translation of PTO in Thai language is also not standardized. The investigator knew these bottle-necks from the start of the research work.

The third major limitation was the uneven teachers in school who responded to the instrument for morale score. If we could analyse raw scores by parametric techniques, certain assumptions regarding normality of scores and homoscedasticity could not be assumed in this particular research data. Still however, if we would isolate from the sample certain subjects who could be dischotomized or trichotomized for purposes of forming Randomized Block Design for analysis, these assumptions are automatically met with. In the concluding part of this chapter, the investigator wants to go for such designs for parametric techniques to be applied to the controlled variables like sex, salary, qualifications and age of teachers.
Now the issue at hand was to analyse the data on morale score (which are raw scores) with parametric or non-parametric technique. Many researches on leadership behaviour or on teacher's attitude have been carried out with both the techniques of analysis. When once the limitation are known, it is wise for the investigator to go for non-parametric technique for the classification of morale score (Siegel, 1956).

The overall basic data on individual factors of PTO were transformed in categorical data school-wise and the morale status of each school regarding the factors are given in table 5.9 in which abbreviations H.A. and L represent High Average and Low morale status.

5.8 Classification of Schools Morale-wise

On the basis of the morale score of each school perceived by the teachers serving in it, the schools had been categorized into High, Average and Low morale group. The classification of the school depends on its composite morale score as High, Average or Low. The cut-off point taken into consideration was the mean of the composite score. The sub-scores on 10 factors were also categorized on the basis of the mean of that sub-score. The final picture of each school as regards its status on morale factor-wise is laid down below in table 5.9.
# Table 5.9

THE PTO FACTOR-WISE STATUS ON TEACHER MORALE OF 40 SCHOOLS OF E.R. OF THAILAND

<table>
<thead>
<tr>
<th>Sr. No. of schools</th>
<th>$F_1$</th>
<th>$F_2$</th>
<th>$F_3$</th>
<th>$F_4$</th>
<th>$F_5$</th>
<th>$F_6$</th>
<th>$F_7$</th>
<th>$F_8$</th>
<th>$F_9$</th>
<th>$F_{10}$</th>
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<tbody>
<tr>
<td>1</td>
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<td>H</td>
<td>H</td>
<td>H</td>
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<td>L</td>
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**Table 5.9 contd.**

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<td>40</td>
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</tbody>
</table>
From table 5.9, each PTO factor was shown quadrant-wise in Table 5.9.1 given below:

Table 5.9.1

<table>
<thead>
<tr>
<th>PTO Factors in Relation to Quadrants</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
</tr>
<tr>
<td>-----------</td>
</tr>
<tr>
<td>P1</td>
</tr>
<tr>
<td>P2</td>
</tr>
<tr>
<td>P3</td>
</tr>
<tr>
<td>P4</td>
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<tr>
<td>P5</td>
</tr>
<tr>
<td>P6</td>
</tr>
<tr>
<td>P7</td>
</tr>
<tr>
<td>P8</td>
</tr>
<tr>
<td>P9</td>
</tr>
<tr>
<td>P10</td>
</tr>
</tbody>
</table>
Table 5.9.2

<table>
<thead>
<tr>
<th>QUADRANTS AND PTO FACTORS</th>
<th>S + (H,H)</th>
</tr>
</thead>
<tbody>
<tr>
<td>(HL) 10</td>
<td>(L,H)</td>
</tr>
<tr>
<td>10</td>
<td>(L,L)</td>
</tr>
<tr>
<td>H - 1,2,4</td>
<td>H - 1,2,4,6,7,8,9,10</td>
</tr>
<tr>
<td>A - 5,6,10</td>
<td>A - 5</td>
</tr>
<tr>
<td>L - 3,7,8,9</td>
<td>L - 3</td>
</tr>
<tr>
<td>H - 4,10</td>
<td>H - 4,10</td>
</tr>
<tr>
<td>A - 5</td>
<td>A - 5</td>
</tr>
<tr>
<td>A - 6</td>
<td>A - 6</td>
</tr>
<tr>
<td>L - 7</td>
<td>L - 7</td>
</tr>
<tr>
<td>L - 8</td>
<td>L - 8</td>
</tr>
<tr>
<td>L - 9</td>
<td>L - 9</td>
</tr>
<tr>
<td>L - 10</td>
<td>L - 10</td>
</tr>
</tbody>
</table>

(L,L)  
(9)  
L - 1 - A  
L - 2 - L  
H - 3 - H

(L,H)  
(11)  
H - 3,4,5,8  
A - 1,6,9  
A - 2,7,10  
A - 7 - L  
L - 8 - H  
L - 9 - A  
L - 10 - L
5.8.1 Testing of Hypotheses

Study-4: Morale Status of Schools

Referring to table 5.9, it would be observed that the school differs in teacher morale category factor-wise. This would affect their morale as a whole which would be reflected in the composite morale score. The issue at this juncture would be to know whether different schools differed in their morale status based on individual factors. For this the following general hypothesis is formulated which would concern itself with each of the ten factors of PTO.

Ho: There is no significant difference in the morale status of schools with regard to PTO factor.

To test this hypothesis, the Chi-square test was employed for which the relevant data were extracted from table 5.9 and presented in table 5.10 as a sequence of testing the ten sub-hypotheses under the common hypothesis generated above.

The conventional levels of significance accepted were .05 and .01 levels for the rejection of the null hypotheses, the critical $X^2$ value at 2 df being 5.99 and 9.21 respectively.
Table 5.10

$X^2$ - VALUES OF PTO FACTORS OF TEACHER MORALE OF 40 SCHOOLS OF E.R. OF THAILAND

<table>
<thead>
<tr>
<th>PTO Factor</th>
<th>Frequency of observed status</th>
<th>$X^2$ Value</th>
<th>p</th>
<th>Remarks</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>High</td>
<td>Ave-</td>
<td>Low</td>
<td></td>
</tr>
<tr>
<td>F1 - Teacher Rapport with principals</td>
<td>20</td>
<td>11</td>
<td>9</td>
<td>5.15</td>
</tr>
<tr>
<td>F2 - Satisfaction with teaching</td>
<td>20</td>
<td>-</td>
<td>20</td>
<td>6.68</td>
</tr>
<tr>
<td>F3 - Rapport among teachers</td>
<td>20</td>
<td>-</td>
<td>20</td>
<td>6.68</td>
</tr>
<tr>
<td>F4 - Teacher salary</td>
<td>31</td>
<td>9</td>
<td>-</td>
<td>24.83</td>
</tr>
<tr>
<td>F5 - Teacher Load</td>
<td>11</td>
<td>20</td>
<td>9</td>
<td>5.15</td>
</tr>
<tr>
<td>F6 - Curriculum issues</td>
<td>10</td>
<td>30</td>
<td>-</td>
<td>24.68</td>
</tr>
<tr>
<td>F7 - Teacher Status</td>
<td>10</td>
<td>9</td>
<td>21</td>
<td>6.65</td>
</tr>
<tr>
<td>F8 - Community support of Edu.</td>
<td>21</td>
<td>-</td>
<td>19</td>
<td>6.82</td>
</tr>
<tr>
<td>F9 - School facilities and services</td>
<td>10</td>
<td>11</td>
<td>19</td>
<td>3.65</td>
</tr>
<tr>
<td>F10 - Community Pressures</td>
<td>10</td>
<td>10</td>
<td>20</td>
<td>5.00</td>
</tr>
</tbody>
</table>

Referring to the table 5.10, out of 10 factor hypotheses, 4 hypotheses were rejected at .05 levels, and 2 rejected at .001 level. The remaining four hypotheses can be rejected at the levels shown against them but in
educational research, the conventional levels are .05 and .01 and higher up. Hence they were not rejected.

5.8.2 Results and Discussion

1. So far as Factor - 1 which is Teacher Rapport with Principal was concerned, the $X^2$ value 5.15 is not significant. Hence the hypothesis that there was no significant difference on Factor-1 for morale status was not rejected. It was concluded that the Teacher Rapport with Principal was identical in all the schools under investigation. This is because of the 20 schools in high status group and 11 in average state group. Only 9 schools represented low morale on this factor.

2. Factor-2 relates to satisfaction with teaching. The $X^2$ value 6.68 is greater than 5.99 at .05 level. Hence the hypothesis stands rejected and it was concluded that the teachers of different schools were not identically satisfied with the teaching affairs. This is the crucial factor so far as the work of educational institution is concerned.

3. Factor-3 concerns itself with the interactions among teachers. The $X^2$ value 6.68 is significantly more than the critical value. Hence the hypothesis was rejected at .05 level. It was concluded that the
rapport amongst teachers was not healthy. This unhealthy rapport is indicative of low level of group decisions and the resultant school activities at smooth level is being threatened. 20 out of 40 schools revealed low status on this factor.

4. Factor-4 is concerned with the teacher salary. The $X^2$ value is 24.83 which is highly significant at .001 level. Hence the null hypothesis was rejected, and it was concluded that on the salary problem, the majority of the teachers had shown high morale. This investigation reveals the attitude of teachers on salary system of secondary schools in Thailand. The teachers of 31 schools had shown full satisfaction with the existing state of affairs regarding their salary. The financial needs of the teachers were fully met.

5. Factor-5 is again a crucial factor which is concerned with the teacher's load in a school. The $X^2$ value is 5.15 which is not significant at .05 level. Hence the hypothesis was accepted and it was concluded that the teachers showed no disagreement regarding teacher load. Looking into the number of schools, it is observed that teachers of 20 schools showed average morale status. This means such school teachers stand on the boundary line. They can shift their response
to either side of the teacher morale affecting the whole environment. Hence this factor under investigation is a "fluid factor".

6. Factor 6 relates itself with curriculum issues. The $X^2$ value is 21.68 which is highly significant at .001 level. Hence the null hypothesis was rejected and it was concluded that on curriculum issues, the teachers showed more than average morale status. The teachers of 30 schools showed average level of morale. The good sign about this factor was that none of the school teacher had shown the low level of morale.

7. Factor 7 is highly inflamable factor which deals with 'teacher status'. The $X^2$ value being 6.65 which is significantly more than the critical value at .05 level allows the investigator to reject the null hypothesis. Hence it was concluded that teachers of 21 schools were in no mood to agree with those of other schools regarding the problem of their professional status. This is not the situation only of Thailand teachers. This problem is global in its scope. The researches in other countries also corroborated this finding.

8. Factor 8 concerns itself with community support of education. The $X^2$ value is 6.82 which is significant
at .05 level. Hence the null hypothesis was rejected and it was concluded that teachers of schools did not have same opinion regarding this factor. Education is considered to be a social activity and school is a community centre. If this is taken at face value, many teachers (i.e. of 19 schools) showed low level of morale on this crucial factors.

9. Factor-9 concerns with what the schools are for. The $X^2$ value is 3.65 which is not significant. Hence the null hypothesis was accepted. Looking into the number of schools which showed low level, one is astonished. 19 schools out of 40 showed low level of teacher morale and 11 showed average level of morale. So far as evidence stands it could be predicted that this factor is a crucial and fluid factor which must be attended to in right earnest.

10 Factor-10 deals with community pressures on schools. The $X^2$ value is 5.00 which is not significant at .05 level. Hence the null hypothesis was accepted and it was concluded that the teachers of the secondary schools showed no difference in opinion on this factor. Looking into the greater frequency of 20 on low level category of teacher morale, it could be said that state of affairs is not healthy.
5.8.3 PTO Factor Sequence

Having studied and tested the PTO factor hypotheses, it is pertinent to know the strength of each of the factors with relation to teacher morale. This can be ascertained by means of non-parenthetic correlation $C$ given by the formula (Sieged, 1956, p. 198).

$$C = \sqrt{\frac{2}{X}}$$  
Where $N = 40$

$$\frac{N + X^2}{X}$$

Applying the above formula, to the values of ten Chi-square of different factors, the following ranks of the PTO emerges in ascending order presented in table 5.11.

contd.
Table 5.11

<table>
<thead>
<tr>
<th>Factor sequence</th>
<th>Name of the Factor</th>
<th>Original Factor No.</th>
<th>Original $\chi^2$ Value</th>
<th>Remarks</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>School facilities and services</td>
<td>F9</td>
<td>3.65 .29</td>
<td></td>
</tr>
<tr>
<td>2</td>
<td>Community Pressures</td>
<td>F10</td>
<td>5.00 .33</td>
<td></td>
</tr>
<tr>
<td>3.5</td>
<td>Teacher Rapport with principal</td>
<td>F1</td>
<td>5.15 .34</td>
<td>Cluster-1</td>
</tr>
<tr>
<td>3.5</td>
<td>Teacher load</td>
<td>F5</td>
<td>5.15 .34</td>
<td></td>
</tr>
<tr>
<td>5</td>
<td>Teacher Status</td>
<td>F7</td>
<td>6.65 .377</td>
<td></td>
</tr>
<tr>
<td>6.5</td>
<td>Satisfaction with teaching</td>
<td>F2</td>
<td>6.68 .378</td>
<td>Cluster-2</td>
</tr>
<tr>
<td>6.5</td>
<td>Rapport among teacher</td>
<td>F3</td>
<td>6.68 .378</td>
<td></td>
</tr>
<tr>
<td>8</td>
<td>Community support of Education</td>
<td>F8</td>
<td>6.82 .381</td>
<td></td>
</tr>
<tr>
<td>9</td>
<td>Curriculum issues</td>
<td>F6</td>
<td>21.68 .59</td>
<td>Cluster-3</td>
</tr>
<tr>
<td>10</td>
<td>Teacher Salary</td>
<td>F4</td>
<td>24.83 .64</td>
<td></td>
</tr>
</tbody>
</table>

The following observations are presented on the PTO factors as applied to teachers of secondary schools of the E.R. of Thailand. The tables 5.11 and 5.10 should be consulted simultaneously.

1. The PTO factors on which no discrepancy of opinions regarding teacher morale perceived by teachers are
F9, F10, F1 and F5. These factors form a group which may be designated as "Balancing Cluster".

2. The P.T.O factors on which significant discrepancy of opinions at .05 level regarding teacher morale are F7, F2, F3 and F8. These factors form a group which may be designated as "Clique-making Cluster". The teachers can be grouped in two cliques on the issues relating to the factors concerned. One clique-group was perceiving higher morale than the other group perceiving low morale.

