CHAPTER - VI

SUMMARY AND CONCLUSION

The data collected for the present investigation have been analysed and findings presented in the preceding chapters. This chapter presents a brief summary of the investigation, the findings, discussion of the findings, conclusions that have been drawn from the findings, limitations of the study, implications for education of the MDRS students and suggestions for further research in the field.

6.1 Statement of the Problem

The purpose of the study was to investigate the Adjustment Problems Associated with Academic Achievement of Students Studying in Morarji Desai Residential Schools of Karnataka.

6.2 General Objectives of the Study

The present study was undertaken with the following general objectives:

(i) To investigate the relationship of different areas of adjustment problems with total academic achievement and
its components in the entire sample and sub-samples of MDRSs.

(ii) To determine the relative efficiency of different adjustment variables in predicting total academic achievement and its components of students studying in MDRSs;

(iii) To study the direct and indirect effects / paths of different adjustment variables on total academic achievement and its components in the entire sample and sub-samples of MDRSs; and

(iv) To identify the factors and clusters in adjustment and academic achievement variables when taken in linear combination in terms of their contributions to variation in academic success of students studying in MDRSs.

6.3 Variables Considered in the Study

6.3.1 Independent (Predictor) Variables

Adjustment Problems

Problems relating to —

- Residence,
- Food,
- Peer-group,
- Curriculum,
- Co-curriculum,
- Classroom teaching, and
- Evaluation.
6.3.2 Dependent (Criterion) Variables

Components of Academic Achievement

Students' performance in school subjects like:

- Kannada,
- English,
- Hindi,
- Mathematics,
- Science,
- Social Studies, and
- Total Academic Achievement

6.4 Specific Objectives of the Study

In pursuance of the General Objective-(i) the following specific objectives were set up:

(i) To investigate the relationship of various components of adjustment problems—residence, food, peer-group, curriculum, co-curriculum, classroom teaching and evaluation with total adjustment problems.

(ii) To investigate the relationship of various components of academic achievement variables—Kannada, English, Hindi, Mathematics, Science and Social Studies with total academic achievement.

(iii) To investigate the relationship of various components of student adjustment problems—residence, food, peer-
group, curriculum, co-curriculum, classroom teaching and evaluation with their academic achievement in Kannada, English, Hindi, Mathematics, Science, Social Studies and total academic achievement.

(iv) To investigate the relationship of various components of boys adjustment problems – residence, food, peer-group, curriculum, co-curriculum, classroom teaching and evaluation with their academic achievement in Kannada, English, Hindi, Mathematics, Science, Social Studies and total academic achievement.

(v) To investigate the relationship of various components of girls adjustment problems – residence, food, peer-group, curriculum, co-curriculum, classroom teaching and evaluation with their academic achievement in Kannada, English, Hindi, Mathematics, Science, Social Studies and total academic achievement.

(vi) To investigate the relationship of various components of urban students adjustment problems – residence, food, peer-group, curriculum, co-curriculum, classroom teaching and evaluation with their academic achievement in Kannada, English, Hindi, Mathematics, Science, Social Studies and total academic achievement.

(vii) To investigate the relationship of various components of rural students adjustment problems – residence, food, peer-group, curriculum, co-curriculum, classroom teaching and evaluation with their academic achievement in Kannada, English, Hindi, Mathematics, Science, Social Studies and total academic achievement.
In pursuance of the General Objective- (ii) the following specific objectives were set up:

(viii) To determine the relative efficiency of adjustment problems-residence, food, peer-group, curriculum, co-curriculum, classroom teaching and evaluation- of students in predicting the academic achievement in Kannada.

(ix) To determine the relative efficiency of adjustment problems - residence, food, peer-group, curriculum, co-curriculum, classroom teaching and evaluation – of students in predicting the academic achievement in English.

(x) To determine the relative efficiency of adjustment problems - residence, food, peer-group, curriculum, co-curriculum, classroom teaching and evaluation – of students in predicting the academic achievement in Hindi.

(xi) To determine the relative efficiency of adjustment problems - residence, food, peer-group, curriculum, co-curriculum, classroom teaching and evaluation – of students in predicting the academic achievement in Mathematics.

(xii) To determine the relative efficiency of adjustment problems - residence, food, peer-group, curriculum, co-curriculum, classroom teaching and evaluation – of students in predicting the academic achievement in Science.

(xiii) To determine the relative efficiency of adjustment problems - residence, food, peer-group, curriculum, co-curriculum,
classroom teaching and evaluation – of students in predicting the academic achievement in Social Studies.

