CHAPTER-III

RESEARCH METHODOLOGY

3.1 Introduction

A research cannot be evaluated unless its procedure is reported in sufficient detail. The investigator should adopt a systematic and appropriate procedure in conducting the research. A careful consideration is being given in the selection of tools, collection of data and analyses of data. The accuracy, reliability and validity of the research findings depend on the correct and careful choice of the tools. The details regarding the variables, hypotheses choice of the tools, selection of the sample, collection of data and analyses are outlined in this chapter.

This chapter signifies the methodological framework of the study consists of the following aspects:

(i) Research Design
(ii) Hypotheses
(iii) Variables of the study
(iv) Tools used
(v) Sample of the study
Each of these aspects have been briefly described hereunder:

3.2 Research Design

The present study is a descriptive survey research method. The research design specifies the questions to be investigated, the process of sample selection, methods of procedure to be followed, measurements to be obtained and comparison and other analyses to be made. The research design of the study is presented in the Table No.3.1.

Table No.-3.1: Research Design

<table>
<thead>
<tr>
<th>Sl.No.</th>
<th>Variable studied</th>
<th>Tools used</th>
<th>Sample used</th>
<th>Statistics used</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Administrative Behaviour</td>
<td>Administrative Behaviour Questionnaire</td>
<td>210 Heads</td>
<td>Descriptive, Differential, Correlation Regression, Analysis</td>
</tr>
<tr>
<td>2</td>
<td>Role Efficacy</td>
<td>Role Efficacy Scale</td>
<td></td>
<td></td>
</tr>
<tr>
<td>5</td>
<td>Role Performance</td>
<td>Role Performance Questionnaire</td>
<td>420 teachers</td>
<td></td>
</tr>
</tbody>
</table>
3.3 Variables of the Study

Dependent Variable
i. Administrative Behaviour

Independent Variable
ii. Role Efficacy
iii. Role Performance

Moderator Variables
i. Gender (male and female)
ii. Age (25-34, 35-44 and 45 + years)
iii. Educational Qualifications (graduate and post graduate)
iv. Type of Management (Government, aided and unaided)
v. Experience
   a. Experience as a teacher (1-10, 11-20 and 21+ years)
   b. Experience as a Head master (1-10 and 11+ years)

3.4 Hypotheses of the Study

1. There is no significant difference between male and female Head masters of Secondary schools with respect to their Administrative Behaviour and its dimensions that is (1. Planning 2. Organization, 3. Communication and 4. Decision making).
2. There is no significant difference between age groups (25-34 years, 35-44 years, and 45+ years) of Head masters of Secondary schools with respect to their Administrative Behaviour and its dimensions.

3. There is no significant difference between Head masters of Secondary schools with graduation and post-graduation with respect to their Administrative Behaviour and its dimensions.

4. There is no significant difference between Head masters of Government, aided and unaided Secondary schools with respect to their Administrative Behaviour and its dimensions.

5. There is no significant difference between experience (1-10 years, 11-20 years, and 21+ years) of Head masters of Secondary schools as teacher with respect to their Administrative Behaviour and its dimensions.

6. There is no significant difference between experience of secondary school Head masters as a Head (1-10 years and 11+ years) with respect to their Administrative Behaviour and its dimensions.

7. There is no significant difference between Head masters of Secondary schools with low and high role efficacy with respect to their Administrative Behaviour and its dimensions.
8. There is no significant difference between Head masters of Secondary schools with low and high role performance with respect to their Administrative Behaviour and its dimensions.

9. There is no significant relationship between Administrative Behaviour and its dimensions with role efficacy and its dimensions of Head masters of Secondary schools as a whole.

10. There is no significant relationship between Administrative Behaviour and its dimensions with role efficacy and its dimensions of male Head masters of Secondary schools.

11. There is no significant relationship between Administrative Behaviour and its dimensions with role efficacy and its dimensions that is centrality, integration, pro-activity, creativity, inter-role linkage, helping relationship, superordination, influence, growth and confrontation of female Head masters of Secondary schools.

12. There is no significant relationship between Administrative Behaviour and its dimensions with role efficacy and its dimensions of Head masters with graduation of Secondary schools.

13. There is no significant relationship between Administrative Behaviour and its dimensions with role efficacy and its
dimensions of Head masters with post-graduation of Secondary schools.

14. There is no significant relationship between Administrative Behaviour and its dimensions with role efficacy and its dimensions of Head masters of Government Secondary schools.

15. There is no significant relationship between Administrative Behaviour and its dimensions with role efficacy and its dimensions of Head masters of aided Secondary schools.