3. The P.T.O factors which create highly significant discrepancy of opinions at .001 level regarding teacher morale are F6 and F4 which may be designated as "Conflict-creating Cluster". On F4 (Teacher salary) there was a positively high morale while F6 (curriculum issues) the indifference on the part of teachers was noticed.

5.9 Leadership Behaviour and Teacher Morale

Upto this point, identification of leadership behaviour and teacher morale have been discussed. Many hypotheses culminating into studies of various nature have been discussed. Now the major point regarding the relationship between the leadership behaviour of the principals and the teacher morale as perceived by the teachers serving under different principals
remains to be studied. For this various research questions have been asked to the study under para 4.7 and appropriate hypotheses have also been generated in para 4.7.1 in chapter 4.

5.10 Research Design: Independent and Dependent Variables

Having clarified the concepts and identifications of leadership behaviour and teacher morale as perceived by teachers, the next step would be to arrange data pertaining to teacher morale as perceived by themselves with the perception of leader behaviour by teachers serving under the principals.

In para 5.4 and 5.4.1 quadrant scheme has been enunciated and each one of the 40 principals of 40 schools has been allotted to one of the four quadrants.

The teachers serving in the schools under the principals were also be allotted to one of the four groups of the quadrant representing the principals of the schools.

The quadrants reflecting the patterns of leadership behaviour as perceived by teachers were considered as four levels of the experimental variable known as leadership behaviour.
The teacher-morale score as perceived by teachers themselves under each quadrant would be the dependent variable split-up in ten PTO factors.

The mean scores and the standard deviations of each PTO factors under each quadrant have been presented in table 5.8 of this chapter, and 10 x 4 factorial design was invoked. Out of 889 respondents, 540 respondents were randomly selected so that each quadrant of leadership behaviour had 140 teachers. This was done for the express purpose of achieving high precision and accuracy in the analysis of variance. (Cochran and Cox, 1962). Both the independent and dependent variables have fixed levels operating at 4 and 2 levels respectively. In order to analyse the means of 40 cells of two factors, the whole data were run on ERL computer for analysis of variance of a fixed-type model.

Before embarking for ANOVA, a homogeneity of variance test was completed.

5.10.1 Homogeneity of Variance Test

For testing the homogeneity of variance, Hartley's Fmax statistics was calculated by using the following formula; the data being taken from table 5.8.
The non significant Fmax value paved the way for embarking upon analysis of variance (ANOVA) the summary of which is presented in table 5.12.

Table 5.12
ANOVA SUMMARY OF TEACHER MORALE SCORES OF TEACHERS (N=560) OF 40 SCHOOLS

<table>
<thead>
<tr>
<th>Source</th>
<th>df</th>
<th>SS</th>
<th>MS</th>
<th>F</th>
<th>p</th>
</tr>
</thead>
<tbody>
<tr>
<td>Between Quadrants</td>
<td>3</td>
<td>4034.22</td>
<td>1344.74</td>
<td>73.082</td>
<td>.001</td>
</tr>
<tr>
<td>Between PTO Factors</td>
<td>9</td>
<td>75435.77</td>
<td>8381.75</td>
<td>455.532</td>
<td>.001</td>
</tr>
<tr>
<td>Interaction</td>
<td>27</td>
<td>12315.67</td>
<td>456.14</td>
<td>24.79</td>
<td>.001</td>
</tr>
<tr>
<td>Errors</td>
<td>520</td>
<td>9568.27</td>
<td>18.4</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Total</td>
<td>559</td>
<td>101353.93</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

The first F ratio (between quadrants) is 73.082 which is significant at .001 level of confidence with 3 and 520 degrees of freedom. It indicates that there exists significant relationship between the teacher morale and the leadership behaviour patterns viz., HH, HL, LH and LL patterns.

The second F ratio (between PTO factor) is 455.532 which is found significant at .001 level of confidence with 9 and 520 degrees of freedom. This means that there is a close
relationship between the morale scores and the factors of teacher morale viz., teacher rapport with the principal, satisfaction with teaching, rapport among teachers, teacher salary, teacher load, curriculum issues, teacher status, community support of education, school facilities and services and community pressures.

The third F ratio (interaction) is 24.79 which is found to be significant at .01 level of confidence with 27 and 520 degrees of freedom. It means that there is a mutual relationship between leadership behaviour pattern variable and teacher morale variable.

On the basis of the results presented in the table 5.12 it was decided to study the relationship of the ten factors of teacher morale. The morale scores of each of the factors were classified into four leadership behaviour patterns and analysis of variance was calculated. The results of each of the factors have been indicated in ANOVA tables one by one.

5.10.1.2 Leadership Behaviour Vis-a-Vis:

Study-5 : Teacher Rapport with the Principal ($F_1$)

Teacher rapport with principal deals with the teacher feeling about the principal, his professional competency, his interests in teachers and their work, his ability to
communicate and his skill in human relations. The morale scores of this factor classified into four leadership behaviour patterns have been shown in Table 5.13. Necessary data are taken from Table 5.8.

### Table 5.13

<table>
<thead>
<tr>
<th>Source of variance</th>
<th>SS</th>
<th>df</th>
<th>MS</th>
<th>F</th>
</tr>
</thead>
<tbody>
<tr>
<td>Between groups</td>
<td>6577.598</td>
<td>3</td>
<td>2192.53</td>
<td>43.26**</td>
</tr>
<tr>
<td>Within groups</td>
<td>2635.36</td>
<td>556</td>
<td>50.68</td>
<td></td>
</tr>
<tr>
<td>Total</td>
<td>9212.96</td>
<td>559</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

** Significant at .01 level

It can be observed from the table that the morale scores on the factor, "teacher rapport with the principal" classified into four leadership behaviour patterns show significant relationship. The F ratio 43.26 is found significant beyond .01 level with 3 and 556 degrees of freedom.

Since F value for the factor "teacher rapport with the principal" on the leadership behaviour has been found significant, it was subjected to interfactor comparison for knowing whether the actual difference lies among the four leadership behaviour dimensions. The means and SDs are taken from Table 5.8.
Table 5.14

<table>
<thead>
<tr>
<th></th>
<th>( \bar{X} )</th>
<th>SD</th>
<th>N</th>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>HH</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>1</td>
<td>62.4</td>
<td>6.71</td>
<td>140</td>
<td>5.66**</td>
<td>5.74**</td>
<td>10.4**</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>(3.96)</td>
<td>(4.25)</td>
<td>(10.72)</td>
<td></td>
</tr>
<tr>
<td>2</td>
<td>58.44</td>
<td>4.82</td>
<td>140</td>
<td>.46</td>
<td>7.12**</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>(.29)</td>
<td>(6.76)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>3</td>
<td>58.15</td>
<td>5.68</td>
<td>140</td>
<td>6.6**</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>(6.47)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>4</td>
<td>51.68</td>
<td>10.11</td>
<td>140</td>
<td><strong>Significant at .01 level</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Key: 1 = HH Pattern  Mean difference is shown in parenthesis. For significance, 2 = HL Pattern  t.05 = 1.97; t.01 = 2.35 3 = LH Pattern  4 = LL Pattern  ** Significant at .01 level

The table 5.14 has been prepared to examine significance of the mean difference.

It is evident from the table 5.14 that the highest mean score (62.4 with SD 6.71) of the group falls in the HH pattern, while the lowest mean score (51.68 with SD 10.11) of the group belongs to the LL pattern.

The results of mean difference and t-ratios can be interpreted as follows:
1. The difference between the mean morale scores of secondary teachers on school having HH pattern and HL pattern is 3.96 which is in favour of the HH pattern and t-ratio is 5.66 which is significant at .01 level. From this it can be considered that the teachers in secondary schools where the principals favour to exhibit HH pattern of leadership behaviour have more 'rapport with the principal' than that of the teachers in secondary schools where the principals exhibit HL pattern.

2. The difference between the mean morale scores of secondary teachers on HH pattern and LH pattern is 4.25 which is in favour of HH pattern and the obtained t-ratio is 5.74 which is found to be significant at .01 level. It means that the teachers in secondary schools where the principals favour to exhibit the HH pattern of leadership behaviour have more 'rapport with the principal' than that of the teachers in secondary schools where the principals exhibit the LH pattern.

3. The difference between the mean morale scores of secondary teachers on HH pattern and LL pattern is 10.72 which is in favour of HH pattern and the obtained t-ratio is 10.4 which is found to be significant at .01 level. It means that the teachers in secondary schools where the principals favour to exhibit the HH pattern of leadership behaviour have more 'rapport with the principal' than
that of the teachers in secondary schools where the principals exhibit the LL pattern.

4. The difference between the mean morale scores of secondary teachers on the HL pattern and the LL pattern is 6.76 which is in favour of the HL pattern and the obtained t-ratio is 7.12 which is found to be significant at .01 level. It means that the teachers in secondary schools where the principals favour to exhibit the HL pattern of leadership behaviour have more 'rapport with the principal' than that of the teachers in secondary schools where the principals exhibit the LL pattern.

5. The difference between the mean morale scores of secondary schools on the LH pattern and the LL pattern is 6.47 which is in favour of the LH pattern and the obtained t-ratio is 6.6 which is found to be significant at .01 level. It can be concluded that the teachers in secondary schools where the principals favour to exhibit the LH pattern of leadership behaviour have more 'rapport with the principal' than that of the teachers in secondary schools where the principals exhibit the LL pattern.

It can be concluded that; there exist greater rapport between the teachers in secondary school and the principal with the HH pattern than that in the secondary schools having the
HL, LH and LL pattern.

5.10.1.3 **Study-6 : Satisfaction with Teaching - F<sub>2</sub>**

"Satisfaction with teaching" pertains to teacher's relationship with students and feeling of satisfaction with teaching. The morale scores on this factor classified into four leadership behaviour patterns have been presented in table 5.14 with a view to applying ANOVA to trace out the significant relationship among the groups of leadership behaviour dimensions.

<table>
<thead>
<tr>
<th>Sources of Variance</th>
<th>SS</th>
<th>df</th>
<th>MS</th>
<th>F</th>
</tr>
</thead>
<tbody>
<tr>
<td>Between groups</td>
<td>6437.05</td>
<td>3</td>
<td>2145.68</td>
<td>35.78**</td>
</tr>
<tr>
<td>Within groups</td>
<td>33342.67</td>
<td>556</td>
<td>59.97</td>
<td></td>
</tr>
<tr>
<td>Total</td>
<td>39779.72</td>
<td>559</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

** Significant at .01 level

The morale scores on satisfaction with teaching classified into four leadership behaviour dimensions presented in table 5.14, show marked significant relationship. The F ratio value is 35.78 which is significant beyond .01 level of confidence with 3 and 556 degrees of freedom. As the F ratio is significant, table 5.16 has been prepared to assess the significance of mean difference through computation of t-ratios.
for four leadership behaviour dimensions. The means and SD are taken from the table 5.11.

Table 5-16

<p>| | | | | | | | |</p>
<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>X</td>
<td>SD</td>
<td>N</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td></td>
</tr>
<tr>
<td>---</td>
<td>---</td>
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<td>---</td>
<td>---</td>
<td>---</td>
<td>---</td>
<td></td>
</tr>
<tr>
<td>1</td>
<td>57.22</td>
<td>4.77</td>
<td>140</td>
<td>4.07**</td>
<td>4.01**</td>
<td>10.69**</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>(2.89)</td>
<td>(3.93)</td>
<td>(6.84)</td>
<td></td>
</tr>
<tr>
<td>2</td>
<td>60.11</td>
<td>6.91</td>
<td>140</td>
<td>6.93**</td>
<td>12.64**</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>(5.82)</td>
<td>(9.73)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>3</td>
<td>54.29</td>
<td>7.21</td>
<td>140</td>
<td></td>
<td>4.95*</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>(3.91)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>4</td>
<td>50.38</td>
<td>5.89</td>
<td>140</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>560</td>
<td></td>
</tr>
</tbody>
</table>

Mean difference is shown in parenthesis
* Significant at .05 level  t .05 = 1.97
** Significant at .01 level  t .01 = 2.35

Key : 1 = HH Pattern
2 = HL Pattern
3 = LH Pattern
4 = LL Pattern

It is apparent from the table 5.16 that the highest mean score of the group is 60.11 with standard deviation at 6.91 belonging to the HL pattern of leadership behaviour while the lowest mean score is 50.38 with the standard deviation of 5.89 which belongs to the LL pattern of leadership behaviour.
On the strength of statistical values in the table 5.15 the interpretation have been made as follows:

1. The difference between the mean morale scores of teachers in secondary schools on the HH pattern and the HL pattern of leadership behaviour of the principals is 2.89 in favour of the HL pattern of leadership behaviour and the t-ratio is 4.07 indicating significant relationship at .05 level. It means that the factor "satisfaction with teaching" exists more in the secondary schools with the HH pattern than the HL pattern of leadership behaviour of the principals.

2. The difference between the mean morale scores of teachers in secondary schools on the HH pattern and the LH pattern of leadership behaviour of the principals is 2.93 in favour of the HH pattern and t-ratio is 4.01 indicating significant relationship at .01 level. It means that the factor "satisfaction with teaching" exists more in the secondary schools with the HH pattern than the LH pattern of leadership behaviour of the principals.

3. The difference between mean morale scores on the HH pattern and the LL pattern of leadership behaviour of the principals is 6.84 in favour of the HH pattern and t-ratio is 10.69 which is significant at .01 level. It can be confirmed that the "satisfaction with teaching" in
secondary schools having the HH pattern is more than that in the secondary schools having the LL pattern of leadership behaviour of the principals.

4. The difference between mean morale scores on the HL pattern and the LH pattern of leadership behaviour of the principals is 5.82 in favour of the HL pattern and t-ratio is 6.93 which is significant at .01 level. It can be concluded that the "satisfaction with teaching" in the secondary schools having the HL pattern is more than that in the secondary schools having the LH pattern of leadership behaviour of the principals.

5. The difference between mean morale scores on the HL pattern and the LL pattern of leadership behaviour and t-ratio is 12.64 which is significant at .01 level. It means that the "satisfaction with teaching" in the secondary school having HL pattern is more than that in the secondary schools having the LL pattern of leadership behaviour of the principals.