(xiv) To determine the relative efficiency of adjustment problems – residence, food, peer-group, curriculum, co-curriculum, classroom teaching and evaluation – of students in predicting total academic achievement.

In pursuance of the General Objective-(iii), the following specific objectives were set up:

(xv) To determine direct and indirect paths/effects of adjustment components on academic achievement in Kannada, English, Hindi, Mathematics, Science, Social Studies and total academic achievement in the entire sample.

(xvi) To determine direct and indirect paths/effects of adjustment components on academic achievement in Kannada, English, Hindi, Mathematics, Science, Social Studies and total academic achievement of boys.

(xvii) To determine direct and indirect paths/effects of adjustment components on academic achievement in Kannada, English, Hindi, Mathematics, Science, Social Studies and total academic achievement of girls.

(xviii) To determine direct and indirect paths/effects of adjustment components on academic achievement in Kannada, English, Hindi, Mathematics, Science, Social Studies and total academic achievement of urban students.
To determine direct and indirect paths/effects of adjustment components on academic achievement in Kannada, English, Hindi, Mathematics, Science, Social Studies and total academic achievement of rural students.

In pursuance of the General Objective-(iv), the following specific objectives were set up:

(xx) To identify the factors in both adjustment and academic achievement components when taken in linear combination in terms of their contributions to variation in total academic achievement using Principle Component Factor Analysis technique.

(xx) To identify the clusters in the adjustment components – residence, food, peer-group, curriculum, co-curriculum, classroom teaching and evaluation using Cluster Analysis technique.

6.5 Research Hypotheses

Keeping in view the specific objectives thirty five research hypotheses were set up:

6.6 Scope of the Study

1. The present study was confined to Morarji Desai Residential Schools located in Belgaum division, Karnataka State.

2. The study was further restricted to students studying in X Standard of MDRSs for two reasons:
(i) Students admitted to V Standard may require one or two years to adjust themselves to a greater extent with the new environment, and

(ii) Students newly admitted to V Standard may not be in a position to pinpoint their adjustment problems.

3. Academic adjustment of the students studying in MDRSs is influenced by various factors like personality, attitudes, achievement motivation, anxiety, study habits, self-concept, SES, child rearing practices, reading comprehension, listening comprehension, vocabulary, aspirations, intelligence, creativity, interpersonal relationship, classroom socio-emotional climate, interests, aptitude of the students, etc. However, the present study was confined only to certain adjustment components like residence, food, peer-group, curriculum, co-curriculum, classroom teaching and evaluation.

4. The question paper at the X Standard Public Examination is set by the Karnataka State Secondary Examination Board, Bangalore which is common to all students of MRDSs in Karnataka. In order to measure the dependent variable, i.e., academic achievement, the scores obtained by the students in the annual examination were taken. Hence, the study was confined to the X Standard students in MDRSs.

5. The curriculum at the X Standard in MRDS includes the school subjects like Kannada, English, Hindi, Mathematics, Science and Social Studies. The study covered the
academic achievement of the students in all the school subjects.

However, the present study is confined to Adjustment problems.

6.7 Design of the Study

6.7.1 Data Gathering Tools

(i) Talawar’s Adjustment Problem check-lists:

- RAPC (Residential Adjustment Problem Check-list)
- FAPC (Food Adjustment Problem Check-list)
- PAPC (Peer-group Adjustment Problem Check-list)

Table - 6.1 : Validity and Reliability of the Three Adjustment Problem Check-lists

(No. of Judges = 5; No. of Students = 50)

<table>
<thead>
<tr>
<th>Sl. No.</th>
<th>Check-list</th>
<th>Validity</th>
<th>Reliability</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>Content</td>
<td>Intrinsic</td>
</tr>
<tr>
<td>1.</td>
<td>Residence Adjustment Problem Check-list (RAPC)</td>
<td>Yes</td>
<td>0.853 to 0.877</td>
</tr>
<tr>
<td>2.</td>
<td>Food Adjustment Problem Check-list (FAPC)</td>
<td>Yes</td>
<td>0.742 to 0.755</td>
</tr>
<tr>
<td>3.</td>
<td>Peer-group Adjustment Problem Check-list (PAPC)</td>
<td>Yes</td>
<td>0.748 to 0.758</td>
</tr>
</tbody>
</table>
(ii) Adjustment Problem check-lists

- CAPC (Curriculum Adjustment Problem Check-list)
- CCAPC (Co-curriculum Adjustment Problem Check-list)
- CTAPC (Classroom Teaching Adjustment Problem Check-list)
- EAPC (Evaluation Adjustment Problem Check-list)

developed by the investigator.

