CHAPTER IV

METHODOLOGY

4.0 Introduction

The study deals with the dynamics of two independent variables namely the 'Leadership Behaviour' and the 'Management Behaviour' and the dependent variable the 'Quality in Education'. Dimensions of behavioral aspects, personal traits and socioeconomic status of those involved, and the surroundings can be conceived as input to the system leading to the output in the form of quality in school education. Leadership behaviour of the people who matter in conjunction with the management behaviour determines the quality in school.

Since the school is a social instrument of growth and development this service sector is being observed by everyone right from the national level planners down to the lone parent who sends the ward to the lower classes. The level and frame of expectations are distinctly different for different persons. But there is a common factor that quality in education should be achieved in a given time and situation. The quality in education being the demand of the society from the school, the managers of the school harp much on maximizing school effectiveness and thereby the quality in education.
The reputation is the very soul of existence of a well meaning school. Any public opinion permeates through the society both horizontally and vertically along the social strata through word of mouth. Analyzing the school sector in the parlance of the other service management, for example, transport or communication, one sees that the physical resources are not the only features that matter in the field of education. Since the streaks of professional outlook and managerial approaches have started appearing in those fields the school management will have to redefine the leadership behaviours and enhance the quality in education for top-notch output of academic achievement and reputation.

Any pragmatic analysis of this pursuit on par with the expectation should involve the actors and the assessors. The leadership behaviour and the management behaviour are factors with lot of social, financial and behavioral restrictions. Any expectation on these parameters are to be more pragmatic than idealistic. In order to make the views down to earth, the investigation has a focus on the actors, namely, the principal/heads of schools and the teachers. This concept agrees well with another aspect—the view points of looking for the students and the parents as seekers of the service and the principals and teachers as service providers.
4.1 Design of Study

According to Best (1981) the design of study explains "the size of the samples and how they are selected, the variables and the control employed, the sources and methods of gathering data, the reliability of the instruments selected or constructed and the statistical procedures used in the analysis".

The present study was planned as a descriptive research. It aims at investigating leadership behaviour and management behaviour as independent variables and quality in education as a dependent variable.

4.2 Hypotheses of the Study

The main independent variables assumed are leadership behaviour and management behaviour. To a certain extent leadership behaviour could influence the management behaviour. Therefore while leadership behaviour is assessed in terms of certain well defined traits, all other key parameters which shape the internal work environment of the school are considered as part of the management behaviour for the purpose of this study.

'Quality in education' is presumably dependent on the above stated two variables and is also influenced by the external environment on the educational system. The latter aspect is outside the scope of this study, which presumes the influence on the educational system to be a given constant.

It is presumed that management behaviour can be assessed based on certain key parameters and categorized in relative levels of high, medium, low.
The key parameters include teacher, taught (students) and facilities. Both quality of teachers and students to the extent to which they are motivated to give their best with all facilities provided by the leadership come under the canvas of management behaviour.

Keeping in view the objectives stated in Chapter I, the following hypotheses were formulated:

H 1: Leadership Behaviour (LB) of the principal / HM of the school has no relationship with the quality in education (QE).

H 2: Management Behaviour (MB) of the individuals concerned in the institution has no relationship with the quality in education (QE).

H 3: Leadership Behaviour of the Principal / HM of the school has no relationship with Management Behaviour (MB) of the individuals concerned in the school.

H 4: Schools in Urban area, Rural area and City area do not differ significantly in their
   (i) LB
   (ii) MB and
   (iii) QE

H 5: Schools of different types of management (Government, Government Aided and Private) do not differ significantly in their
   (i) LB
   (ii) MB and
   (iii) QE
H6: Teachers whose experience is 11 years and above and those whose experience is 10 years and less than 10 years do not differ significantly in their perception of

(i) LB
(ii) MB and
(iii) QE

H7: Men and women teachers do not differ significantly in their perception of

(i) LB
(ii) MB and
(iii) QE

4.3 Tools Used

The investigator developed the following tools to measure the variables: leadership behaviour, management behaviour and quality in education.