6. The difference between mean morale scores on the LH pattern and the LL pattern of leadership behaviour of the principals is 3.91 in favour of the LH pattern and t-ratio is 4.95 which is significant at .01 level. It can be confirmed that the "satisfaction with teaching" in the secondary schools having the LH pattern is more than
that in the secondary schools having the LL pattern of leadership behaviour of the principals.

It can be concluded that there is more satisfaction with teaching in the secondary schools having the HH pattern and the HL pattern than that with the LH and LL pattern of leadership behaviour of the principals.

5.10.1.4 Study-7: The Rapport among Teachers \( F_3 \)

This factor focuses on a teacher's relationship with others. The morale scores on "rapport among teachers" classified into four dimensions of leadership behaviour and the analyses of variance test was applied.

Table 5.17

\[ \text{(ANOVA IV)} \]

\text{THE MORALE SCORES ON "RAPPORT AMONG TEACHERS" (F3) CLASSIFIED INTO FOUR LEADERSHIP BEHAVIOUR DIMENSIONS} \\

<table>
<thead>
<tr>
<th>Source of Variance</th>
<th>SS</th>
<th>df</th>
<th>MS</th>
<th>F</th>
</tr>
</thead>
<tbody>
<tr>
<td>Between groups</td>
<td>7021.05</td>
<td>3</td>
<td>2340.35</td>
<td>24.02**</td>
</tr>
<tr>
<td>Within groups</td>
<td>54218.11</td>
<td>556</td>
<td>97.51</td>
<td></td>
</tr>
<tr>
<td>Total</td>
<td>61239.16</td>
<td>559</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

**. Significant at .01 level

The morale scores on the factor "rapport among teachers" classified into four dimensions of leadership behaviour show
marked significant relationship. The F ratio is 24.02 which is significant at .01 level of confidence with 3 and 556 degrees of freedom. Hence mean differences with t-values were computed as shown in table 5.18 to find out the significant of differences existing among certain group of leadership behaviour patterns. The means and SDs are taken from table 5.8.

Table 5.18

t-RATIO AND MEAN DIFFERENCE OF MORALE SCORES ON "RAPPORT AMONG THE TEACHERS" (F3) BETWEEN LEADERSHIP BEHAVIOUR DIMENSIONS

<table>
<thead>
<tr>
<th></th>
<th>( \bar{X} )</th>
<th>SD</th>
<th>N</th>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
</tr>
</thead>
<tbody>
<tr>
<td>HH</td>
<td>42</td>
<td>7.11</td>
<td>140</td>
<td>1.81</td>
<td></td>
<td>11.21**</td>
<td>1.79</td>
</tr>
<tr>
<td>HL</td>
<td>40.5</td>
<td>6.78</td>
<td>140</td>
<td>13.36**</td>
<td>.19</td>
<td></td>
<td></td>
</tr>
<tr>
<td>LH</td>
<td>51.19</td>
<td>6.61</td>
<td>140</td>
<td></td>
<td></td>
<td>14.65**</td>
<td></td>
</tr>
<tr>
<td>LL</td>
<td>40.64</td>
<td>5.47</td>
<td>140</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Mean difference is shown in parenthesis \( t .05 = 1.97 \)

** Significant at .01 level \( t .01 = 2.35 \)

Key: 1 = HH Pattern
2 = HL Pattern
3 = LH Pattern
4 = LL Pattern

From the table 5.18 it is evident that the highest mean score of the group 51.19 with the standard deviation 6.61 belongs to the secondary schools having the LH pattern while
the lowest mean score 40.5 with the standard deviation 6.78 belongs to the secondary schools having the HL pattern of leadership behaviour of the principals.

On the basis of the results in table 5.17, the interpretation can be made as follows:

1. The difference between mean morale scores of the teachers in secondary school on the HH pattern and the LH pattern of leadership behaviour of the principals is 9.19 in favour of the LH pattern and t-ratio is 11.21 which is significant at .01 level. It means that the "rapport among teachers" is more in the secondary schools where there is the LH pattern than that in the HH pattern of leadership behaviour of the principals.

2. The difference between mean morale scores of the teachers in secondary schools on the HL pattern and the LH pattern of leadership behaviour of the principals is 10.69 which is in favour to the LH pattern and t-ratio is 15.36 which is significant at .01 level. This means that the rapport among teachers is more in the secondary schools where there is the LH pattern than that in the HL pattern of leadership behaviour of the principals.

3. The difference between mean morale scores of the teachers in secondary schools on the LH pattern and the
LL pattern of leadership behaviour of the principals is 10.55 which is in favour of the LH pattern and t-ratio is 14.65 indicating significance at .01 level. The meaning is that the rapport among teachers in the secondary schools having the LH pattern is more than that in the secondary schools having the LL pattern of leadership behaviour of the principals.

In conclusion, it can be confirmed that there is more rapport among teachers in the secondary schools having the LH pattern than that the secondary schools having the HH pattern, HL and the LL pattern of leadership behaviour of the principals. Thus, it can be stated that the secondary schools having the HL pattern show lower rapport among teachers when compared with the rapport existing in the secondary schools where principals having other patterns of leadership behaviour.

5.10.1.5 Study-8: Teacher Salary F4

"Teacher salary" pertains to the teacher's feelings about salary and salary policies. The morale scores on "teacher salary" factor were classified into four leadership behaviour dimensions and the ANOVA was applied to trace out the significant difference among the groups of leadership behaviour of the principals. The ANOVA summary is given in table 5.19.
Table 5.19
ANOVA SUMMARY ON THE MORAL SCORES ON "TEACHER SALARY" F4 CLASSIFIED INTO FOUR LEADERSHIP BEHAVIOUR DIMENSIONS

<table>
<thead>
<tr>
<th>Sources of Variance</th>
<th>SS</th>
<th>df</th>
<th>MS</th>
<th>F</th>
</tr>
</thead>
<tbody>
<tr>
<td>Between groups</td>
<td>1197.79</td>
<td>3</td>
<td>399.26</td>
<td>5.58*</td>
</tr>
<tr>
<td>Within groups</td>
<td>39770.39</td>
<td>556</td>
<td>71.53</td>
<td></td>
</tr>
<tr>
<td>Total</td>
<td>40968.18</td>
<td>559</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

* Significant at .01 level

The morale scores on the factor "Teacher Salary" classified into four quadrants of leadership behaviour show significant relationship because of the F value which 5.58. This value is significant at .01 level. Hence to locate the significant mean difference between the morale scores under different quadrants, t-ratios have been worked out in table 5.20.

contd.
Table 5.20

<table>
<thead>
<tr>
<th></th>
<th>X</th>
<th>SD</th>
<th>N</th>
<th>1 (HH)</th>
<th>2 (HL)</th>
<th>3 (LH)</th>
<th>4 (LL)</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>27.48</td>
<td>7.04</td>
<td>140</td>
<td>1.51 (1.37)</td>
<td>1.63 (1.15)</td>
<td>5.73** (6.07)</td>
<td></td>
</tr>
<tr>
<td>2</td>
<td>26.11</td>
<td>8.11</td>
<td>140</td>
<td>1.23 (1.22)</td>
<td>4.23** (4.7)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>3</td>
<td>26.33</td>
<td>7.81</td>
<td>140</td>
<td>4.43** (4.92)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>4</td>
<td>21.41</td>
<td>9.38</td>
<td>140</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Mean difference is shown in parenthesis

** Significant at .01 level

$t_{.05} = 1.97$

$t_{.01} = 2.35$

Key: 1 = HH Pattern
2 = HL Pattern
3 = LH Pattern
4 = LL Pattern

The table 5.20 indicates that the highest mean score of the groups 27.48 with the standard deviation 7.04 belongs to the secondary schools having the HH pattern while the lowest mean score of the groups 21.41 with the standard deviation 9.38 belongs to the secondary schools having the LL pattern of leadership behaviour of the principals.
On the basis of the results in table 5.20 the interpretation can be made as follows:

1. The difference between mean morale scores on the HH pattern and the LL pattern of leadership behaviour of the principals is 6.07 which is in favour of the HH pattern and t-ratio is 5.73 which is significant at .01 level of confidence. The meaning is that the satisfaction on "teacher salary" enjoyed by the teachers in secondary schools is more in the secondary schools having the HH pattern than where there is the LL pattern of leadership behaviour of the principals.

2. The significance between mean morale scores on the HL pattern and the LL pattern of leadership behaviour of the principals is 4.7 which is in favour of the HL pattern and t-ratio is 4.23 which is significant at .01 level of confidence. The meaning is that the satisfaction on "teacher status" enjoyed by the teachers in secondary schools is more in the secondary schools having the HL pattern than where there is the LL pattern of leadership behaviour of the principals.

3. The difference between mean morale scores on the LH pattern and the LL pattern of leadership behaviour of the principals is 4.92 and the t-ratio is 4.43 which is significant at .01 level of confidence. The meaning is that the satisfaction on "teacher salary"
enjoyed by the teachers in secondary schools, having the LH pattern is more than where there is the LL pattern of leadership behaviour of the principals.

It can be concluded that the teachers in secondary schools having the HH pattern of leadership behaviour enjoy their teacher salary more than that in the secondary schools having the LL pattern of leadership behaviour of the principals.

5.10.1.6 Study-9: Teacher Load (p5)

"Teacher load" deals with such matters as record-keeping, clerical work, extra curricular load and keeping up-to-date professionally. The morale scores on "teacher load" factor were classified into four dimensions of leadership behaviour and the analysis of variance was applied to trace out the significant relationship among the groups of leadership behaviour dimensions.
Table 5.21

ANOVA SUMMARY FOR THE MORAL SCORES ON "TEACHER LOAD" (F5) CLASSIFIED INTO FOUR LEADERSHIP BEHAVIOUR DIMENSIONS

<table>
<thead>
<tr>
<th>Sources of Variance</th>
<th>SS</th>
<th>df</th>
<th>MS</th>
<th>F</th>
</tr>
</thead>
<tbody>
<tr>
<td>Between groups</td>
<td>138.05</td>
<td>3</td>
<td>46.02</td>
<td>1.686</td>
</tr>
<tr>
<td>Within groups</td>
<td>15175.51</td>
<td>556</td>
<td>27.29</td>
<td></td>
</tr>
<tr>
<td>Total</td>
<td>15313.56</td>
<td>559</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Not significant

From the table 5.21, the F ratio 1.686 is not found to be significant at any level. It means that the teacher load is not the crucial factor that has any impact upon the morale of secondary teachers in Eastern region of Thailand.

5.10.1.7 Study 10: Curriculum Issues (F6)

"Curriculum issues" solicits teachers reactions to the adequacy of the school programme in meeting student needs in providing for individual differences. The scores obtained in this factor classified into four dimensions of leadership behaviour and analysis of variance was applied to trace out the significant relationship among the groups of leadership behaviour patterns.
### Table 5.22

ANOVA SUMMARY FOR THE MORALE SCORES ON "CURRICULUM ISSUES" (F6) CLASSIFIED INTO FOUR LEADERSHIP BEHAVIOUR DIMENSIONS

<table>
<thead>
<tr>
<th>Sources of Variance</th>
<th>SS</th>
<th>df</th>
<th>MS</th>
<th>F</th>
</tr>
</thead>
<tbody>
<tr>
<td>Between groups</td>
<td>248.73</td>
<td>3</td>
<td>82.9</td>
<td>1.60</td>
</tr>
<tr>
<td>Within groups</td>
<td>25609.36</td>
<td>556</td>
<td>46.06</td>
<td></td>
</tr>
<tr>
<td>Total</td>
<td>25858.09</td>
<td>559</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Not significant

From the table 5.22, the F ratio 1.60 is not found to be significant at any level. It means that the curriculum issues are not the crucial factor that has any impact upon the morale of teachers in secondary schools in Eastern region of Thailand.

5.10.1.8 Study-11: Teacher Status (F7)

The "teacher status" refers to the feelings about the prestige, security and benefits afforded by teaching, and the teacher feels that he is an accepted member of the community. The morale scores of this factor classified into four leadership behaviour dimensions and analysis of variance was applied to trace out the significant relationship among the groups of leadership behaviour dimensions as shown in table 5.23.
The morale scores on "teacher status" factor classified into four dimensions of leadership behaviour from the table 5.23 show marked significant relationship. The $F$ ratio is 13.76 which is found to be significant at .01 level of confidence with 3 and 556 degrees of freedom.

Hence, the mean differences with t-values were computed to find out the significance of the difference existing among certain groups of leadership behaviour dimensions.
Table 5.24

<table>
<thead>
<tr>
<th></th>
<th>X</th>
<th>SD</th>
<th>N</th>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>18.00</td>
<td>7.32</td>
<td>140</td>
<td>1.83</td>
<td>3.12*</td>
<td>1.11</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>(1.57)</td>
<td>(2.89)</td>
<td>(1.12)</td>
<td></td>
</tr>
<tr>
<td>2</td>
<td>16.43</td>
<td>7.02</td>
<td>140</td>
<td>1.45</td>
<td>1.45</td>
<td>0.56</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>(1.32)</td>
<td>(1.45)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>3</td>
<td>15.11</td>
<td>8.22</td>
<td>140</td>
<td>1.67</td>
<td>1.67</td>
<td>1.77</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>(1.77)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>4</td>
<td>16.88</td>
<td>9.44</td>
<td>140</td>
<td>1.11</td>
<td>1.11</td>
<td>1.11</td>
<td>1.11</td>
</tr>
</tbody>
</table>

Mean difference is shown in parenthesis

\[ t_{.01} = 2.35 \] ** Significant at .05 level

Key: 1 = HH Pattern
2 = HL Pattern
3 = LH Pattern
4 = LL Pattern

It is observed from the table 5.24 that the only significant t-ratio is 3.12 which proves that the difference of morale scores between HH and LH patterns is significant at .01 level, the difference being 2.89 is in favour of HH pattern. It means that the factor "Teacher Status" exists more in HH pattern than the LH pattern of leadership behaviour of the principals.
Community support of education refers to the extent to which community understands and is willing to support the sound education programme. The scores of this factor classified into four dimensions of leadership behaviour and the analysis of variance was applied to trace out the significant relationship among the groups of leadership behaviour dimensions.