<table>
<thead>
<tr>
<th>Sl. No.</th>
<th>Check-list</th>
<th>Validity</th>
<th>Reliability</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>Content</td>
<td>Intrinsic</td>
</tr>
<tr>
<td>1.</td>
<td>Curriculum Adjustment Problem Check-list (CAPC)</td>
<td>Yes</td>
<td>0.82 to 0.88</td>
</tr>
<tr>
<td>2.</td>
<td>Co-curriculum Adjustment Problem Check-list (CCAPC)</td>
<td>Yes</td>
<td>0.89 to 0.95</td>
</tr>
<tr>
<td>3.</td>
<td>Classroom Teaching Adjustment Problem Check-list (CTAPC)</td>
<td>Yes</td>
<td>0.73 to 0.91</td>
</tr>
<tr>
<td>4.</td>
<td>Evaluation Adjustment Problem Check-list (EAPC)</td>
<td>Yes</td>
<td>0.84 to 0.87</td>
</tr>
</tbody>
</table>

6.7.2 Sample

The different districts of the Belgaum division are represented by MDRSs involved in the study. In all 24 + 25 + 25 + 26 + 25 + 26 + 23 +
25 + 24 + 26 + 26 + 25 = 300 students constituted the sample for the present study. For selecting the candidates from each MDRSs, random sampling technique was used. Description of the sample involved in the study is given in the following table:

**Table – 6.3 : Description of the Sample (n = 300)**

<table>
<thead>
<tr>
<th>Sex</th>
<th>Locality</th>
</tr>
</thead>
<tbody>
<tr>
<td>Boys</td>
<td>Girls</td>
</tr>
<tr>
<td>190</td>
<td>110</td>
</tr>
<tr>
<td>Total</td>
<td>300</td>
</tr>
</tbody>
</table>

### 6.7.3 Collection of Data

The investigator personally visited to each MDRS in order to collect necessary data. Data relating to the adjustment problems of students to new climate prevailing in the MDRSs were collected by administering the seven adjustment problem check-lists – residence, food, peer-group, curriculum, co-curriculum, classroom teaching and evaluation to 300 students. The first four check-lists were administered on the first day and the remaining three on the second day. The investigator has spent on an average two days in each MDRS.

After the annual examination, the students’ achievement scores in all the school subjects were collected from the school records and were converted into ‘t’ scores. The raw scores of the adjustment problems, the ‘t’ scores of academic achievement (individual subject scores) and total
academic achievement scores were converted into equally weighed scores using the following formula:

\[
\text{Equally weighed score} = \frac{\text{Obtained Score}}{\text{Maximum Score}} \times 100
\]

6.7.4 Statistical Techniques Used

In pursuance of the General Objective-(i), the Pearson's Product-Moment Coefficient of Correlation technique was used to find out the relationship between predictor variables and criterion variable. Further, the obtained 'r' values were tested for significance using 't' test.

In pursuance of the General objective-(ii) the Multiple Regression Analysis (step down) was used with the different independent variables fitted into a regression equation when dependent variables are not related. This provided an indication about the relative potency of variables under consideration. The relative contribution of the independent factors to the criterion variable was calculated by multiplying regression coefficients with the correlation coefficients and converting the same into percentages.

In pursuance of the General Objective-(iii) the Path Analysis was used in order to calculate the direct and indirect effects of independent variables on dependent variables.
In pursuance of the General Objectives-(iv) the Principle Component Factor Analysis was used with a view to find out the combination that accounts for maximum variation when all the variables are in the linear combination with each one as distinct identify by itself. Further, the Cluster Analysis technique was used to identify the clusters among the adjustment components — residence, food, peer-group, curriculum, co-curriculum, classroom teaching and evaluation.

6.8 Major Findings

Simple Correlations

1. The ‘residence adjustment problems’ have significant relationship with academic achievement in Kannada, Hindi, Science, Social Studies and total academic achievement.

2. The ‘peer-group adjustment problems’ have significant relationship with academic achievement in Kannada, English, Hindi, Mathematics, Science, Social Studies and total academic achievement.

3. The ‘curriculum adjustment problems’ have significant relationship with Kannada, English, Hindi, Science and Social Studies.

4. The ‘classroom teaching adjustment problems’ have significant relationship with Kannada, English, Hindi, Mathematics, Science, Social Studies and total academic achievement.
5. The 'evaluation adjustment problems' have significant relationship with Kannada, English, Hindi, Mathematics, Science, Social Studies and total academic achievement.

6. The 'residence adjustment problems' of boys have significant relationship with Kannada, Hindi, Science, Social Studies and total academic achievement.