16. There is no significant relationship between Administrative Behaviour and its dimensions with role efficacy and its dimensions of Head masters of unaided Secondary schools.

17. There is no significant relationship between Administrative Behaviour and its dimensions with role efficacy and its dimensions of Head masters of Secondary schools with 1-10 years of experience as a teacher.

18. There is no significant relationship between Administrative Behaviour and its dimensions with role efficacy and its dimensions of Head masters of Secondary schools with 11-20 years of experience as a teacher.

19. There is no significant relationship between Administrative Behaviour and its dimensions with role efficacy and its
dimensions of Head masters of Secondary schools with 21+ years of experience as a teacher.

20. There is no significant relationship between Administrative Behaviour and its dimensions with role efficacy and its dimensions of Head masters of Secondary schools with 1-10 years of experience as a Head.

21. There is no significant relationship between Administrative Behaviour and its dimensions with role efficacy and its dimensions of Head masters of Secondary schools with 11+ years of experience as a Head.

22. There is no significant relationship between Administrative Behaviour and its dimensions with role performance and its dimensions of Head masters of Secondary schools as a whole.

23. There is no significant relationship between Administrative Behaviour and its dimensions with role performance and its dimensions of male Head masters of Secondary schools.

24. There is no significant relationship between Administrative Behaviour and its dimensions with role performance and its dimensions of female Head masters of Secondary schools.

25. There is no significant relationship between Administrative Behaviour and its dimensions with role performance and its
dimensions of Head masters with graduation of Secondary schools.

26. There is no significant relationship between Administrative Behaviour and its dimensions with role performance and its dimensions of Head masters with post-graduation of Secondary schools.

27. There is no significant relationship between Administrative Behaviour and its dimensions with role performance and its dimensions of Head masters of Government Secondary schools.

28. There is no significant relationship between Administrative Behaviour and its dimensions with role performance and its dimensions of Head masters of aided Secondary schools.

29. There is no significant relationship between Administrative Behaviour and its dimensions with role performance and its dimensions of Head masters of unaided Secondary schools.

30. There is no significant relationship between Administrative Behaviour and its dimensions with role performance and its dimensions of Head masters of Secondary schools with 1-10 years of experience as a teacher.

31. There is no significant relationship between Administrative Behaviour and its dimensions with role performance and its dimensions of Head masters with graduation of Secondary schools.
dimensions of Head masters of Secondary schools with 11-20 years of experience as a teacher.

32. There is no significant relationship between Administrative Behaviour and its dimensions with role performance and its dimensions of Head masters of Secondary schools with 21+ years of experience as a teacher.

33. There is no significant relationship between Administrative Behaviour and its dimensions with role performance and its dimensions of Head masters of Secondary schools with 1-10 years of experience as a Head.

34. There is no significant relationship between Administrative Behaviour and its dimensions with role performance and its dimensions of Head masters of Secondary schools with 11+ years of experience as a Head.

35. Role efficacy and role performance would not be significant predictors of Administrative Behaviour of Head masters of Secondary schools as a whole.

36. Role efficacy and role performance would not be significant predictors of Administrative Behaviour of male Head masters of Secondary schools.
37. Role efficacy and role performance would not be significant predictors of Administrative Behaviour of female Head masters of Secondary schools.

38. Role efficacy and role performance would not be significant predictors of Administrative Behaviour of Head masters with graduation of Secondary schools.

39. Role efficacy and role performance would not be significant predictors of Administrative Behaviour of Head masters with graduation of Secondary schools.

40. Role efficacy and role performance would not be significant predictors of Administrative Behaviour of Head masters of Government Secondary schools.

41. Role efficacy and role performance would not be significant predictors of Administrative Behaviour of Head masters of aided Secondary schools.

42. Role efficacy and role performance would not be significant predictors of Administrative Behaviour of Head masters of unaided Secondary schools.

43. Role efficacy and role performance would not be significant predictors of Administrative Behaviour of Head masters of Secondary schools with 1-10 years of experience as a teacher.
44. Role efficacy and role performance would not be significant predictors of Administrative Behaviour of Head masters of Secondary schools with 11-20 years of experience as a teacher.

45. Role efficacy and role performance would not be significant predictors of Administrative Behaviour of Head masters of Secondary schools with 21+ years of experience as a teacher.

46. Role efficacy and role performance would not be significant predictors of Administrative Behaviour of Head masters of Secondary schools with 1-10 years of experience as a Head.

47. Role efficacy and role performance would not be significant predictors of Administrative Behaviour of Head masters of Secondary schools with 11+ years of experience as a Head.