Table 5.25
ANOVA SUMMARY FOR THE MORALE SCORES ON "COMMUNITY SUPPORT OF EDUCATION" (F8) CLASSIFIED INTO FOUR LEADERSHIP BEHAVIOUR DIMENSIONS

<table>
<thead>
<tr>
<th>Sources of Variance</th>
<th>SS</th>
<th>df</th>
<th>MS</th>
<th>F</th>
</tr>
</thead>
<tbody>
<tr>
<td>Between groups</td>
<td>325.47</td>
<td>3</td>
<td>108.42</td>
<td>11.34**</td>
</tr>
<tr>
<td>Within groups</td>
<td>5319.18</td>
<td>556</td>
<td>9.57</td>
<td></td>
</tr>
<tr>
<td>Total</td>
<td>5644.65</td>
<td>559</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

** Significant at .01 level

The morale scores on "community support of education" classified into four dimensions of leadership behaviour of the principals show marked significant relationship. The F ratio is 11.34 which is significant at .01 level of confidence with 3 and 556 degrees of freedom.
Hence the mean difference with t-values was applied to find out the significance of difference existing among the certain groups of leadership behaviour dimensions as presented in table 5.26.

Table 5.26

<table>
<thead>
<tr>
<th></th>
<th>HH</th>
<th>HL</th>
<th>LH</th>
<th>LL</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>17.11</td>
<td>5.18</td>
<td>140</td>
<td>6.13**</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>(1.84)</td>
</tr>
<tr>
<td>2</td>
<td>15.27</td>
<td>4.00</td>
<td>140</td>
<td>3.22**</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>(1.74)</td>
</tr>
<tr>
<td>3</td>
<td>17.01</td>
<td>5.08</td>
<td>140</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>4</td>
<td>14.32</td>
<td>7.83</td>
<td>140</td>
<td></td>
</tr>
</tbody>
</table>

Mean difference is shown in parenthesis  
** Significant at .01 level  

Key: 1 = HH Pattern  
2 = HL Pattern  
3 = LH Pattern  
4 = LL Pattern  

From the table 5.26, it is evident that the highest mean score of the groups 17.11 with standard deviation 5.18 belongs to the secondary schools having the HE pattern.
while the lowest mean score of the groups 14.32 with standard deviation 7.83 belongs to the secondary schools having the LL pattern of leadership behaviour of the principals.

On the basis of the results in table 5.26, the interpretation can be made as follows:

1. The difference between mean morale scores of the teachers in secondary schools on the HH pattern and the HL pattern of leadership behaviour of the principals is 1.84 which is in favour of the HH pattern. The t-ratio is 6.13 which is significant at .01 level of confidence. This means that "the community support of education" given to the teachers in secondary schools is more in the secondary schools having the HH pattern than that in the secondary schools having the HL pattern of leadership behaviour of the principals.

2. The difference between mean morale scores of the teachers in secondary schools on the HH pattern and the LL pattern of leadership behaviour of the principals is 2.79 which is in favour of the HH pattern. The t-ratio is 3.53 which is significant at .01 level of confidence. This means that "the community support of education" given to the teachers in secondary schools is more in the secondary schools having the
HH pattern than that in the LL pattern of leadership behaviour of the principals.

3. The difference between mean morale scores on the HL pattern and the LH pattern of leadership behaviour of the principals is 1.74 which is in favour of the LH pattern. The t-ratio is 3.22 which is significant at .01 level of confidence. This means that the "community support of education" given to the teachers in secondary schools is more in the secondary schools having the LH pattern than that in the HL pattern of leadership behaviour of the principals.

4. The difference between mean morale scores on the LH pattern and the LL pattern of leadership behaviour of the principals is 2.69 which is in favour of the LH pattern. The t-ratio is 3.41 which is significant at .01 level of confidence. This means that the "community support of education" given to the teachers in secondary schools is more in the secondary schools having the LH pattern than that in the secondary schools having the LL pattern of leadership behaviour of the principals.

It can be concluded that, the teacher morale is high when:

* the community support of education is given more in the secondary schools having the HH pattern than that
in the HL, LH and LL pattern of leadership behaviour of the principals;

* the community support of education is given more in the secondary schools having the LH pattern than that in the secondary schools having the HL pattern of leadership behaviour of the principals.

Thus, it can be stated that the secondary schools having the LL pattern show lower support from the community when compared with the other types of leadership behaviour dimensions of the principals.

5.10.1.10 Study-13: School Facilities and Services (P9)

The factor school facilities and services "deals with the adequacy of facilities, supplies and equipment and the efficiency of the procedures for obtaining materials of services. The scores of this factor were classified into four dimensions of leadership behaviour and analysis of variance was applied to trace out the significant relationship among the groups of leadership behaviour dimensions."
Table 5.27

(A NOVA X)

THE MORAL SCORES ON "SCHOOL FACILITIES AND SERVICE"
(F9) CLASSIFIED INTO FOUR LEADERSHIP BEHAVIOUR DIMENSIONS

<table>
<thead>
<tr>
<th>Sources of Variance</th>
<th>SS</th>
<th>df</th>
<th>MS</th>
<th>F</th>
</tr>
</thead>
<tbody>
<tr>
<td>Between groups</td>
<td>480.78</td>
<td>3</td>
<td>160.26</td>
<td>39.28**</td>
</tr>
<tr>
<td>Within groups</td>
<td>2268.45</td>
<td>556</td>
<td>4.08</td>
<td></td>
</tr>
<tr>
<td>Total</td>
<td>2749.23</td>
<td>559</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

** Significant at .01 level

The morale scores on school facilities and services classified into four leadership behaviour patterns show marked significant relationship. The F-ratio is 39.28 which is significant at .01 level of confidence with 3 and 556 degrees of freedom.

Hence, the mean difference with t-values were applied to find out the significance of difference existing among certain groups of leadership behaviour dimensions. The data have been given in table 5.28.
Table 5.28

\[ \text{t-RATIO AND MEAN DIFFERENCE OF MORALE SCORES ON "SCHOOL FACILITIES" (F9) BETWEEN LEADERSHIP BEHAVIOUR DIMENSIONS} \]

<table>
<thead>
<tr>
<th></th>
<th>( \bar{X} )</th>
<th>SD</th>
<th>N</th>
<th>1 HH</th>
<th>2 HL</th>
<th>3 LH</th>
<th>4 LL</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>19.32</td>
<td>5.19</td>
<td>263</td>
<td>1.94</td>
<td>1.58</td>
<td>4.44**</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>(1.01)</td>
<td>(.87)</td>
<td>(4)</td>
<td></td>
</tr>
<tr>
<td>2</td>
<td>18.31</td>
<td>3.44</td>
<td>38</td>
<td></td>
<td>2.32*</td>
<td>2.31**</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>(1.14)</td>
<td>(1.99)</td>
<td></td>
</tr>
<tr>
<td>3</td>
<td>19.45</td>
<td>3.87</td>
<td>133</td>
<td></td>
<td></td>
<td></td>
<td>5.52**</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>(3.13)</td>
</tr>
<tr>
<td>4</td>
<td>16.32</td>
<td>9.51</td>
<td>306</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Mean difference is shown in parentheses  

\( t .05 = 1.97 \)  

** Significant at .01 level \( t .01 = 2.35 \)  

* Significant at .05 level

Key: 1 = HH Pattern  
2 = HL Pattern  
3 = LH Pattern  
4 = LL Pattern

The table 5.28 indicates that the highest mean scores of the group 19.32 with the standard deviation 5.19 belongs to the secondary schools having the HH pattern of leadership behaviour while the lowest mean score 16.32 with the standard deviation 9.51 belongs to the secondary schools having the LL pattern of leadership behaviour of the principals.
On the basis of the results in table 5.19, the interpretation can be made as follows:

1. The mean difference between mean morale scores of teachers in the secondary schools on the HH pattern and the LL pattern of leadership behaviour of the principals is 4 which is in favour of the HH pattern. The t-ratio is 4.4 which is found significant at .01 level of confidence. This means that the satisfaction with salary is more in the secondary schools having the HH pattern than that in the secondary schools having the LL pattern of leadership behaviour of the principals.

2. The mean difference between mean morale scores of teachers in the secondary schools on the HL pattern and the LL pattern of leadership behaviour of the principals is 1.99 which is in favour of the HH pattern and t-ratio is 2.31 indicating significant at .05 level of confidence. It means that the satisfaction with salary of the teachers in secondary schools having the HL pattern is more than the secondary schools having the LL pattern of leadership behaviour of the principals.

3. The mean difference of morale scores of teachers in secondary schools on the LH pattern and the LL pattern
of leadership behaviour of the principals is 3.13 which is in favour of the LH pattern and t-ratio is 3.52 which is found significant at .01 level. It means that the satisfaction with salary of teachers in secondary schools where principals having the LH pattern is more than that in the secondary school where there is the LL pattern of leadership behaviour of the principals.

4. The mean difference of morale scores of teachers in schools having HL and LH patterns of leadership behaviour of the principals is 1.14 which is in favour of LH pattern and the t-ratio is 2.32 which is significant at .05 level. It means that the satisfaction with this factor having the LH pattern is more than that of the schools having HL pattern of leadership behaviour.

It can be concluded that the satisfaction with school facilities for the teachers in secondary schools is more in the secondary schools where there is the LH pattern than what in the HL, and the HH pattern of leadership behaviour of the principals. The result on this factor is somewhat strange.
"Community pressure" - a factor gives special attention to community expectations with respect to the teachers' personal standard, his participation in outside school activities. The obtained scores of this factor classified into four leadership behaviour dimensions of the principal and analysis of variance was applied to trace out the significant relationship among the groups of leadership behaviour dimensions.

Table 5.29
(ANOVA XI)

THE MORALE SCORES ON "COMMUNITY PRESSURES"
CLASSIFIED INTO FOUR LEADERSHIP BEHAVIOUR DIMENSIONS

<table>
<thead>
<tr>
<th>Sources of Variance</th>
<th>SS</th>
<th>df</th>
<th>MS</th>
<th>F</th>
</tr>
</thead>
<tbody>
<tr>
<td>Between groups</td>
<td>371.85</td>
<td>3</td>
<td>123.95</td>
<td>5.50**</td>
</tr>
<tr>
<td>Within groups</td>
<td>12530.35</td>
<td>556</td>
<td>22.53</td>
<td></td>
</tr>
<tr>
<td>Total</td>
<td>12562.2</td>
<td>559</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

** Significant at .01 level

The morale scores on "community pressures" classified into four leadership behaviour dimensions show marked significant relationship. The F ratio is 5.50 which is found significant at .01 level of confidence with 3 and 556 degrees of freedom.
Hence, the mean difference with t-values were applied to find out the significance of difference existing among certain groups of leadership behaviour dimensions.

Table 5.30

<table>
<thead>
<tr>
<th></th>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>$\bar{x}$</strong></td>
<td>17.26</td>
<td>17.34</td>
<td>16.33</td>
<td>15.21</td>
</tr>
<tr>
<td><strong>SD</strong></td>
<td>6.41</td>
<td>4.78</td>
<td>5.39</td>
<td>9.89</td>
</tr>
<tr>
<td><strong>N</strong></td>
<td>140</td>
<td>140</td>
<td>140</td>
<td>140</td>
</tr>
<tr>
<td><strong>HH</strong></td>
<td>1.31 (1.08)</td>
<td>1.65 (1.01)</td>
<td>1.55 (1.12)</td>
<td></td>
</tr>
<tr>
<td><strong>HL</strong></td>
<td>2.07* (2.05)</td>
<td>4.02** (2.13)</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Mean difference is shown in parenthesis. $t_{05} = 1.97$

* Significant at .05 level $t_{01} = 2.35$

** Significant at .01 level

Key: 1 = HH Pattern
2 = HL Pattern
3 = LH Pattern
4 = LL Pattern

From the table 5.30, it is evident that the highest mean score of the groups 17.34 with the standard deviation 4.78 belongs to the secondary schools where the principals
having the HL pattern of leadership behaviour while the lowest mean score of the groups 15-21 with the standard deviation 9.89 belongs to the secondary schools having the LL pattern of leadership behaviour of the principals.

On the basis of the results in the table 5.29, the interpretation can be made as follows:

1. The difference between the mean morale scores on the HH pattern and the LL pattern of leadership behaviour is 2.05 which is in favour of the HH pattern. The t-ratio is 2.07 which is significant at .05 level. This means that the community pressures is felt more in the secondary schools having the HH pattern than where there is the LL pattern of leadership behaviour of the principals.

2. The difference between the mean morale scores on the HL pattern and the LL pattern of leadership behaviour is 2.13 which is in favour of the HL pattern. The t-ratio is 4.02 which is significant at .01 level. This means that the community pressures is felt more in the secondary schools having the HL pattern than where there is the LL pattern of leadership behaviour of the principals.

It can be concluded that the community pressures is felt more by the teachers in secondary schools having the
HL pattern than the HH, LH and LL pattern of leadership behaviour of the principals.

It can be observed from the study that there exists marked significant relationship between different factor constituents of morale of teachers and different types of leadership behaviour if the principals in the secondary schools in Eastern region of Thailand. Hence, the hypothesis 4 stated above has been supported.

5.11 Leadership Behaviour and Teacher Morale in Context of Certain Variables

5.11.1 Study-15: Leadership Behaviour and the Size of the School

To know whether there is any significant relationship existing between the size of the school and the leadership behaviour pattern, the following hypothesis is formulated and put to Chi-square test.

H0: There is no significant relationship between the size of the school and the leadership behaviour patterns of the principal.

In the present study, the number of students enrolled in the school has been considered as a criterion to distinguish
the size of the schools. Up to 1000 pupils, the school was considered small. From 1001 to 2000, the school was considered medium school. From 2001 and above enrollments was considered a large school. The following table gives data classified under leadership patterns. In the body of table the expected frequencies are written in parenthesis.