7. The 'peer-group adjustment problems' of boys have significant relationship with Kannada, English, Hindi, Mathematics, Science, Social Studies and total academic achievement.

8. The 'curriculum adjustment problems' of boys have significant relationship with Kannada, English, Hindi, Mathematics, Science, Social Studies and total academic achievement.

9. The 'classroom teaching adjustment problems' of boys have significant relationship with Kannada, English, Hindi, Mathematics, Science, Social Studies and total academic achievement.

10. The 'evaluation adjustment problems' of boys have significant relationship with Kannada, English, Hindi, Mathematics, Science, Social Studies and total academic achievement.

11. The 'residence adjustment problems' of girls have significant relationship with Kannada, English, Hindi, Mathematics, Science, Social Studies and total academic achievement.
12. The 'food adjustment problems' of girls have significant relationship with total academic achievement.

13. The 'peer-group adjustment problems' of girls have significant relationship with Kannada, English, Hindi, Mathematics, Social Studies and total academic achievement.

14. The 'curriculum adjustment problems' of girls have significant relationship with Science.

15. The 'classroom teaching adjustment problems' of girls have significant relationship with Kannada, Hindi, Mathematics and Social Studies.

16. The 'evaluation adjustment problems' of girls have significant relationship with English, and total academic achievement.

17. The 'residence adjustment problems of urban students have significant relationship with Kannada, English, Mathematics, Science and total academic achievement.

18. The 'food adjustment problems' of urban students have significant relationship with Kannada, Mathematics, and Science.

19. The 'peer-group adjustment problems' of urban students have significant relationship with English, Social Studies and total academic achievement.
20. The 'curriculum adjustment problems' of urban students have significant relationship with Hindi and total academic achievement.

21. The 'classroom teaching adjustment problems' of urban students have significant relationship with Hindi, Mathematics, Social Studies and total academic achievement.

22. The 'evaluation adjustment problems' of urban students have significant relationship with English, Hindi, Mathematics and Science.

23. The 'residence adjustment problems' of rural students have significant relationship with Kannada and total academic achievement.

24. The 'food adjustment problems' of rural students have significant relationship with English and total academic achievement.

25. The 'peer-group adjustment problems' of rural students have significant relationship with Kannada, English, and total academic achievement.

26. The 'curriculum adjustment problems' of rural students have significant relationship with Kannada, English, Hindi, Mathematics, Science, Social Studies and total academic achievement.

27. The 'classroom teaching adjustment problems' of rural students have significant relationship with Kannada,
English, Hindi, Mathematics, and total academic achievement.

28. The 'evaluation adjustment problems' of rural students have significant relationship with Kannada, English, Hindi, Mathematics, and total academic achievement.

Multiple Regression Analysis

29. The 'classroom teaching adjustment problems' seems to be the best predictor of all the variables. The next best predictors of total adjustment of MDRS students in the order of priority are FAPC, PAPC, CAPC, CCAPC, EAPC and RAPC respectively.

30. The 'peer-group adjustment problems' seems to be the best predictor of academic achievement in Kannada as compared to RAPC.

31. The 'residence adjustment problems' seems to be the best predictor of academic achievement in English of MDRS students. The next best predictors in the order of priority are RAPC, CCAPC, EAPC and CTAPC respectively.

32. The 'residence adjustment problems' seems to be the best predictor of academic achievement in Hindi of MDRS students. The next best predictors in the order of priority are CTAPC, EAPC, PAPC and CAPC respectively.

33. The 'classroom teaching adjustment problems' seems to be the best predictor of academic achievement in Mathematics as compared to EAPC.
34. The 'curriculum adjustment problems seems to be the best predictor of academic achievement in Science of MDRS students. The next best predictors in the order of priority are CAPC, RAPC and EAPC respectively.

35. The 'food adjustment problems' seems to be the best predictor of academic achievement in Social Studies of MDRS students. The next best predictors in the order of priority are FAPC, RAPC and CCAPC respectively.

36. The 'curriculum adjustment problems' seems to be the best predictor of total academic achievement of MDRS students. The next best predictors in the order of priority are CAPC, RAPC, CTAPC, PAPC and EAPC respectively.

Path Analysis

37. The 'residence adjustment problems' and 'classroom teaching adjustment problems' have significant negative direct effects and 'peer-group adjustment problems', 'curriculum adjustment problems' and 'evaluation adjustment problems' have significant positive direct effects on academic achievement in Kannada.

38. RAPC through PAPC, FAPC through RAPC, CAPC and FAPC, PAPC through RAPC, CAPC through CTAPC, CCAPC through PAPC and EAPC, CTAPC through CAPC and EAPC have significant indirect effects on academic achievement in Kannada.