a. Leadership Behaviour Questionnaire
b. Management Behaviour Questionnaire
c. Quality in Education Questionnaire
d. Personal Data – Sheet

A. Leadership Behaviour Questionnaire

Based on the conceptual overview discussed in Chapter II and review of related literature to Leadership Behaviour presented in Chapter III, the following dimensions were thought to be useful and adequate to measure the leadership behaviour of the heads of schools, generally known as Principals/HMs.
1. Coordination (C1)
2. Knowledge (C2)
3. Guidance (C3)
4. Setting exemplary Models (C4)
5. Identifying and Recognizing (C5)
6. Total participation (C6)

To measure these dimensions, items were constructed pertaining to Principal and Teacher involvements and instructional plans. Teacher involvement was assessed in six aspects namely delegation of authority, evaluating the performance of the members, acting as a coordinator, orientating new teachers, conducting regular staff meeting and arranging in service to the teachers.

1. Coordinating all the school activities besides working as the coordinator among the parents, teachers, students and the Government officials is the work of the ‘leaders’ in a school.

2. A Principal/H.M or a teacher should ever be a student and thereby keep themselves updated with the academic and general knowledge.

3. With the acquired knowledge the leader should guide his/her coworkers and the students entrusted to his/her care.

4. By all means the Principal/H.M remains an exemplary model to the coworkers, students and community.
5. A leader identifies and recognizes the talents of his coworkers and students in order to utilize the available sources in the right way at the right time.

6. To put everything in a nutshell the leader should get himself/herself involved thoroughly for the improvement of the quality of the school.

Statements pertaining to teacher involvement covered both curricular co-curricular and extra-curricular activities. Instructional involvement and humanitarian concerns were also assessed by a few items. The initial version of the questionnaire contained 100 items pertaining to the requiring responses on a five point scale.

B. Management Behaviour Questionnaire

A healthy educational institution or any organization is one that not only survives in its environment but continues to grow and prosper. The most important requirements should focus on acceptable goals provided by the Top Management/Leadership, good interpersonal relations and morals, communication adequacy, optimal power equation and consistency, fit with the demands of the environment, make the organization healthy and thriving.

On the basis of 'Total Quality Management' principles to 'School education', the 'Management Behaviour Questionnaire' was developed to measure quality in education with reference to the dimensions under six categories namely,
1. Establishing the system (C7)
2. Supervision (C8)
3. Motivation (C9)
4. Decentralization (C10)
5. Personality Development (C11)
6. Inter-personal Relationship (C12)

To measure these dimensions items were constructed pertaining to involvement of the

(i) Principals/H.Ms
(ii) Teachers
(iii) Students and
(iv) Parents of the students

‘Establishing the system’ is the school’s ability to cope with the environment in a way that maintains the educational system of its programmes. Teachers are protected from the unreasonable hostile community and the improper parental demands. Here comes the ‘supervision’ of the principal that would help influence the actions of teachers and the parents. ‘Motivation’ is a common behaviour to the principal and teachers that is essential for the growth and personality development of the students. ‘Decentralization’ refers to the sharing of the ‘responsibilities’ and ‘allocation of work’ among the teachers, students and parents by the principal and the management. ‘Personality Development’ of the students should also be the concern of the principal and teachers to whom the parents have entrusted their wards to care. ‘Interpersonal
relationship' is the behaviour of the principal, teachers, students and their parents that is friendly, supportive, open and congenial. It represents a common genuine concern for the welfare of the students, on the part of the principal, teachers and parents.

The initial version of the questionnaire contained one hundred and five items. The respondents were required to respond on a five point scale.