3.5 Tools Used

The following tools were used to measure the variables of the study.

1) Administrative Behaviour Scale (ABS) by Hassen Taj. (1998): administered to the Head masters to study the Administrative Behaviour.

2) Role Efficacy Scale – by Uday Pareek (2002): administered to the Head masters to study the Role Efficacy.

3) Role Performance Questionnaire by Bhagia (1986):
administered to the teachers to study the Role Performance of their Head masters.

3.5.1 Administrative Behaviour Scale

Administrative Behaviour Scale (ABS): Administrative Behaviour (ABS) popularly known as ABS developed by Hassen Taj (1998) has been employed for the purpose of collecting data on Administrative Behaviour of secondary school Headmasters as perceived by their respective teachers.

This is a 90 item questionnaire divided into four independent areas of Administration called Planning, Organisation, Communication and Decision making, the first area includes 2) items, second area includes 26 items, third area includes 28 items and fourth area is made up of 15 items. The scale is designed to find answers to the questions. What does your own Head of the school actually do? All the 90 items are presented with a 5-point scale (continuous answer) that has scoring weights of zero to four, depending on the item orientation to the total dimension. The highest possible score Rs. 90x5 = 450.
**Reliability**

The reliability of the scale was found by split half method and coefficient of reliability of the personal effectiveness scale was found to be 0.7490.

**Validity**

Validity of the scale has been established empirically by taking scores of Heads of schools regarding Administrative Behaviour scale. Thus the coefficient of validity was found to be 0.8654. The indices of reliability and validity show that the scale is reasonably reliable and valid tool to measure administrative behaviour.

**Table No. -3.2: Scoring for positive items**

<table>
<thead>
<tr>
<th>Options</th>
<th>Always</th>
<th>Frequently</th>
<th>Sometime</th>
<th>Rarely</th>
<th>Never</th>
</tr>
</thead>
<tbody>
<tr>
<td>Marks allotted</td>
<td>4</td>
<td>3</td>
<td>2</td>
<td>1</td>
<td>0</td>
</tr>
</tbody>
</table>
### Table No.-3.3: Area-wise Distribution of Items

<table>
<thead>
<tr>
<th>Sl. No.</th>
<th>Areas</th>
<th>No. of Items</th>
<th>Item No. give in ABS.</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Planning</td>
<td>21</td>
<td>1, 8, 11, 15, 19, 23, 26, 34, 36, 48, 52, 55, 56, 61, 64, 68, 75, 77, 79, 89.</td>
</tr>
<tr>
<td>2</td>
<td>Organization</td>
<td>26</td>
<td>5, 7, 9, 12, 16, 21, 25, 29, 35, 38, 39, 40, 44, 51, 57, 60, 66, 70, 71, 74, 78, 80, 82, 84, 85, 87, 90</td>
</tr>
<tr>
<td>3</td>
<td>Communication</td>
<td>28</td>
<td>3, 4, 10, 14, 18, 22, 24, 27, 31, 32, 37, 41, 43, 45, 46, 49, 50, 53, 54, 63, 67, 69, 73, 76, 81, 83, 86, 88.</td>
</tr>
<tr>
<td>4</td>
<td>Decision Making</td>
<td>15</td>
<td>2, 6, 13, 17, 20, 28, 30, 33, 42, 47, 58, 59, 62, 65, 72.</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td></td>
<td><strong>90</strong></td>
<td></td>
</tr>
</tbody>
</table>

#### 3.5.2 Role Efficacy Scale

To collect the relevant data the Role Efficacy Scale (RES) of Pareek (2002) was adopted. The scale consists of 20 items under 10 dimensions. Role effectiveness can be assessed through this instrument. The 10 aspects can be probed to work out ways to increase effectiveness by increasing the aspect on which one’s score is low.

The role efficacy scale was a structured instrument consisting of 20 triads of statements. A respondent marks one statement in each triad that describes his role most accurately. (There are two
statements for each dimension of role efficacy and the scoring pattern followed is +2, +1 or -1.)

The regular scale is completed by assistant teachers for their own role, especially the role being supervised by the Heads of secondary schools.