39. The 'classroom teaching adjustment problems' have significant negative direct effects and 'residence
adjustment problems', 'peer-group adjustment problems' and 'evaluation adjustment problems' have significant positive direct effects on academic achievement in English.

40. RAPC through PAPC, FAPC through EAPC, CAPC through CTAPC, CCAPC, through PAPC and EAPC, CTAPC through EAPC have significant indirect effects on academic achievement in English.

41. The 'residence adjustment problems', 'classroom teaching adjustment problems' and 'evaluation adjustment problems' have significant negative direct effects and 'peer-group adjustment problems' and 'curriculum adjustment problems' have significant positive direct effects on academic achievement in Hindi.

42. RAPC through PAPC, FAPC through RAPC, CAPC and EAPC, PAPC through RAPC, CAPC through CTAPC, CCAPC through PAPC and EAPC, CTAPC through CAPC and EAPC have significant indirect effects on academic achievement in Hindi.

43. The 'classroom teaching adjustment problems' have significant negative direct effects and 'peer-group adjustment problems', 'curriculum adjustment problems' and 'evaluation adjustment problems' have significant positive direct effects on academic achievement in Mathematics.

44. RAPC through PAPC, FAPC through CAPC and EAPC, CAPC through CTAPC, CCAPC through PAPC and EAPC,
CTAPC through CAPC and EAPC have significant indirect effects on academic achievement in Mathematics.

45. The 'residence adjustment problems', 'curriculum adjustment problems' and 'classroom teaching adjustment problems' have significant negative, direct effects and 'peer-group adjustment problems' and 'evaluation adjustment problems' have positive direct effects on academic achievement in Science.

46. RAPC through PAPC, FAPC through RAPC, CAPC and EAPC, PAPC through RAPC and CTAPC, CAPC through CTAPC and EAPC, CCAPC through PAPC and EAPC, CTAPC through CAPC and EAPC have significant indirect effects on academic achievement in Science.

47. The 'peer-group adjustment problems, curriculum adjustment problems', 'co-curriculum adjustment problems' and 'evaluation adjustment problems' have significant negative direct effects and 'residence adjustment problems' and 'classroom teaching adjustment problems' have significant positive direct effects on academic achievement in Social Studies.

48. RAPC through FAPC and PAPC, FAPC through RAPC, PAPC, CAPC and EAPC, PAPC through RAPC, CAPC through CTAPC, CCAPC through PAPC and EAPC and CTAPC through CAPC and EAPC have significant indirect effects on academic achievement in Social Studies.

49. The 'residence adjustment problems' and 'classroom teaching adjustment problems' have significant negative
direct effects and 'peer-group adjustment problems' and 'evaluation adjustment problems' have significant positive direct effects on total academic achievement.

50. RAPC through PAPC, FAPC through RAPC and EAPC, PAPC through RAPC, CAPC through CTAPC, CCAPC through PAPC and EAPC and CTAPC through EAPC have significant indirect effects on total academic achievement.

51. The 'residence adjustment problems', 'classroom teaching adjustment problems' and 'evaluation adjustment problems' have significant negative direct effects and 'peer-group adjustment problems' and 'curriculum adjustment problems' have significant positive direct effects on academic achievement of boys in Kannada.

52. RAPC through PAPC, FAPC through RAPC, PAPC through RAPC, CAPC through CTAPC, CCAPC through PAPC and CTAPC. CTAPC through CAPC and EAPC through CTAPC have significant indirect effects on academic achievement of boys in Kannada.

53. The 'co-curriculum adjustment problems' have significant negative direct effects and 'peer-group adjustment problems', 'curriculum adjustment problems' and 'evaluation adjustment problems' have significant positive direct effects on academic achievement of boys in English.

54. RAPC through PAPC, CAPC through CTAPC, CCAPC through PAPC and CTAPC, CTAPC through CAPC and FAPC through CTAPC have significant indirect effects on academic achievement of boys in English.
55. The 'residence adjustment problems', 'classroom teaching adjustment problems' and 'evaluation adjustment problems' have significant negative direct effects and 'peer-group adjustment problems' have significant positive direct effects on academic achievement of boys in Hindi.

56. RAPC through PAPC, FAPC through RAPC and EAPC, PAPC through RAPC, CAPC through CTAPC, CCAPC through PAPC and EAPC, and EAPC through CTAPC have significant indirect effects on academic achievement of boys in Hindi.