C. Quality in Education in Schools

Based on the findings of the earlier studies made by Mukhopadhyay Marmar and Sinha N., (1993) utilisation of media in education (a commissioned study by Ministry of Human Resource Development). New Delhi and the fact that quality education is our first priority, six important dimension of Quality in Education were identified as follows:-

1. School Facilities (C13)
2. Care For Students (C14)
3. Parent and School Relationship (C15)
4. Methods and Materials (C16)
5. Academic Excellence (C17)
6. Teaching Faculty (C18)

These dimensions were measured, by collecting data from Principals/ HMs and teachers. 'School Facilities' refer to School resources that are available in school for both curricular and co-curricular activities, and the
students' use of such resources. The contribution of parents was ascertained by questions pertaining to three dimensions namely

(i) **Co-operation extended** to the management in the maintenance of academic discipline and to the students academically.

(ii) **Participation in parent-teacher related activities** and

(iii) **Financial support to the schools towards improving the facilities** for the teachers and learners.

The initial version of the questionnaire contained one hundred and seven items pertaining to the above mentioned areas covering the six dimensions of quality in education. The respondents were asked to respond on a five point scale.

D. **Personal Data - Sheet**

Personal information was collected from Principal/H.M. and Teachers using a personal data sheet. This sheet was designed to collect data on the respondent's name, age, sex, type of school, qualification, experience, place of work, medium of instruction. (Appendix A and Appendix B)

4.3.1 **Pilot Study**

In order to assess the effectiveness of the questionnaires developed by the investigator a pilot study was conducted at St. Joseph’s Boys’ Higher Secondary School, Vepery, Chennai, Doveton Boys’ Higher Secondary School, Chennai, St. Aloysius Girls’ Higher Secondary School, Chennai, and
St. Mathais' Higher Secondary School (mixed). Three Principals (one of the
three Principals is the investigator) and 97 Teachers were selected to respond to
the questionnaires.

In the pilot study filling up the questionnaires took nearly an hour and a
half. Teachers of different categories of the above schools did their full justice
in answering all the three questionnaires.

An item analysis was performed. The purpose of the item analysis is to
ensure that final items evoke a wide response and contribute significantly to the
construct being tested. Items correlating significantly with the total score are
retained and other items are not considered for inclusion in the final form of the
questionnaires.

Analysis of the data collected during the pilot study revealed the
following abnormalities:

1. The questionnaires were too long and time consuming.

2. Some questions were not relevant.

3. Some questions were vague and hence elicited ambiguous
   answers.

4. Weightage of items was not properly distributed.

All those items not correlating with the total score in each questionnaire
were deleted. The selected items were given in the tables 4.1.1, 4.1.2 and 4.1.3.
4.3.2 Final Format

Keeping these points in mind the investigator modified the questionnaire for the three variables, namely

1. Leadership Behaviour
2. Management Behaviour and
3. Quality in Education

Leadership Behaviour comprises 33 questions (Part-A), Management Behaviour comprises 34 questions (Part-B) and Quality in education comprises 33 questions (Part-C). Altogether the modified questionnaire was framed with one hundred items. Table 4.1.1, 4.1.2 and 4.1.3 show the distribution of items for each part of the questionnaire (see Appendix C for the copy of the questionnaire).

Table 4.1.1

Components wise Distribution of items in the Leadership Behaviour Questionnaire – Part A

<table>
<thead>
<tr>
<th>Sl.No.</th>
<th>COMPONENTS</th>
<th>Exact number of the items in the order</th>
<th>Total number of items</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>COORDINATION (C1)</td>
<td>5, 11, 13, 28, 29, 30</td>
<td>6</td>
</tr>
<tr>
<td>2</td>
<td>KNOWLEDGE (C2)</td>
<td>7, 12, 21, 23, 26, 31</td>
<td>6</td>
</tr>
<tr>
<td>3</td>
<td>GUIDANCE (C3)</td>
<td>1, 2, 22, 24, 32</td>
<td>5</td>
</tr>
<tr>
<td>4</td>
<td>SETTING MODELS (C4)</td>
<td>6, 15, 16, 18, 20, 25</td>
<td>6</td>
</tr>
<tr>
<td>5</td>
<td>IDENTIFYING AND RECOGNISING (C5)</td>
<td>8, 9, 10, 14, 33</td>
<td>5</td>
</tr>
<tr>
<td>6</td>
<td>TOTAL PARTICIPATION (C6)</td>
<td>3, 4, 17, 19, 27</td>
<td>5</td>
</tr>
<tr>
<td></td>
<td><strong>Total</strong></td>
<td></td>
<td><strong>33</strong></td>
</tr>
</tbody>
</table>
Table 4.1.2