**Dimensions of Role Efficacy Scale**

The 10 dimensions of Role Efficacy Scale are as stated below:

a. Centrality  
b. Integration  
c. Pro-activity  
d. Creativity  
e. Inter-role linkage  
f. Helping relationship  
g. Super ordination  
h. Influence  
i. Growth  
j. Confrontation

There are two statements for each dimension of role efficacy and the scoring pattern followed was +2, +1 or -1. The three alternatives for each statement were pre-weighted.
### Table No.-3.4 Dimensionwise Distribution of Items of Role Efficacy Scale

<table>
<thead>
<tr>
<th>Tool</th>
<th>Dimensions</th>
<th>Item Numbers</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>Role Efficacy Scale</td>
<td>Centrality</td>
<td>1,11</td>
<td>2</td>
</tr>
<tr>
<td></td>
<td>Integration</td>
<td>2,12</td>
<td>2</td>
</tr>
<tr>
<td></td>
<td>Pro-activity</td>
<td>3,13</td>
<td>2</td>
</tr>
<tr>
<td></td>
<td>Creativity</td>
<td>4,14</td>
<td>2</td>
</tr>
<tr>
<td></td>
<td>Inter-role linkage</td>
<td>5,15</td>
<td>2</td>
</tr>
<tr>
<td></td>
<td>Helping relationship</td>
<td>6,16</td>
<td>2</td>
</tr>
<tr>
<td></td>
<td>Superordination</td>
<td>7,17</td>
<td>2</td>
</tr>
<tr>
<td></td>
<td>Influence</td>
<td>8,18</td>
<td>2</td>
</tr>
<tr>
<td></td>
<td>Growth</td>
<td>9,19</td>
<td>2</td>
</tr>
<tr>
<td></td>
<td>Confrontation</td>
<td>10,20</td>
<td>2</td>
</tr>
<tr>
<td></td>
<td>Total</td>
<td>20</td>
<td></td>
</tr>
</tbody>
</table>

The asterisk mark indicates the negative items

### Scoring

The following key is used for scoring responses.

### Table No.-3.5: Scoring Key for Role Efficacy Scale

<table>
<thead>
<tr>
<th>Dimension</th>
<th>Item</th>
<th>a</th>
<th>b</th>
<th>C</th>
<th>Item</th>
<th>a</th>
<th>b</th>
<th>c</th>
</tr>
</thead>
<tbody>
<tr>
<td>Centrality</td>
<td>1</td>
<td>+1</td>
<td>+1</td>
<td>-1</td>
<td>11</td>
<td>+2</td>
<td>+1</td>
<td>-1</td>
</tr>
<tr>
<td>Integration</td>
<td>2</td>
<td>+1</td>
<td>-1</td>
<td>+2</td>
<td>12</td>
<td>-1</td>
<td>+2</td>
<td>+1</td>
</tr>
<tr>
<td>Pro-activity</td>
<td>3</td>
<td>-1</td>
<td>+1</td>
<td>+2</td>
<td>13</td>
<td>-1</td>
<td>+2</td>
<td>+1</td>
</tr>
<tr>
<td>Creativity</td>
<td>4</td>
<td>+1</td>
<td>+2</td>
<td>-1</td>
<td>14</td>
<td>+2</td>
<td>+1</td>
<td>-1</td>
</tr>
<tr>
<td>Inter-role linkage</td>
<td>5</td>
<td>-1</td>
<td>+2</td>
<td>+1</td>
<td>15</td>
<td>+2</td>
<td>+1</td>
<td>-1</td>
</tr>
<tr>
<td>Helping relationship</td>
<td>6</td>
<td>+1</td>
<td>+2</td>
<td>-1</td>
<td>16</td>
<td>-1</td>
<td>+2</td>
<td>+1</td>
</tr>
<tr>
<td>Superordination</td>
<td>7</td>
<td>-1</td>
<td>+2</td>
<td>+1</td>
<td>17</td>
<td>+1</td>
<td>+2</td>
<td>-1</td>
</tr>
<tr>
<td>Influence</td>
<td>8</td>
<td>+1</td>
<td>-1</td>
<td>+2</td>
<td>18</td>
<td>+2</td>
<td>+1</td>
<td>-1</td>
</tr>
<tr>
<td>Growth</td>
<td>9</td>
<td>+1</td>
<td>-1</td>
<td>+2</td>
<td>19</td>
<td>+2</td>
<td>+1</td>
<td>-1</td>
</tr>
<tr>
<td>Confrontation</td>
<td>10</td>
<td>-1</td>
<td>+2</td>
<td>+1</td>
<td>20</td>
<td>+1</td>
<td>-1</td>
<td>+2</td>
</tr>
</tbody>
</table>
Reliability and Validity

Sen (1982) reported a retest reliability of 0.68 significant at 0.001 level. This shows the high stability of the scale.

The reliability of the Role Efficacy Scale was computed using split-half method of reliability. The overall reliability of the scale was 55.7221 and the overall validity 0.7465.