57. The 'classroom teaching adjustment problems' have significant negative direct effects and 'peer-group adjustment problems', 'curriculum adjustment problems' and 'evaluation adjustment problems' have significant positive direct effects on academic achievement of boys in Mathematics.

58. RAPC through PAPC, FAPC through EAPC, CAPC through CTAPC, CCAPC through PAPC, CTAPC and EAPC, CTAPC through CAPC, CCAPC and EAPC, EAPC through CTAPC have significant indirect effects on academic achievement of boys in Mathematics.

59. The 'residence adjustment problems' and 'classroom teaching adjustment problems' have significant negative direct effects and 'peer-group adjustment problems' and 'curriculum adjustment problems' have significant
positive direct effects on academic achievement of boys in Science.

60. RAPC through PAPC, FAPC through RAPC and EAPC, PAPC through RAPC, CAPC through CTAPC, CCCAPC through PAPC, CTAPC and EAPC, CTAPC through EAPC and EAPC through CTAPC have significant indirect effects on academic achievement of boys in Science.

61. The 'curriculum adjustment problems' and 'evaluation adjustment problems' have significant negative direct effects and 'residence adjustment problems, 'peer-group adjustment problems' and 'classroom teaching adjustment problems' have significant positive direct effects on academic achievement of boys in Social Studies.

62. RAPC through PAPC, FAPC through RAPC and EAPC, PAPC through RAPC, CAPC through CTAPC, CCCAPC through PAPC, CTAPC and EAPC, CTAPC through CAPC and EAPC through CTAPC have significant indirect effects on academic achievement of boys in Social Studies.

63. The 'residence adjustment problems' have significant negative direct effects and 'peer-group adjustment problems', 'curriculum adjustment problems' and 'classroom teaching adjustment problems' have significant positive direct effects on total academic achievement of boys.
64. RAPC through PAPC, CAPC through CTAPC, CCAPC through PAPC and CTAPC, CTAPC through CAPC and EAPC through CTAPC have significant indirect effects on total academic achievement of boys.

65. The 'residence adjustment problems' and 'classroom teaching adjustment problems' have significant negative direct effects and 'peer-group adjustment problems' have significant positive direct effects on academic achievement of girls in Kannada.

66. RAPC through PAPC, PAPC through RAPC, CAPC through EAPC, CCAPC through PAPC, CTAPC through EAPC and EAPC through RAPC have significant indirect effects on academic achievement of girls in Kannada.

67. The 'residence adjustment problems' and peer-group adjustment problems' have significant negative direct effects and 'classroom teaching adjustment problems' have significant positive direct effects on academic achievement of girls in English.

68. RAPC through PAPC, FAPC through RAPC, CAPC through CTAPC, CCAPC through PAPC, and EAPC through RAPC and CTAPC have significant indirect effects on academic achievement of girls in English.

69. The 'peer-group adjustment problems' have significant negative direct effects and 'residence adjustment problems', and 'evaluation adjustment problems' have significant positive direct effects on academic achievement of girls in Hindi.
70. RAPC through PAPC and EAPC, FAPC through RAPC and EAPC, CCAPC through PAPC and EAPC, CTAPC through EAPC have significant indirect effects on academic achievement of girls in Hindi.

71. The 'residence adjustment problems' and 'classroom teaching adjustment problems' have significant negative direct effects and 'peer-group adjustment problems' have significant positive direct effects on academic achievement, of girls in Mathematics.

72. RAPC through PAPC and EAPC, FAPC through RAPC and EAPC, CAPC through CTAPC, CCAPC through PAPC and EAPC, CTAPC through EAPC and EAPC through RAPC and CTAPC have significant indirect effects on academic achievement of girls in Mathematics.

73. The 'residence adjustment problems' and 'curriculum adjustment problems' have significant negative direct effects on academic achievement of girls in Science.

74. RAPC through EAPC, FAPC through RAPC and EAPC, CCAPC through EAPC, CTAPC through CAPC and EAPC and EAPC through RAPC have significant indirect effects on academic achievement of girls in Science.

75. The 'peer-group adjustment problems' have significant negative direct effect and 'residence adjustment problems' and 'classroom teaching adjustment problems' have significant positive direct effects on academic achievement of girls in Social Studies.
76. RAPC through PAPC, FAPC through RAPC, PAPC through CCAPC, CAPC through CTAPC, CCAPC through PAPC and EAPC through RAPC, CCAPC and CTAPC have significant indirect effects on academic achievement of girls in Social Studies.

77. The 'residence adjustment problems' and the 'peer-group adjustment problems' have significant negative direct effects and 'food adjustment problems' and 'evaluation adjustment problems' have significant positive direct effects on total academic achievement of girls.