Components wise Distribution of items in the Management Behaviour Questionnaire - Part B

<table>
<thead>
<tr>
<th>Sl.No.</th>
<th>COMPONENTS</th>
<th>Exact number of the items in the order</th>
<th>Total Number of Items</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Establishing the system</td>
<td>49, 54, 58, 64, 67</td>
<td>5</td>
</tr>
<tr>
<td>2</td>
<td>Supervision</td>
<td>34, 40, 50, 57, 66</td>
<td>5</td>
</tr>
<tr>
<td>3</td>
<td>Motivation</td>
<td>36, 45, 48, 62, 65</td>
<td>5</td>
</tr>
<tr>
<td>4</td>
<td>Decentralization</td>
<td>35, 38, 42, 59, 61</td>
<td>5</td>
</tr>
<tr>
<td>5</td>
<td>Personality Development</td>
<td>39, 41, 47, 52, 53, 56, 63</td>
<td>7</td>
</tr>
<tr>
<td>6</td>
<td>Inter-personal Relationship</td>
<td>37, 43, 44, 46, 51, 55, 60</td>
<td>7</td>
</tr>
<tr>
<td></td>
<td><strong>Total</strong></td>
<td><strong>34</strong></td>
<td></td>
</tr>
</tbody>
</table>

Table 4.1.3

Components wise Distribution of items in the Quality in Education Questionnaire - Part C

<table>
<thead>
<tr>
<th>Sl.No.</th>
<th>Components</th>
<th>Exact number of the items in the order</th>
<th>Total Number of Items</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>School Facilities</td>
<td>71, 76, 79, 93, 95</td>
<td>5</td>
</tr>
<tr>
<td>2</td>
<td>Care for Students (Pupil Care)</td>
<td>72, 74, 84, 86, 87, 91, 94, 96, 100</td>
<td>9</td>
</tr>
<tr>
<td>3</td>
<td>Parent and School Relationship</td>
<td>64, 69, 97, 98</td>
<td>4</td>
</tr>
<tr>
<td>4</td>
<td>Methods and Materials</td>
<td>73, 75, 83, 85, 88, 92</td>
<td>6</td>
</tr>
<tr>
<td>5</td>
<td>Academic Excellence</td>
<td>78, 90, 99</td>
<td>3</td>
</tr>
<tr>
<td>6</td>
<td>Teaching Faculty</td>
<td>70, 77, 80, 81, 82, 89</td>
<td>6</td>
</tr>
<tr>
<td></td>
<td><strong>Total</strong></td>
<td><strong>33</strong></td>
<td></td>
</tr>
</tbody>
</table>

4.3.3 Scoring Procedure

A suitable scoring key was formed as follows:

POSITIVE--------- 1  2  3  4  5

NEGATIVE--------- 5  4  3  2  1
For both Leadership Behaviour Questionnaire and Management Behaviour Questionnaire, the scoring key was formulated giving for the positive questions the scores 5, 4, 3, 2 and 1 and for the negative questions the scoring was done in the reverse order. A similar scoring procedure was followed for quality in education in schools questionnaire.

### 4.3.4 Reliability and Validity of the Tools

Reliability of the tools was established using split half method. Using Spearman Brown formula the values were raised to full tests. The results are tabulated in the table 4.2

<table>
<thead>
<tr>
<th>Tool</th>
<th>No of Items</th>
<th>Coefficient of Reliability For half test</th>
<th>For full test</th>
</tr>
</thead>
<tbody>
<tr>
<td>Leadership Behaviour-Part A</td>
<td>33</td>
<td>0.887</td>
<td>0.94</td>
</tr>
<tr>
<td>Management Behaviour-Part B</td>
<td>34</td>
<td>0.90</td>
<td>0.95</td>
</tr>
<tr>
<td>Quality in Education-Part C</td>
<td>33</td>
<td>0.94</td>
<td>0.97</td>
</tr>
</tbody>
</table>

Part-A – LB (1-33), Part-B – MB (34-67), Part-C – QE (68-100)

Concurrent validity was established by calculating the correlation coefficient \(r=0.87\) between the tool (Leadership Behaviour) and another standardised tool measuring the same construct. (Dr. Koshy Varghese, 1999) and in this way the construct validity has been ensured.