Table 5.31
LEADERSHIP BEHAVIOUR PATTERN AND SIZE OF THE SCHOOL

<table>
<thead>
<tr>
<th>Size of school</th>
<th>Leadership behaviour pattern</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>HH</td>
<td>EL</td>
</tr>
<tr>
<td>1 Small (upto 1000)</td>
<td>7</td>
<td>1</td>
</tr>
<tr>
<td></td>
<td>(2 )</td>
<td>(2.2)</td>
</tr>
<tr>
<td>2 Medium (1001 to 2000)</td>
<td>3</td>
<td>9</td>
</tr>
<tr>
<td></td>
<td>(6.25)</td>
<td>(6.88)</td>
</tr>
<tr>
<td>3 Large (2001 and above)</td>
<td>0</td>
<td>1</td>
</tr>
<tr>
<td></td>
<td>(1.93)</td>
<td>(1.58)</td>
</tr>
<tr>
<td>Total</td>
<td>10</td>
<td>11</td>
</tr>
</tbody>
</table>

df = 6  \( X^2 .01 = 16.81 \)

Observed \( X^2 = 19.29 \) significant at .01 level.

The observed chi-square is 19.29 which is significant at .01 level. Hence the hypothesis was rejected and it was concluded that there existed a significant relationship between the size of the school and the behaviour pattern of the principal.
The largest Chi-square value computed belongs to small school under HH pattern which is 12.5. The percentage of variance for small size and HH pattern is found to be 64.8. Hence it was further concluded that HH leadership pattern could be established in a school having small size.

The second largest Chi-square value computed belongs to large size school under LL pattern which is 2.89. The percentage variance for large size school and LL pattern is found to be 14.96. Hence it could be said that LL pattern of leadership behaviour could be established in a large school.

5.11.2 Study-16 : Size of the School and Teacher Morale

To know whether there is any significant relationship between the levels of teacher morale and the size of the school, the following hypothesis is formulated and put to Chi-square test.

Ho : There is no significant relationship existing between the teacher morale and the size of the school.

To test the above null hypothesis, the following data given in table 5.32 have been used for computing Chi-square value. The figures in the parenthesis indicate expected frequency (fe) in the table.
Table 5.32
SIZE OF THE SCHOOL AND TEACHER MORALE

<table>
<thead>
<tr>
<th>Size of School</th>
<th>Teacher Morale</th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>High</td>
<td>Average</td>
<td>Low</td>
</tr>
<tr>
<td>Small</td>
<td>7 (2)</td>
<td>1 (3.4)</td>
<td>-</td>
</tr>
<tr>
<td>Medium</td>
<td>13 (6.25)</td>
<td>10 (10.63)</td>
<td>25 (8.13)</td>
</tr>
<tr>
<td>Large</td>
<td>3 (1.75)</td>
<td>3 (2.98)</td>
<td>7 (2.28)</td>
</tr>
<tr>
<td>Total</td>
<td>23 (10)</td>
<td>17</td>
<td>13</td>
</tr>
</tbody>
</table>

\[ \text{df} = 4 \quad x^2 .01 = 13.28 \]
\[ x^2 = 18.59 \text{ Significant at } .01 \text{ level} \]

The observed Chi-square is 18.59 which is significant at .01 level. Hence the hypothesis was rejected and it was concluded that there existed a significant relationship between the size of the schools and the levels of teacher morale.

The largest Chi-square value computed belongs to small school under high morale which is 12.5. The percentage of variance responsible for high morale for this is 67.24.

The largest Chi-square value computed belongs to large school under low morale which is 0.23. The percentage of variance responsible for morale is 1.24.
5.12 Leadership Behaviour, Teacher's Sex and the Teacher Morale

As has been explained earlier, the principal's leadership behaviour influences the teacher morale. The pertinent point of inquiry was:

How does the leader behaviour influence the teacher morale when the sex of the teacher's is controlled?

In order to study the impact of leadership behaviour upon the teacher morale of different sex of the teachers, the factorial design of 2 x 4 dimensions was involved having the sex at two levels and leadership behaviour operating at four levels. The following data given in table 5.33 are extracted for 2 x 4 factorial design; each cell comprises of 20 observations of the total score on PTO.
Table 5.33
SUMS OF 10 PTO FACTOR MEANS AND VARIANCES FOR 2 x 4 FACTORIAL DESIGN

<table>
<thead>
<tr>
<th>Quadrants</th>
<th>I (HH)</th>
<th>II (LH)</th>
<th>III (LL)</th>
<th>IV (HL)</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>Male teachers</td>
<td>314 (352.04)</td>
<td>247 (225.21)</td>
<td>197 (117.81)</td>
<td>234 (220.24)</td>
<td>992</td>
</tr>
<tr>
<td>Female teachers</td>
<td>346 (441.84)</td>
<td>301 (394.89)</td>
<td>261 (102.09)</td>
<td>318 (339.36)</td>
<td>1226</td>
</tr>
<tr>
<td>Total</td>
<td>660</td>
<td>548</td>
<td>458</td>
<td>552</td>
<td>2218</td>
</tr>
</tbody>
</table>

Figures in parenthesis are variances.

The Fmax statistics for homogeneity of variance test is 4.33 which is non significant. Hence the above data were subjected to ANOVA, the summary data of analysis are given in table 5.34.

Table 5.34
ANOVA SUMMARY FOR SEX BY QUADRANTS

<table>
<thead>
<tr>
<th>Source</th>
<th>df</th>
<th>SS</th>
<th>MS</th>
<th>F</th>
<th>p</th>
</tr>
</thead>
<tbody>
<tr>
<td>Quadrant</td>
<td>3</td>
<td>204910</td>
<td>68303.33</td>
<td>236.57</td>
<td>.001</td>
</tr>
<tr>
<td>Sex</td>
<td>1</td>
<td>136980</td>
<td>136980.00</td>
<td>474.44</td>
<td>.001</td>
</tr>
<tr>
<td>Q x S</td>
<td>3</td>
<td>14030</td>
<td>4676.67</td>
<td>16.20</td>
<td>.01</td>
</tr>
<tr>
<td>Error var.</td>
<td>152</td>
<td>43885.6</td>
<td>288.72</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Total</td>
<td>159</td>
<td>399805.6</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
5.12.1 Study-17: Leadership Behaviour Vs Teacher Morale of Different Sex

Referring to the above ANOVA summary in table 5.34, it is noted that the different patterns of leadership behaviour as reflected in different quadrants have \( F \) ratio which is highly significant at .001 level. Hence the null hypothesis that the different leadership behaviour of the principals belonging to different quadrants has no differential influence in the total teacher morale score was rejected and it was concluded that different patterns of leadership behaviour did influence the teacher morale differentially. In order to locate the significance of the teacher morale, the conservation Newman-Keuls' test was given, the relevant data are given below in table 5.35. In the body of the table the difference between the scores are noted.
Table 5.5

SUMMARY OF EXACT DIFFERENCES BETWEEN PAIRS
OF SUMS OF DIFFERENT QUADRANTS

<table>
<thead>
<tr>
<th>Quadrants</th>
<th>III</th>
<th>II</th>
<th>IV</th>
<th>I</th>
</tr>
</thead>
<tbody>
<tr>
<td>LL</td>
<td>458</td>
<td>548</td>
<td>552</td>
<td>660</td>
</tr>
<tr>
<td>LR</td>
<td></td>
<td>90**</td>
<td>94**</td>
<td>202**</td>
</tr>
<tr>
<td>HL</td>
<td></td>
<td></td>
<td>4</td>
<td>112**</td>
</tr>
<tr>
<td>HH</td>
<td></td>
<td></td>
<td></td>
<td>108**</td>
</tr>
</tbody>
</table>

** Significant at .01 level

\[ S.E. = \sqrt{\frac{\text{Error var.}}{n}} = \sqrt{\frac{288.72}{40}} = 2.69 \]

The difference between the scores is divided by S.E. and the resulting N.K. values were evaluated by consulting table for N.K. critical values.

Conclusions

1. The principals under Quadrant I having high consideration and high initiating structure could elicit the maximum teacher morale score. Moreover the teacher morale under quadrant I is significantly more than those of under quadrant III, II and IV in the order specified at .01 level. That is, quadrant I (III,II,IV).

2. The principals under quadrant IV having high initiating structure and low consideration elicited significantly
more teacher morale than the principals under II, III quadrant. That is

\[(IV = II) > III\]

3. The principals under quadrant II having low initiating structure and high consideration elicited significantly more teacher morale than the principals under III quadrant. That is

\[II. > III\]

Looking to the above data and the conclusions derived therefrom, it is seen that those principals who have either high consideration or high initiating structure could elicit the favourable teacher morale. In the above three conclusions each of them contains either high consideration or high initiating structure dimension or both for significance. Hence the overall relationship is:

\[I > (IV = II) > III\]

5.12.2 Study-18 : Sex of the Teacher Vis-a-Vis Teacher Morale

In order to know whether the sex of the teacher affects the teacher morale, the following null hypothesis is formulated and put to F test.
Ho: There is no significant difference in the teacher morale scores of both the male and female teachers.

Referring to the ANOVA summary, it is noted that the different sex of the teachers has 474.44 F ratio which is significant at .001 level. Hence the null hypothesis that there is no significant difference in the teacher morale scores of male and female teachers was rejected and it was concluded that the females showed more scores than the males. In our example the mean of the male morale score is $992 \div 4 = 248$ while that of female is $1226 \div 4 = 306.5$. Clearly the morale scores of the women were significantly higher than those of the men.

5.12.3 Study-19: Leadership Behaviour x Sex Vis-a-Vis Teacher Morale

In order to know whether there is any interactive influence of the pattern of leadership behaviour and sex upon the morale the following null hypothesis was formulated and put to F test.

Ho: There is no significant difference in the teacher morale scores of the male and the female teachers serving under principals having different patterns of leadership behaviour.
Referring to ANOVA summary given in table 5.34 the F ratio for the interaction between quadrant x sex is 16.20 which is significant at .01 level. Hence the null hypothesis that there is no interaction was rejected and it was concluded that the sex of the teacher and pattern of the leadership behaviour elicited differential scores of teacher morale. To locate significance of pairs of means among quadrants, the N.K. sequential range test was employed to the sums of different quadrants and sex.

Table 5.36
SUMMARY OF EXACT DIFFERENCES BETWEEN PAIR OF SUMS OF DIFFERENT QUADRANTS BY SEX

<table>
<thead>
<tr>
<th>Quarters</th>
<th>III M</th>
<th>IV M</th>
<th>II M</th>
<th>III F</th>
<th>II F</th>
<th>I M</th>
<th>IV F</th>
<th>I F</th>
</tr>
</thead>
<tbody>
<tr>
<td>X</td>
<td>197</td>
<td>234</td>
<td>247</td>
<td>261</td>
<td>301</td>
<td>314</td>
<td>318</td>
<td>346</td>
</tr>
<tr>
<td>$X - x_j$</td>
<td>37</td>
<td>50**</td>
<td>64**</td>
<td>104**</td>
<td>117**</td>
<td>121**</td>
<td>143**</td>
<td></td>
</tr>
<tr>
<td></td>
<td>-</td>
<td>13*</td>
<td>27*</td>
<td>67**</td>
<td>80**</td>
<td>84**</td>
<td>112**</td>
<td></td>
</tr>
<tr>
<td></td>
<td>-</td>
<td>-</td>
<td>14**</td>
<td>54**</td>
<td>67**</td>
<td>71**</td>
<td>99**</td>
<td></td>
</tr>
<tr>
<td></td>
<td>-</td>
<td>-</td>
<td>40**</td>
<td>53**</td>
<td>57**</td>
<td>85**</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>-</td>
<td>-</td>
<td>13*</td>
<td>17*</td>
<td>45**</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>-</td>
<td>-</td>
<td>4</td>
<td>32**</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>-</td>
<td>-</td>
<td>28**</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

The females under I quadrant fetched the highest morale score while the males under III quadrant fetched the least...
score. The overall impact with the sex and quadrant is given by the following relationship:

IF > (IV F = IM) > IIF > III F > II M > IV M > III M

5.13 Leadership Behaviour and Teacher's age Vis-a-Vis Teacher Morale

Teacher morale may be a function of principal's leadership behaviour. The pertinent question asked in this inquiry was:

(a) How do the different patterns of leader behaviour influence the teacher morale when the age of the teacher is controlled?

In order to study the impact of leadership behaviour upon the teacher morale of several age categories of the teachers, the factorial design of 3 x 4 dimensions was invoked having age operating at three levels and leadership behaviour at four levels. The following schematic data are provided for 3 x 4 factorial design, the each cell comprises of twelve observations of the total score on PTO.
Table 5.37
SUMS OF PTO FACTOR MEANS AND VARIANCES

<table>
<thead>
<tr>
<th>Quadrants</th>
<th>I (HH)</th>
<th>II (LH)</th>
<th>III (LL)</th>
<th>IV (HL)</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>Age category</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>up to 25 years</td>
<td>1323</td>
<td>263</td>
<td>190</td>
<td>225</td>
<td>1001</td>
</tr>
<tr>
<td>(371.21)</td>
<td>(344.41)</td>
<td>(153.2)</td>
<td>(265.65)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>26-35 years</td>
<td>2254</td>
<td>213</td>
<td>166</td>
<td>168</td>
<td>801</td>
</tr>
<tr>
<td>(277.24)</td>
<td>(177.81)</td>
<td>(106.64)</td>
<td>(105.56)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>36+years</td>
<td>3349</td>
<td>327</td>
<td>263</td>
<td>291</td>
<td>1230</td>
</tr>
<tr>
<td>(451.09)</td>
<td>(409.01)</td>
<td>(181.81)</td>
<td>(374.69)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Total</td>
<td>926</td>
<td>803</td>
<td>619</td>
<td>684</td>
<td>3032</td>
</tr>
</tbody>
</table>

The Fmax statistics for Homogeneity of variance test is 3.87 which is non significant. Hence the above data were subjected to ANOVA. The ANOVA summary is given in the Table 5.38.