78. RAPC through PAPC and EAPC, FAPC through RAPC and EAPC, PAPC through CCAPC, CCAPC through PAPC and EAPC, CTAPC through EAPC and EAPC through RAPC, FAPC and CCAPC have significant indirect effects on total academic achievement of girls.

79. The 'residence adjustment problems' and 'food adjustment problems' have significant negative direct effects on academic achievement of urban students in Kannada.

80. RAPC through PAPC and CCAPC, PAPC through RAPC and CCAPC, CAPC through PAPC and CTAPC, CCAPC through RAPC, PAPC and CTAPC through CAPC and CCAPC and EAPC through CCAPC and CTAPC have significant indirect effects on academic achievement of urban students in Kannada.

81. The 'residence adjustment problems' have significant negative direct effect and 'peer-group adjustment
problems' and 'evaluation adjustment problems' have significant positive direct effects on academic achievement of urban students in English.

82. RAPC through PAPC and CCAPC, PAPC through RAPC and CCAPC, CAPC through PAPC and CTAPC, CCAPC through RAPC, PAPC and CTAPC, CTAPC through CAPC, CCAPC and EAPC. EAPC through CCAPC and CTAPC have significant indirect effects on academic achievement of urban students in English.

83. The 'classroom teaching adjustment problems' have significant negative direct effect and 'curriculum adjustment problems' and 'evaluation adjustment problems' have significant positive direct effects on academic achievement of urban students in Hindi.

84. RAPC through PAPC and CCAPC, PAPC through CCAPC, CAPC through PAPC and CTAPC, CAPC through PAPC and CTAPC, CCAPC through PAPC, CTAPC and EAPC, CTAPC through CAPC, CCAPC and EAPC and EAPC through CCAPC and CTAPC have significant indirect effects on academic achievement of urban students in Hindi.

85. The 'residence adjustment problems' have significant negative direct effect and 'food adjustment problems', 'classroom teaching adjustment problems' and 'evaluation adjustment problems' have significant positive direct effects on academic achievement of urban students in Mathematics.
86. RAPC through PAPC, PAPC through RAPC, CAPC through PAPC and CTAPC. CCAPC through RAPC, PAPC, CTAPC and EAPC, CTAPC through CCAPC and EAPC and EAPC through CTAPC have significant indirect effects on academic achievement of urban students in Mathematics.

87. The 'residence adjustment problems' have significant negative direct effect and 'food adjustment problems' have significant positive direct effect on academic achievement of urban students in Science.

88. RAPC through PAPC and CCAPC, PAPC through RAPC and CCAPC, CAPC through PAPC and CTAPC, CCAPC through RAPC, PAPC, CTAPC and EAPC, CTAPC through CAPC, CCAPC and EAPC and EAPC through CCAPC and CTAPC have significant indirect effects on academic achievement of urban students in Science.

89. The 'classroom teaching adjustment problems' have significant negative direct effect and 'peer-group adjustment problems' have significant positive direct effect on academic achievement of urban students in Social Studies.

90. RAPC through PAPC, CCAPC and CTAPC, PAPC through CCAPC, CAPC through PAPC and CTAPC, CCAPC through PAPC, CTAPC and EAPC, CTAPC through CAPC, CCAPC and EAPC and EAPC through CCAPC and CTAPC have significant indirect effects on academic achievement of urban students in Social Studies.
91. The 'co-curriculum adjustment problems' and 'classroom teaching adjustment problems' have significant negative direct effects and 'peer-group adjustment problems' and 'curriculum adjustment problems' have significant positive direct effects on total academic achievement of urban students.

92. RAPC through PAPC and EAPC, PAPC through RAPC and CCAPC, CAPC through PAPC and CTAPC, CCAPC through RAPC, PAPC, CTAPC and EAPC, CTAPC through CAPC, CCAPC and EAPC and EAPC through CCAPC and CTAPC have significant indirect effects on total academic achievement of urban students.

93. The 'residence adjustment problems', 'curriculum adjustment problems' and 'classroom teaching adjustment problems' have significant negative direct effects and 'peer-group adjustment problems' and 'evaluation adjustment problems' have significant positive direct effect on academic achievement of rural students in Kannada.

94. RAPC through PAPC and EAPC, PAPC through RAPC, CAPC and EAPC, PAPC through RAPC, CTAPC and EAPC, CAPC through CTAPC, CCAPC through PAPC, CTAPC and EAPC, CTAPC through PAPC, CAPC and EAPC and EAPC through PAPC and CTAPC have significant indirect effects on academic achievement of rural students in Kannada.