Concurrent validity was established by calculating the correlation coefficient \(r=0.82\) between the tool (Management Behaviour) and another
standardised tool measuring the same construct. (MBQ. By C.N. Daftuar. 1988
1999) and in this way the construct validity has been ensured.

Concurrent validity was established by calculating the correlation
coefficient (r=0.88) between the tool (Quality in Education) and another
standardised tool measuring the same construct. (Dr. Koshy Varghese, 1999) and
in this way the construct validity has been ensured.

4.4 Sample

The investigation was a descriptive study. The sample for the present
study constituted the Principals/ Headmasters/ Headmistresses and Teachers
randomly drawn from institutions of secondary and Higher Secondary Schools
from the rural area, urban area and city in Tamil Nadu. The institutions selected
were of different types:

1. Medium of instruction (English, regional language (Tamil)
2. School Type (Boys School, Girls school, Mixed school)
3. Syllabi followed (State Board, Matriculation Board, Anglo -
   Indian Board)
4. Type of Management (Government, Government Aided and
   Private).
5. Place of Work – Areawise (City, Urban and Rural).

The sample distribution is shown in table 4.3 and 4.4
Table 4.3

Category wise Distribution of the Sample

<table>
<thead>
<tr>
<th>Sl. No</th>
<th>Category</th>
<th>Whole Group</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Principal/HM</td>
<td>20</td>
</tr>
<tr>
<td>2</td>
<td>Teachers</td>
<td>670</td>
</tr>
<tr>
<td></td>
<td>Total Sample</td>
<td>690</td>
</tr>
</tbody>
</table>

Table 4.4

Area wise, Gender wise and School Type wise Distribution of the Sample

<table>
<thead>
<tr>
<th>Variable and its Category</th>
<th>Principal</th>
<th>Teachers</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>Gender –</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Male</td>
<td>10</td>
<td>223</td>
<td>233</td>
</tr>
<tr>
<td>Female</td>
<td>10</td>
<td>447</td>
<td>457</td>
</tr>
<tr>
<td>Area –</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Urban</td>
<td>7</td>
<td>307</td>
<td>314</td>
</tr>
<tr>
<td>Rural</td>
<td>6</td>
<td>170</td>
<td>176</td>
</tr>
<tr>
<td>City</td>
<td>7</td>
<td>193</td>
<td>200</td>
</tr>
<tr>
<td>Type of School –</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Govt.</td>
<td>7</td>
<td>135</td>
<td>142</td>
</tr>
<tr>
<td>Aided</td>
<td>7</td>
<td>330</td>
<td>337</td>
</tr>
<tr>
<td>Private</td>
<td>6</td>
<td>205</td>
<td>211</td>
</tr>
</tbody>
</table>

Experience

<table>
<thead>
<tr>
<th>&lt; = 10 Years</th>
<th>&gt; = 11 Years</th>
</tr>
</thead>
<tbody>
<tr>
<td>0</td>
<td>20</td>
</tr>
<tr>
<td>450</td>
<td>220</td>
</tr>
</tbody>
</table>

4.5 Collection of Data

The subjects were asked to read the inventory carefully after a brief explanation of the test by the investigator. They were requested to give their free, frank and genuine opinion by ticking any one of the categories in their options column. The investigator himself was one of the respondents.
4.6 Conclusion

The methodology adopted is described in this chapter. The data collected from the groups of respondents, namely Principals and Teachers were analyzed using appropriate statistical techniques for description and inference. The details of data analyses are presented in the next chapter.