Table 5.38
ANOVA SUMMARY FOR AGE BY QUADRANTS (3 x 4)

<table>
<thead>
<tr>
<th>Source</th>
<th>df</th>
<th>SS</th>
<th>MSS</th>
<th>F</th>
<th>p</th>
</tr>
</thead>
<tbody>
<tr>
<td>Quadrants</td>
<td>3</td>
<td>183486.67</td>
<td>61162.22</td>
<td>205.23</td>
<td>.001</td>
</tr>
<tr>
<td>Age</td>
<td>2</td>
<td>230401.66</td>
<td>115200.83</td>
<td>386.57</td>
<td>.001</td>
</tr>
<tr>
<td>Q x A</td>
<td>6</td>
<td>11513.33</td>
<td>1918.89</td>
<td>6.44</td>
<td>.01</td>
</tr>
<tr>
<td>Error</td>
<td>132</td>
<td>39337.32</td>
<td>298.01</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Total</td>
<td>143</td>
<td>464738.98</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
5.13.1 Study-20: Leadership Behaviour Vis-a-Vis Teacher Morale by Age

Referring to the above ANOVA summary of table 5.38, it is noted that the F ratio for different patterns of leadership behaviour as reflected in different quadrants is 205.23 which is significant at .001 level. Hence the null hypothesis that the different leadership behaviour of the principals belonging to different quadrants has no difference in the total teacher morale score was rejected and it was concluded that differing leadership behaviour did influence the morale differentially. In order to determine the significance between the pairs of the morale score, the N.K. sequential range test was given, the relevant data of which are given in table 5.39 below:

Table 5.39
SUMMARY OF EXACT DIFFERENCES BETWEEN PAIRS OF SCORES OF DIFFERENT QUADRANTS SE= 2.88

<table>
<thead>
<tr>
<th>Quadrants</th>
<th>III LL</th>
<th>IV HL</th>
<th>II LH</th>
<th>I HH</th>
</tr>
</thead>
<tbody>
<tr>
<td>$\bar{x}$</td>
<td>619</td>
<td>684</td>
<td>803</td>
<td>926</td>
</tr>
<tr>
<td>$\bar{x} - \bar{x}_j$</td>
<td>-</td>
<td>65**</td>
<td>164**</td>
<td>307**</td>
</tr>
</tbody>
</table>

** Significant at .01 level
The differences given in the body of the table were given N.K. sequential Range Test for significance. The S.E. of means was calculated by applying the formula

\[ SE = \sqrt{\frac{\text{error var}}{n}} \]

Where \( n = 36 \) (each cell has 12 observations. Here 3 cells are involved)

\[ \sqrt{\frac{298.01}{36}} \]

\[ = 2.88 \]

Conclusions

1. The principals under quadrant I having high consideration and high initiating structure elicited the maximum teacher morale score. Moreover the score under quadrant I is significantly higher than those of under quadrant II, IV and III in the order specified at .01 level. That is,

   Quadrant I > (II, IV, III)

2. The principals under quadrant II having high consideration and low initiating structure elicited from their teachers significantly more score than the principals under IV and III. That is:

   II > (IV, IV)

3. The principals under quadrant IV having low consideration and high initiating structure could elicit from
their teachers significantly more score than the principals under III quadrant. That is,

\[ IV > III. \]

Looking to the above conclusions, it is seen that those principals who have either high consideration or high initiating structure score could elicit more morale score. In the above three conclusions, each of them contains high score of either consideration or initiating structure dimension. The overall relationship of the teacher morale with respect to the leadership behaviour is

\[ I > II > IV > III. \]

5.13.2 Study-21: Teacher's Age Vis-a-Vis Teacher Morale

In order to know whether the teacher's age influences the morale, the following null hypothesis is formulated and put to F test.

\[ H_0: \text{There is no significant difference between the morale scores of teachers differing in their ages.} \]

The three age-groups had been isolated from the overall data. Referring to the ANOVA summary table 5.38, it is noted that the age had $F=386.57$ which is significant at .001 level. Hence the null hypothesis was rejected and it was concluded that different age groups had differential moral scores.
In order to determine the significance between the pairs of scores, the N.K. sequential Range Test was given, the relevant data of which are given in Table 5.40 below:

Table 5.40

<table>
<thead>
<tr>
<th>Age groups</th>
<th>(Between 26-35)</th>
<th>(Upto 25)</th>
<th>(36+)</th>
</tr>
</thead>
<tbody>
<tr>
<td>X</td>
<td>801</td>
<td>1001</td>
<td>1230</td>
</tr>
<tr>
<td>X_i - X_j</td>
<td>-</td>
<td>200**</td>
<td>429**</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>229**</td>
</tr>
</tbody>
</table>

** Significant at .01 level

Conclusions

1. The teachers falling in the age group 36+ had significantly higher morale than the groups 1 (upto 25) and 2 (between 26-35). That is,

   Group 3 > 1 and 2

2. The teachers falling under 25 years of age had significantly higher morale than the group 1. That is, Group 1 > 2.

3. Age groups were found to differ significantly at the .01 level for the total PTO morale score. For the majority of teachers there was a gradual upward
progression in the level of morale with increasing age. The level of morale for 26-35 age category was lower than that for teachers 25 years or less, but beyond this point the morale gradually increased with age.

5.13.3 Study-22: Leadership Behaviour x Age Vis-a-Vis Teacher Morale

In order to know whether there is any interactive influence of the patterns of leadership behaviour and the various age categories of the teachers upon the morale, the following null hypothesis was formulated and put to F test.

Ho: There is no significant interaction between the teacher morale scores of the teachers under various age categories serving under principals having differential leadership behaviour.

Referring to ANOVA summary table 5.38, the F ratio for Q x A is 6.44 which is significant at .01 level. Hence the null hypothesis that there was no interaction was rejected and it was concluded that the age of the teacher and the pattern of leadership behaviour together interacted significantly. To locate the significance of pairs of scores among the cells of 3 x 4 factorial design, the N.K. Sequential Range Test was applied, the data of which are given in table 5.41.
Table 5.41
SUMMARY OF EXACT DIFFERENCES BETWEEN PAIRS OF SCORES OF DIFFERENT Q X A CELLS
S.E. = 5.46

<table>
<thead>
<tr>
<th></th>
<th>III</th>
<th>IV</th>
<th>III</th>
<th>II</th>
<th>IV</th>
<th>I</th>
<th>III</th>
<th>IV</th>
<th>I</th>
<th>II</th>
<th>IV</th>
<th>I</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>166</td>
<td>168</td>
<td>190</td>
<td>213</td>
<td>225</td>
<td>254</td>
<td>263</td>
<td>263</td>
<td>291</td>
<td>323</td>
<td>327</td>
<td>349</td>
</tr>
<tr>
<td>( \bar{X}_j - \bar{X}_j )</td>
<td>4</td>
<td>24*</td>
<td>27**</td>
<td>59**</td>
<td>88**</td>
<td>97**</td>
<td>97**</td>
<td>125**</td>
<td>157**</td>
<td>161**</td>
<td>183**</td>
<td></td>
</tr>
<tr>
<td></td>
<td>22*</td>
<td>45**</td>
<td>57**</td>
<td>86**</td>
<td>95**</td>
<td>95**</td>
<td>123**</td>
<td>155**</td>
<td>159**</td>
<td>161**</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>23*</td>
<td>35*</td>
<td>64*</td>
<td>73**</td>
<td>73**</td>
<td>101**</td>
<td>133**</td>
<td>137**</td>
<td>159**</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>12</td>
<td>41**</td>
<td>50**</td>
<td>78**</td>
<td>110**</td>
<td>114**</td>
<td>136**</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>29*</td>
<td>38**</td>
<td>38**</td>
<td>66**</td>
<td>98**</td>
<td>102**</td>
<td>124**</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>9*</td>
<td>9</td>
<td>37**</td>
<td>69**</td>
<td>73**</td>
<td>95**</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>0</td>
<td>28**</td>
<td>60**</td>
<td>64**</td>
<td>86**</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>28**</td>
<td>60**</td>
<td>64**</td>
<td>86**</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>32**</td>
<td>36**</td>
<td>58**</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>40</td>
<td>26*</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>22*</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

The overall relationship established is as follows:

\[
\frac{I}{3} \left\{ \left( \frac{II}{3} = \frac{1}{3} \right) > \frac{IV}{2} \left\{ \left( \frac{III}{3} = \frac{II}{3} = \frac{1}{3} \right) > \left( \frac{IV}{I} = \frac{II}{I} = \frac{1}{2} \right) \right\} > \left( \frac{II}{1} = \frac{III}{1} = \frac{1}{2} \right) \right\} > \left( \frac{IV}{2} = \frac{III}{2} \right)
\]
5.13.4 Trend Test and its Importance

In addition to the usual hypotheses concerning main and interaction effects, the investigator was also interested in the functional relationship (or trend) between the teacher morale and patterns of principals' leadership behaviour and the teacher's age serving under the principals. Thus trend analysis was performed on the main dimensions of quadrants of leadership behaviour and the age categories of the teachers.

But here the following problems arise:

The quadrants and the age categories are not equally spaced. Because of this, usual parametric trend test could not be applied to our data.

If the treatment levels can be ordered but cannot be scaled in terms of equal units of an underlying treatment dimension, a procedure developed by Page has a great deal of potential usefulness (Dayton, 1970). Page's L test is "non-parametric" in the sense that a measurement scale and distributional properties commonly assumed in parametric test are not assumed by Page. Thus Page's L-Test can be used with data which are only ranks.

A test of significance for Linear ranks or L-test was recently described by Page and used by Jessee and Heiman as
a means of testing the significance of treatments when given treatment is ranked in a like manner over several criteria and does not take into account the magnitude of differences. Since the means of the twelve groups of the two independent variables of quadrant and age favoured the formation of 3x4 factorial design, the means over the quadrants and age categories were tested by the test of significance.

5.13.4.1 Study 223: Trend Test: Leadership Behaviour and Teacher Morale

In order to know the trend of teacher morale score in a functional relation to leadership behaviour, the following question was posed:

What happens to the general trend of the morale scores of the teacher under different age categories as a function of leadership behaviour?

In order to answer the above question, the following directional hypothesis was formulated and put to the L-test.

Ho: There is a definite linear trend in the morale scores across the patterns of leadership behaviour and varying teacher's age categories.
Here the sums of the morale scores of the teachers were arranged according to the age categories across quadrants of leadership behaviour as shown in table 5.42.

The ranks to scores were given in the rows. Thus the scores of the four quadrants were ranked across for age categories and the statistics for L-test were calculated. The whole calculation is tabulated as under given in table 5.42.

Table 5.42

<table>
<thead>
<tr>
<th>Quadrants</th>
<th>III</th>
<th>IV</th>
<th>II</th>
<th>I</th>
</tr>
</thead>
<tbody>
<tr>
<td>Age categories</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>1 upto 25 years</td>
<td>190</td>
<td>225</td>
<td>263</td>
<td>323</td>
</tr>
<tr>
<td>1.2.3.4</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>2 26-35 years</td>
<td>166</td>
<td>168</td>
<td>213</td>
<td>254</td>
</tr>
<tr>
<td>1.2.3.4</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>3 36+ years</td>
<td>263</td>
<td>291</td>
<td>327</td>
<td>349</td>
</tr>
<tr>
<td>1.2.3.4</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Total Rank</td>
<td>3</td>
<td>6</td>
<td>9</td>
<td>12</td>
</tr>
<tr>
<td>Weighted Total</td>
<td>3</td>
<td>12</td>
<td>27</td>
<td>48</td>
</tr>
</tbody>
</table>

L = 90

\[ z = \frac{12L - \frac{5nk}{k^2} (K+1)^2}{k \sqrt{n(k^2-1) (k+1)}} \]

\[ = \frac{12(90) - \frac{3(2)(4)(4+1)^2}{4 \sqrt{3(4^2-1) (4+1)}}}{4 \sqrt{3(15) (5)}} \]

\[ = \frac{180}{60} = 3 \]
GRAPH - 2
TREND OF AGE

--- LEADER BEHAVIOUR ---
The z-value of 3 is highly significant at .01 level on a one-tailed test and it confirmed our prediction that principals with varying quadrants performed better in fetching morale score of teachers under them across the varying age categories.

The above interpretation is substantiated graphically for Graph G 2, the data given in Table 5.42 were employed.

5.14 Leadership Behaviour and Teacher's Salary Vis-a-Vis Teacher Morale

From time immemorial (Coins' are considered as dominant incentives irrespective of skilled or unskilled literate or illiterate persons in extracting work from them. Coming to our own problem, the pertinent point of investigation was the relationship between the teacher morale and their salary status. The question asked for this inquiry was:

How do the different patterns of leader behaviour of the principals influence the teacher morale when the salary of the teacher is controlled?

In order to study the impact of leadership behaviour of the principals upon the teacher morale of several salary status of the teachers serving under them, the factorial design of 3 x 4 dimensions was invoked having salary operating at three levels while leadership behaviour as usual four
levels. The following schematic data are provided for 3 x 4 factorial design, in which each cell comprises of thirteen observations of the total morale score on PTO.