Thus this tool is found to be reliable and valid.

3.5.3 Role Performance Questionnaire

The Role Performance Questionnaire (RPQ) developed by Bhagia (1986) was administered to the teachers to study the role expectation from their principals. The questionnaire consisted of 83 items organized into 10 roles. The roles and the number of items under each role are as follows:

1) Planner and Innovator (7 items)
2) Office Manager (11 items)
3) Resource Facilitator (12 items)
4) Supervisor of the Instructional Programme (9 items)
5) Promoter of co-curricular Activities (10 items)
6) Staff Evaluator and Motivator (7 items)
7) Mentor and Reconciliator (7 items)
8) Academician and Teacher (7 items)
9) Representative of the college (6 items)
10) Bridge Builder with the Community (7 items)

Each role comprises 6-12 activities described in behaviorally anchored terms and the response mode indicates the frequency with which that activity is performed.

As reported by the author of the test, experienced psychologists and educationists established the content validity of the RPQ through face validity judgment in the construction of the questionnaire. The initial items of the questionnaire were selected from items written by principals of colleges, students, and lecturers. Psychologists and educationists judged relevance of these items for inclusion under different roles. Tryout of the questionnaire with 10 lecturers and educationists further established the content validity.
The split half method of estimating the internal consistency that is reliability was used. The RPQ of 83 items was split into two sets: all odd numbered items forming one sub-set and even numbered items forming the other sub-set. The scores of the two subjects were then correlated. The reliability of the test was found to be 0.98.

For construction of questionnaire, the list of roles and activities formed the basis for the development of the role performance questionnaire. After the selection of items by the experts for inclusion in RPQ, the items were prepared in the form of statements and a response mode for the items was designed. The design of the response mode was determined by the objective of studying the extent to which these roles are being performed. A response mode was therefore according to a time scale. To provide a wide enough range of time, a five-point scale was adopted: always, frequently, sometimes, rarely, never. At a later stage after the initial try-out, two more response options were added: do not know and not applicable. To accommodate the situation where a respondent for the questionnaire may not be aware if the activity is being
performed or no, in case the activity is not a very visible one, 'do not know' category was added. In some cases the role may not be applicable to some categories of institutions 'not applicable' category was added.

Assigning a score of 5 to response category 'always'; 4 to 'frequently'; 3 to 'sometimes'; 2 to 'rarely'; and 1 to 'never' scored the role performance Questionnaire. For responses sought through the categories 'not applicable' and 'do not know' the assigned score was Zero. Thus in case of a respondent who responded to all items, the scores ranged form a maximum score of maximum 415 to a minimum score of 83. The items, having a score of zero were deducted from the total number of items in the questionnaire. For example, if out of 83 items, 8 items were marked zero, then scores were calculated on the basis of 75 items (83-8). In this case the scores would range from a maximum score of 375 (75x5) to a minimum of 75.

3.6 Sample and Sampling Technique

Sample: Sample is said to be true representative of the population.

The present study is widely distributed in seven districts of
Belgaum division (Belgaum, Dharwad, Karwar, Bijapur, Bagalkot, Gadag, Haveri).

There are three types of secondary schools working in the above seven Districts. They are Government schools, Aided schools and Un-aided schools. The investigator intends to choose the required sample with the help of purposive random sampling. The procedure is as follows;

Table No. 3.6: Sample of Heads of Schools

| 1. | Ten Government schools from each district | $10 \times 7 = 70$ |
| 2. | Ten Aided schools from each district | $10 \times 7 = 70$ |
| 3. | Ten Un-aided schools from each district | $10 \times 7 = 70$ |
| 4. | Headmasters / Headmistress of each above schools = 210 amongst this One male and One female Heads of school was chosen. | 210 |
| 5. | **Sample of Teachers:** Two teachers of each school. | $210 \times 2 = 420$ |

3.7 Data Collection

The investigator personally collected the data form 210 Headmasters of secondary schools of seven districts. Headmasters of schools were personally administered the tools. Clear-cut instructions were given to fill up the responses to the items in the
tools. The filled in proformas and tools were collected. The collected data was systematically pooled for analyses.

3.8 Statistical Techniques Used

The following statistical techniques were used for analyzing the data as per the objectives of the study stated earlier.

(i) Descriptive analysis
(ii) Differential analysis
(iii) Correlation analysis
(iv) Regression analysis

3.9 Conclusion

The methodology adopted is described in this chapter. The data collected from the secondary school teachers are analyzed using appropriate statistical techniques for description and inference. The details of the data analyses is presented in the next chapter.