Table 5.43
SUMS OF PTO FACTORS MEANS AND VARIANCES OF 3 x 4 FACTORIAL DESIGN (n=10)

<table>
<thead>
<tr>
<th>Quadrants</th>
<th>I</th>
<th>II</th>
<th>III</th>
<th>IV</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>HH</td>
<td>HL</td>
<td>LL</td>
<td>LH</td>
<td></td>
</tr>
<tr>
<td>Salary slubs</td>
<td>233</td>
<td>241</td>
<td>172</td>
<td>197</td>
<td>843</td>
</tr>
<tr>
<td>1</td>
<td>(202.41)</td>
<td>(197.09)</td>
<td>(158.36)</td>
<td>(120.41)</td>
<td></td>
</tr>
<tr>
<td>2</td>
<td>298</td>
<td>281</td>
<td>221</td>
<td>270</td>
<td>1070</td>
</tr>
<tr>
<td></td>
<td>(320.96)</td>
<td>(267.89)</td>
<td>(126.29)</td>
<td>(165.6)</td>
<td></td>
</tr>
<tr>
<td>3</td>
<td>339</td>
<td>338</td>
<td>280</td>
<td>328</td>
<td>1285</td>
</tr>
<tr>
<td></td>
<td>(308.09)</td>
<td>(323.16)</td>
<td>(228.6)</td>
<td>(285.16)</td>
<td></td>
</tr>
<tr>
<td>Total</td>
<td>870</td>
<td>860</td>
<td>673</td>
<td>795</td>
<td>3198</td>
</tr>
</tbody>
</table>

As usual the Fmax statistics for testing homogeneity of variance comes to 2.04 which is not significant at .01 level. Hence it was assumed that the spread of scores had equal variability. Therefore the data were subjected to ANOVA. The ANOVA summary is given in table 5.44.
Table 5.44

ANOVA SUMMARY FOR SALARY BY QUADRANTS (3 x 4)

<table>
<thead>
<tr>
<th>Source</th>
<th>df</th>
<th>SS</th>
<th>MSS</th>
<th>F</th>
<th>p</th>
</tr>
</thead>
<tbody>
<tr>
<td>Quadrants</td>
<td>3</td>
<td>82176.67</td>
<td>23392.22</td>
<td>105.5</td>
<td>.001</td>
</tr>
<tr>
<td>Salary</td>
<td>2</td>
<td>244265.00</td>
<td>122125.5</td>
<td>47.12</td>
<td>.001</td>
</tr>
<tr>
<td>Q x S</td>
<td>6</td>
<td>5068.33</td>
<td>844.72</td>
<td>3.25</td>
<td>.01</td>
</tr>
<tr>
<td>Error</td>
<td>144</td>
<td>37386.72</td>
<td>259.63</td>
<td>-</td>
<td></td>
</tr>
<tr>
<td></td>
<td>155</td>
<td>368896.72</td>
<td>-</td>
<td>-</td>
<td></td>
</tr>
</tbody>
</table>

5.14.1 Study-24 Leadership Behaviour Vis-à-Vis Teacher Morale

Referring to the above ANOVA summary table 5.44 it is noted that the F-ratio for different patterns of leadership behaviour as reflected in different quadrants is 105.5 which is significant at .001 level. Hence the null hypothesis that the different leadership behaviour of the principals belonging to different quadrants has no difference in the total teacher morale scores was rejected and it was concluded that different patterns of leadership behaviour did influence the teacher morale differentially. In order to determine the significance between the pairs of morale scores, the N.K. Sequential Range Test was employed, the relevant data of which are given in table 5.45 below:
The SE of difference was calculated as usual and it was 2.58. The difference of two scores was divided by 2.98 and the resulting F ratio, was consulted to the N.K. tables. The following conclusions were drawn:

1. The principals under Quadrant I having high initiating structure, high consideration, elicited the maximum teacher morale score. Moreover, the score under quadrant I is significantly higher than the scores under quadrants IV and III in the order specified at .01 level. Hence the following relationship is arrived at:

\[(I = II) > IV, > III\]

2. The principal under quadrant II having low initiating structure and high consideration elicited from their
teachers significantly more morale than the principals under quadrants IV and III. That is:

\[ II > IV, > III \]

3. The principals under quadrant IV having high initiating structure and low consideration could elicit from their teachers significantly more score than the principals under quadrant III. That is:

\[ IV > III \]

Looking to the above conclusions, it is seen that those principals who have either high consideration or high initiating structure could elicit more morale scores from the teachers serving under them. In the above three conclusions, each of them contains high score of either consideration or initiating structure or both the dimensions.

The overall relationship of the teacher morale with respect to the leadership behaviour is

\[ (I = II) > IV > III \]

5.14.2 Study-25: Teacher's Salary Vis-a-Vis Teacher Morale

In order to know whether teacher's salary had any influence upon their morale, the following null hypothesis is formulated and put to F test:
Ho: There is no significant difference between the morale scores of teachers belonging to different salary slabs.

The three salary slabs had been determined from the overall data of the teachers. Referring to the ANOVA summary table 5.44, it is noted that the salary has 47.12 as its F ratio which is significant at .001 level. Hence the null hypothesis was rejected and it was concluded that the teachers drawing differential salary had differential teachers morale. This means salary is potent factor in developing the teacher morale of any educational institution.

In order to locate the significance between the pairs of scores, the N.K. Sequential Range Test was given, the relevant data of which are given in table 5.46 below:
Table 3.4b

<table>
<thead>
<tr>
<th>Salary Slabs</th>
<th>1</th>
<th>2</th>
<th>3</th>
</tr>
</thead>
<tbody>
<tr>
<td>( \bar{x} )</td>
<td>0.843</td>
<td>1070</td>
<td>1285</td>
</tr>
<tr>
<td>( \bar{x} - \bar{x}_j )</td>
<td>-</td>
<td>227**</td>
<td>442**</td>
</tr>
</tbody>
</table>

** Significant at .01 level

The SE of difference is \( \sqrt{\frac{\text{Error-var}}{n}} = \sqrt{\frac{259.62}{52}} = 2.23 \) The resulting ratio with the exact difference was consulted for its critical value.

Conclusions

1. The teachers falling in the highest salary slab (3) had significantly higher morale scores than those of the teachers under 2 and 3 slabs. That is,
   \[ 3 > 1 \text{ and } 2 \]

2. The teachers falling in the second salary slab had significantly higher morale scores than those of the teachers under first salary slab. That is,
   \[ 2 > 1 \]

3. As might be expected, when teachers were grouped according to three salary levels, significant F-ratios at .01 level were obtained for the total score. In general,
there was a high correlation between salary slab and the level of morale.

5.14.3 Study-26: Trend Test: Teacher's Salary and Teacher Morale

In order to know the trend of the teacher morale score in a functional relationship to leadership behaviour, the following question was posed:

What happens to the general trend of the morale scores of the teacher falling under different salary slabs as a function of leadership behaviour?

To answer the above question, the following directional hypothesis was formulated and put to L-test.

H₀: There is a definite linear trend in the morale scores across the patterns of leadership behaviour and the three teacher's salary slabs.

Here the sums of the morale scores of the teachers were arranged according to the salary slabs across quadrants of leadership behaviour as shown in Table 5.4/.

The ranks to scores were given in the rows.
Thus the scores of the four quadrants were ranked across the salary slabs and the statistics for L-test were calculated. The whole calculation is tabulated and given in Table 5.47.

Table 5.47
TREND TEST FOR QUADRANTS AND MORALE SCORES IN RELATION TO SALARY SLABS

<table>
<thead>
<tr>
<th>Quadrants</th>
<th>III</th>
<th>IV</th>
<th>II</th>
<th>I</th>
</tr>
</thead>
<tbody>
<tr>
<td>Salary slab</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>1 Low</td>
<td>172</td>
<td>197</td>
<td>241</td>
<td>233</td>
</tr>
<tr>
<td>2 Medium</td>
<td>221</td>
<td>270</td>
<td>281</td>
<td>298</td>
</tr>
<tr>
<td>3 High</td>
<td>280</td>
<td>328</td>
<td>338</td>
<td>339</td>
</tr>
<tr>
<td>Total Rank</td>
<td>3</td>
<td>6</td>
<td>9</td>
<td>12</td>
</tr>
<tr>
<td>Weighted Total</td>
<td>3</td>
<td>12</td>
<td>27</td>
<td>48</td>
</tr>
</tbody>
</table>

\[ L = 90 \]

\[ X = \frac{12(0) - 3(3)(4)(25)}{4 / 3(15)(5)} = 3 \]

A one tail test has been used because we expected the improvement of teacher morale with increasing salary. The value of \( Z \) i.e. 3 was significant at .01 level on a one tail test and confirmed the prediction that teachers with increased salary would show greater teacher morale with respect to different patterns of leadership behaviour.
GRAPH - 3
TREND OF SALARY SLAB

LEADER BEHAVIOUR

High
Medium
Low

III | IV | II | I
LL | HL | LH | HH

--- LEADER BEHAVIOUR ---
The above interpretation is substantiated graphically. For graph G 3, the data given in table 5.47 were employed.

5.14.4 Study-27 : Leadership Behaviour x Teacher's Salary Vis-a-Vis Teacher Morale

In order to know whether there is any interaction effect of the four patterns of leadership behaviour and the three salary levels of the teacher upon the morale score, the following null hypothesis was formulated:

\[ H_0 : \text{There is no significant interaction between the teacher morale scores of the teacher's belonging three salary slabs and serving under principals having differential leadership behaviour.} \]

Referring to ANOVA summary table, the F ratio for Q x S is 3.25 which is significant at .01 level. Hence the null hypothesis that there was no significant interaction was rejected and it was concluded that the salary of the teacher and the pattern of the leadership behaviour of the principal together interacted significantly. To locate the occurrence of interaction, the total sums of squares for interaction 5068.33 is partitioned composed of 6 degrees of freedom. This SS. 5068.33 is partitioned into six components having a single degree of freedom. The partition of SS for interaction is as given in table 5.48 below:
Only 3 components of quadrant's x salary were found to be significant. They are:

1. The principals under quadrant I and II interacted with the salary slabs 1 and 2 giving F ratio 6.02 which is significant at .01 level.

2. The principals under quadrants III and IV interacted with the salary slabs 1 and 2 giving F ratio 5.55 which is significant at .01 level.

3. The principals under each quadrant interacted with each of the three salary slabs. Thus giving an indication that these two variables - Leadership behaviour and salary slabs - are not independently poised so far as
teacher morale is concerned. Secondly, the last interaction also indicates the constancy of the other two interaction mentioned earlier.

The significance of the above interactions can also be substantiated graphically. The lines of the graphs are never parallel with each other, which show the significance at higher level.

To locate the significance of pairs of scores among the cells of 3 x 4 factorial design the N.K* Sequential Range Test was applied, the data of which are given in table 5.49.
### Table 5.49
**SUMMARY OF EXACT DIFFERENCES BETWEEN PAIRS OF SCORES OF DIFFERENT OxS CELLS**

<table>
<thead>
<tr>
<th>GxS</th>
<th>III</th>
<th>IV</th>
<th>III</th>
<th>I</th>
<th>II</th>
<th>IV</th>
<th>III</th>
<th>II</th>
<th>I</th>
<th>IV</th>
<th>II</th>
<th>I</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>1</td>
<td>2</td>
<td>1</td>
<td>1</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>2</td>
<td>2</td>
<td>3</td>
<td>2</td>
<td>1</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th></th>
<th>1/2</th>
<th>197</th>
<th>221</th>
<th>233</th>
<th>241</th>
<th>270</th>
<th>280</th>
<th>281</th>
<th>298</th>
<th>328</th>
<th>338</th>
<th>339</th>
</tr>
</thead>
<tbody>
<tr>
<td>X-X</td>
<td></td>
<td>25**</td>
<td>49**</td>
<td>61**</td>
<td>69**</td>
<td>98**</td>
<td>108**</td>
<td>109**</td>
<td>126**</td>
<td>156**</td>
<td>166**</td>
<td>167**</td>
</tr>
<tr>
<td></td>
<td>-</td>
<td>24**</td>
<td>36**</td>
<td>44**</td>
<td>73**</td>
<td>83**</td>
<td>84**</td>
<td>101**</td>
<td>131**</td>
<td>141**</td>
<td>142**</td>
<td></td>
</tr>
<tr>
<td></td>
<td>-</td>
<td>12*</td>
<td>20**</td>
<td>49**</td>
<td>59**</td>
<td>60**</td>
<td>77**</td>
<td>107**</td>
<td>117**</td>
<td>118**</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>-</td>
<td>8</td>
<td>37**</td>
<td>47**</td>
<td>48**</td>
<td>65**</td>
<td>95**</td>
<td>105**</td>
<td>106**</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>-</td>
<td>29**</td>
<td>39**</td>
<td>40**</td>
<td>57**</td>
<td>87**</td>
<td>97**</td>
<td>98**</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>-</td>
<td>10</td>
<td>11</td>
<td>28**</td>
<td>58**</td>
<td>58**</td>
<td>68**</td>
<td>69**</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>-</td>
<td>1</td>
<td>11</td>
<td>48**</td>
<td>58**</td>
<td>59**</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>-</td>
<td>17**</td>
<td>41**</td>
<td>57**</td>
<td>58**</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>-</td>
<td>30**</td>
<td>40**</td>
<td>40**</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>XX &lt; 0.01</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>X &lt; 0.05</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

XX < 0.01
X < 0.05
The overall relationship is as under:
\[
\left\{ \begin{align*}
I(1) &= I(3) = IV(5) \\
II(2) &= III(2) \\
III(3) &= IV(2) = II(1)
\end{align*} \right.
\]

The high initiating structure, high consideration, (quadrant I) with salary slab 1 and low initiating structure, high consideration (quadrant II) with salary slab 3 contain the most significant morale scores and these scores are practically highly significant than all the rest scores of the cells.

The low initiating structure, low consideration, (quadrant III) with salary slab 1 contains the lowest morale scores.

The general interpretation is that both the negative signs of the quadrant elicit least scores of teacher morale while both the positive signs of the quadrant secured the highest morale scores.

5.15 Leadership Behaviour and Teacher Qualification Vis-a-Vis Teacher Morale

The morale of the personnel does not generate in vacuum. Many interactive variables play their role in the generation and development of the morale. The extent of satisfaction or dissatisfaction a person derives from working in the institution
depends to a large extent on the person's skill in handling the job situation, the later being dependent on the qualification of the person.

Returning to our problem, the crucial point of investigation was the relationship between the teacher morale and their qualifications. The question asked for this inquiry was:

How do the different patterns of leadership behaviour of the principals influence the teacher morale when the teacher's qualification is controlled?

In order to study the impact of leadership behaviour of the principals upon the teacher morale of the teachers holding differential qualifications serving under them, the factorial design of 2 x 4 dimensions was invoked having qualification operating at two levels while leadership behaviour at four levels as usual. The following schematic data in table 5.50 are provided for 2 x 4 factorial design in which each cell comprises of ten observations of the total morale score on PTO.
Table 5.50
SUMS OF PTO FACTOR MEANS AND VARIANCES
n=10

<table>
<thead>
<tr>
<th>Quadrants</th>
<th>++</th>
<th>+−</th>
<th>−−</th>
<th>−+</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>I</td>
<td>299</td>
<td>296</td>
<td>219</td>
<td>250</td>
<td>1064</td>
</tr>
<tr>
<td></td>
<td>(279.81)</td>
<td>(282.64)</td>
<td>(136.89)</td>
<td>(171.8)</td>
<td></td>
</tr>
<tr>
<td>II</td>
<td>311</td>
<td>311</td>
<td>264</td>
<td>299</td>
<td>1185</td>
</tr>
<tr>
<td></td>
<td>(264.01)</td>
<td>(206.69)</td>
<td>(143.84)</td>
<td>(195.89)</td>
<td></td>
</tr>
<tr>
<td>III</td>
<td>219</td>
<td>219</td>
<td>264</td>
<td>299</td>
<td>1185</td>
</tr>
<tr>
<td>IV</td>
<td>250</td>
<td>250</td>
<td>299</td>
<td>311</td>
<td>1185</td>
</tr>
<tr>
<td>Total</td>
<td>610</td>
<td>607</td>
<td>485</td>
<td>549</td>
<td></td>
</tr>
</tbody>
</table>

Qualifications
low 1 299 296 219 250 1064
(high 2 311 311 264 299 1185
Total 610 607 485 549

The Fmax statistics for testing homogeneity of variance comes to 2.06 which is not significant. Hence it was assumed that the variability of the scores was homogeneous. So the data were subjected to ANOVA. The ANOVA summary is presented in table 5.51 below:

Table 5.51
ANOVA SUMMARY FOR QUALIFICATION BY QUADRANTS (2x4)

<table>
<thead>
<tr>
<th>Source</th>
<th>df</th>
<th>SS</th>
<th>MSS</th>
<th>F</th>
<th>p</th>
</tr>
</thead>
<tbody>
<tr>
<td>Quadrants</td>
<td>5</td>
<td>53693.75</td>
<td>17897.92</td>
<td>76.63</td>
<td>.001</td>
</tr>
<tr>
<td>Qualification</td>
<td>1</td>
<td>18301.25</td>
<td>18301.25</td>
<td>78.36</td>
<td>.001</td>
</tr>
<tr>
<td>Interaction</td>
<td>3</td>
<td>1262.75</td>
<td>421.25</td>
<td>1.8</td>
<td>ns</td>
</tr>
<tr>
<td>Error</td>
<td>72</td>
<td>16815.7</td>
<td>233.55</td>
<td>-</td>
<td></td>
</tr>
<tr>
<td>Total</td>
<td>79</td>
<td>90074.45</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
5.15.1 Study-28 Leadership Behaviour Vis-a-Vis Teacher

Referring to the above table 5.51 it is noted that the F ratio for different patterns of leadership behaviour as reflected in different quadrant, is 76.63 which is significant at .001 level. Hence the null hypothesis that the different leadership behaviour styles of the principals belonging to different quadrants has no difference in the total teacher morale scores was rejected, and it was concluded that different patterns of leadership behaviour did influence the teacher morale differentially. In order to determine the significance between the pairs of morale scores, the N.K. Sequential Range Test was employed, the relevant data of which are given in table 5.52.

Table 5.52

| SUMMARY OF EXACT DIFFERENCES BETWEEN PAIRS OF MORALE SCORES DIFFERENT QUADRANTS |
|-----------------|-----|-----|-----|-----|
| Quadrants       | III | IV  | II  | I†  |
| \( \bar{X} \)    | 483 | 549 | 607 | 610 |
| \( \bar{X} = \bar{X} \) | -   | 66**| 124**| 127**|
| \( \bar{X} = \bar{X} \)     | -   | 56**| 61**| 3   |

** Significant at .01 level

The following conclusions are drawn:
1. The principals under quadrant I having high initiating structure, high consideration elicited the maximum morale scores. Moreover the score under quadrant I is significantly higher than the scores under quadrants IV and III in the order specified at .01 level. There is no difference between the scores of quadrants I and II. Hence the following relationship is established:

\[ I = II > II \& III \]

2. The principals under quadrant II having low initiating structure and high consideration elicited from their teachers significantly more morale scores than the principals under quadrants IV and III. That is,

\[ II > IV, > III \]

3. The principals under quadrant IV having high initiating structure and low consideration could elicit from their teachers significantly more score than the principals under quadrant III. That:

\[ IV > III \]

Looking to the above conclusions, it is seen that those principals who have either high consideration or high initiating structure could elicit more morale scores from the teachers serving under them. In the above three conclusions, each of them contains high score of either consideration or initiating
structure dimensions or both the dimensions. The overall relationship is:

\[(I = II) > IV > III\]

5.12.2 Study-29: Teacher’s Qualification Vis-a-Vis Teacher Morale

In order to know whether teacher’s qualification had any influence upon their morale, the following null hypothesis is formulated and put to F test:

\[H_0: \text{There is no significant difference between the morale scores of teachers belonging to different levels of qualifications.}\]

The two levels of the qualification have been decided from the overall data of the teachers. Those who were holding one of the Master’s degree were placed in the high level while those teachers holding only bachelor’s degree were placed in the low level. Under-graduates in the secondary schools were serving but their inadequate number precluded them from this study.

Referring to the ANOVA summary table 5.51 it is noted that the qualification has 78.36 as its F ratio which is significant at .01 level. Hence the null hypothesis was rejected and it was concluded that the teachers holding different qualifications had varying teacher morale. From
the sums of the total morale scores of the levels of qualification it can be seen that those who were holding high qualification had 1185 scores \( (X = 296.25) \) as against those teachers holding low qualification \( (X = 266) \).

5.15.3 Study-30: Leadership Behaviour x Teacher's Qualification Vis-a-Vis Teacher Morale

In order to know whether there is any interaction between leadership behaviour and teacher's qualification upon the teacher morale score, the following null hypothesis is formulated and put to F test.

Ho: There is no significant interaction between the teacher morale scores of the teachers belonging to high and low levels of qualifications and serving under principals having differential leadership behaviour.

Referring to ANOVA summary table 5.51, the F ratio for the said unrelation is 1.8 which is not significant at conventional levels. Hence the null hypothesis was accepted and it was concluded that the teacher's qualification was an independent variable having no concern with the differential pattern of leadership behaviour.
5.16 Results and Discussion

This study focused on the possible relationship that might develop between the manner in which a teacher perceives his principal's leadership behaviour and teacher morale. Five hundred and sixty in-service teachers of forty secondary schools, responded to two instruments. The first (LBDQ) asked them to describe their principal's behaviour as they actually perceived in terms of initiating structure and consideration dimensions of leader behaviour. The second (PTO) was an instrument to assess teacher morale as perceived by teachers themselves. Results indicated that differences in perceived leadership behavioural patterns were related to differential morale scores in a statistically significant manner.

The data of teacher morale were content analysed and found to be related to the leadership behavioural patterns by a 10 x 4 analysis of variance factorial design. Other controlled variables like sex, age, qualifications, salary etc., were incorporated with leadership behavioural patterns to form factorial design to see the main effects and their interactions.

The net outcome of this study, as pointed out in earlier paragraphs, which can be inferred is that there are
differences in morale scores produced by differential perceptions of leadership behavioural patterns and that these differences cannot be accounted for by chance. Further, it can be seen that the source of variation from which the differences seem to derive is the relative emphasis on two dimensions of LBDQ - which fielded F-ratio which are significant at the .01 or .001 levels. Thus, it can be said that, from this analysis, differences in teacher morale scores seem to be related to the amount of emphasis that teachers see their leaders putting on initiating structure and consideration behaviour in leadership interaction.

The above general inference seems to be reinforced when the range of mean morale scores on various PTO factors separately and collectively as a composite scores are examined. It might have been observed that the highest mean morale scores are generated by the group of school teachers who perceived leadership behavioural pattern which is high initiating structure, high consideration. Next comes the pattern in which high initiating structure is maintained constant but perceptions of consideration move from high to low. Then comes the pattern in which initiating structure moves from high to low and finally lowest morale seems related to that situation where the leadership behavioural pattern appears to be completely passive having low initiating structure, low consideration.
This investigation seems to have added conforming data to a growing body of knowledge concerning the relationship between particular perceptions of leadership behavioural patterns by teachers and other relevant variables of the teachers. In particular, we were concerned here, with the question of whether or not these relationship that appeared to be consistent in previous studies of productivity, communication and interpersonal relationships (Gibb, 1954) would hold up in the matter of teacher morale. The data analysis suggests that they do that fairly distinct patterns of leadership behaviour are perceived by teachers and that these different patterns are related to varying levels of morale in the expected direction as hypothesised in the first introductory chapter.

5.16.1 Model of Leadership Behaviour

In order to answer the question of why these results should be obtained in such a relatively consistent manner, it is necessary to investigate the social emotional aspects of the four different patterns of leadership behaviour that has been used as independent variables. That is, the question needs to be asked.

"What is felt by a teacher on psycho-social as well as a task level, when a principal performs his duty according to one or the other pattern of behaviour?"
A way to answer this question is to look more closely at the specific dimensions of initiating structure and consideration as they have been used in this study and, thus, infer from them their connotative value for the teacher. For example, the initiating structure categories that appear in the instrument used were:

1. He rules with an iron hand.
2. He criticizes poor work.
3. He asks that staff members follow standard rules and regulations.

On the level of what is communicated by a principal when the principal predominantly engages in these behaviours, aside from specific content, the following behaviours are postulated.

* a concern for controlling the behaviour of the teacher
* a concern for evaluating the teacher,
* a concern for excluding the teacher from problem solving (a non-collaborative approach)

In regard to the consideration categories, they were for example as follows:

1. He treats all staff members as his equals.
2. He is willing to make change.
3. He looks out for personal welfare of individual staff members.
When a principal makes dominant use of these behaviours in leadership interactions it is postulated that what is conveyed to the teacher is:

* a concern for the teacher as a person (personal consideration)
* a concern for collaborative problem solving (engagement)

In summary, the organizational concern refers to the extent of a principal's needs both to control the teacher's classroom behaviour and the supervisory setting.

Engagement is concerned with the degree to which a principal, by his behaviour, conveys to the teacher that he wishes to involve him in a collaborative problem-solving venture.

The concern for personal consideration suggests how much the principal communicated to the teacher his concern about the teacher, not only as a vehicle for getting work done but, also, as a unique person with goals and feelings that play an important part in his work.

Exclusion, the obverse side of engagement, refers to the extent to which the principal seems to conceive of supervisory problem-solving as a non-collaborative, leader focused affair.
The evaluation concern refers to the degree to which the principal, in his interaction with the teacher, suggests to him that the most important purpose of leadership is the evaluation of the teacher as a worthy professional.

Fig. 5.5 suggests a model of what seem to be some potentially reasonable relationships between leadership patterns or styles and the concerns they communicate. The important thing to remember about this model is that the words that the principal speaks are less important than what the principal conveys by his behaviour.

**FIG. 5.7**

**POTENTIAL RELATIONSHIPS BETWEEN PRINCIPAL BEHAVIOURAL PATTERNS AND PRINCIPAL INTERACTION CONCERN**

<table>
<thead>
<tr>
<th>Concern for</th>
<th>HIS +</th>
<th>LIS -</th>
<th>HIS +</th>
<th>LIS -</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>HC +</td>
<td>HC +</td>
<td>LC -</td>
<td>LC -</td>
</tr>
<tr>
<td>1 Organization</td>
<td>High</td>
<td>Low</td>
<td>High</td>
<td>Low</td>
</tr>
<tr>
<td>2 Personal consideration</td>
<td>High</td>
<td>High</td>
<td>Low</td>
<td>Low</td>
</tr>
<tr>
<td>3 Evaluation</td>
<td>High</td>
<td>Low</td>
<td>High</td>
<td>Low</td>
</tr>
<tr>
<td>4 Engagement (Problem-solving non-collaboration)</td>
<td>High</td>
<td>High</td>
<td>Low</td>
<td>Low</td>
</tr>
<tr>
<td>5 Exclusion (Problem-solving non-collaboration)</td>
<td>High</td>
<td>Low</td>
<td>High</td>
<td>Low</td>
</tr>
</tbody>
</table>

This model enables us to make a more systematic interpretation of the results of this study by: (1) Providing
some operational notions about the components of morale, and (2) relating these notions, in a reasonable fashion, to the leadership patterns that have been previously defined.

It will be recalled that the results of this study indicated that high to low morale scores were related to perceptions of leadership behaviour patterns in the following order:

1. **HH**: High initiating structure, high consideration.
2. **LH**: Low initiating structure, high consideration.
3. **HL**: High initiating structure, low consideration.
4. **LL**: Low initiating structure, low consideration.

Reference to the model in Figure 5.4 suggests some reasons why these relationships developed:

1. **High initiating, High consideration**

In this behavioural pattern, the model indicated that this principal is perceived as one who regards as important the personal feelings, attitudes and needs of teachers; while at the same time, he maintains a highly structured organization. For example, he does personal favours for group members; he is friendly, approachable and he finds time to listen to the group members. Yet, he maintains definite standards of performance. The criticizes poor work;
and he emphasizes the meeting of deadline. The teacher serving under this principal uses his energies to the job and he perceives that his own feelings and needs will be considered in his relationships with his principal. One would predict, then, that a high state of morale would exist under these conditions.

2. **Low initiating structure, High consideration**

Here the situation changes. The organization, exclusion and evaluation concerns which were high in the previous condition now tend to be low. Thus, there is low control coupled with low evaluation, the teacher becomes licentious. For example, this principal tolerates a very loose organizations and has little concern about rules and regulation or uniformity of procedures. He never assigns group members to particular task and he never co-ordinates the work of the group members.

3. **High initiating structure, Low consideration**

Again the mix changes but this time, according to model a high concern for organization, evaluation and exclusion which seem to produce a low state of morale. Specifically, engagement and personal consideration appear to be lacking in this pattern in which morale would tend to be low and, indeed, the data indicate that this was the case.
The reasons for low morale scores under this model could be ascribed as under:

Principal rarely shows warmth in relationships with teachers. He never does personal favours for group members and he never consults with them regarding important decisions.

4. Low initiating structure, Low consideration

The model suggests that this behavioural pattern is marked by low consideration for all five major social emotional areas. In a sense, this pattern would seem to communicate to the teacher that the principal does not even care enough about the teacher to control and censure him. It is, in a way, a classic condition of laisser-faire. Given this latter condition, the prediction as far as morale is concerned would be low. Again, the data from the study confirm the model.

5. References