95. The 'food adjustment problems' and 'curriculum adjustment problems' have significant negative direct effects and 'peer-group adjustment problems', 'classroom
teaching adjustment problems' and 'evaluation adjustment problems' have significant positive direct effects on academic achievement of rural students in English.

96. RAPC through FAPC, PAPC and EAPC, FAPC through RAPC, CAPC and EAPC, PAPC through RAPC, CTAPC and EAPC, CAPC through FAPC and CTAPC, CCAPC through PAPC, CTAPC and EAPC, CTAPC through PAPC, CAPC and EAPC and EAPC through EAPC, PAPC and CTAPC have significant indirect effects on academic achievement of rural students in English.

97. The 'curriculum adjustment problems' have significant negative direct effect and 'classroom teaching adjustment problems' and 'evaluation adjustment problems' have significant positive direct effect on academic achievement of rural students in Hindi.

98. RAPC through EAPC, FAPC through RAPC, CAPC and EAPC, PAPC through RAPC, CTAPC and EAPC, CAPC through CTAPC, CCAPC through CTAPC and EAPC, CTAPC through CAPC and EAPC and EAPC through CTAPC have significant indirect effects on academic achievement of rural students in Hindi.

99. The 'curriculum adjustment problems' and 'classroom teaching adjustment problems' have significant negative direct effects and 'evaluation adjustment problems' have significant positive direct effect on academic achievement of rural students in Mathematics.
100. RAPC through EAPC, FAPC through CAPC and EAPC, PAPC through CTAPC and EAPC, CAPC through CTAPC, CCAPC through CTAPC and EAPC, CTAPC through CAPC and EAPC and EAPC through CTAPC have significant indirect effects on academic achievement of rural students in Mathematics.

101. The 'curriculum adjustment problems' have significant negative direct effect on academic achievement of rural students in Science.

102. RAPC through EAPC, FAPC through RAPC, CAPC and EAPC, PAPC through RAPC and EAPC, CCAPC through EAPC, CTAPC through CAPC and EAPC have significant indirect effects on academic achievement of rural students in Science.

103. The 'curriculum adjustment problems' have significant negative direct effect on academic achievement of rural students in Social Studies.

104. RAPC through FAPC and EAPC, FAPC through RAPC, CAPC and EAPC, PAPC through RAPC, CCAPC and CTAPC, CAPC through FAPC, CTAPC and EAPC, CCAPC through CTAPC and EAPC, CTAPC through CAPC, CCAPC through CTAPC and EAPC, CTAPC through CAPC and EAPC through CTAPC, CCAPC and EAPC and EAPC through FAPC, CCAPC and CTAPC have significant indirect effects on academic achievement of rural students in Social Studies.

105. The 'residence adjustment problems', 'food adjustment problems' and 'curriculum adjustment problems' have significant negative direct effects and 'peer-group
adjustment problems’, ‘classroom teaching adjustment problems’ and ‘evaluation adjustment problems’ have significant positive direct effect on total academic achievement of rural students.

106. RAPC through PAPC and EAPC, FAPC through CAPC and EAPC, PAPC through CTAPC and EAPC, CAPC through CTAPC, CCAPC through PAPC, CTAPC and EAPC, CTAPC through PAPC, CAPC and EAPC and EAPC through PAPC and CTAPC have significant indirect effects on total academic achievement of rural students.

**Principle Component Factors Analysis**

107. Academic performance in Kannada, English, Hindi, Mathematics, Science and Social Studies in MDRSs have been clustered under a single group with high factor loading. This implies that academic subjects taught in MDRSs play a major role in the overall academic success of the students.

108. The ‘curriculum adjustment’, ‘co-curriculum adjustment’, ‘classroom teaching adjustment’ and ‘evaluation adjustment’ in MDRSs have been clustered under a single group with high factor loading. This implies that MDRSs being residential schools, academic adjustment play a major role in the overall academic success of the students.

109. Contributors of personal adjustment, viz., ‘residence adjustment’, ‘food adjustment’ and ‘peer-group adjustment’ have been clustered under a single group
with high factor loading which forms third factor. This shows that MDRSs being residential schools are not congenial from the point of view of residence, food and peer-group interaction. This needs to be taken into account seriously and remedied as early as possible.

**Cluster Analysis**

110. Two clusters appear to emerge safely as indicators of components of adjustment of students in MDRSs. They are: (i) academic adjustment, and (ii) personal adjustment. This leads to one of logical inference that in influencing on the academic achievement of students studying in MDRSs the ‘academic’ aspects like curriculum, co-curriculum, classroom teaching and evaluation are more important than their adjustment with the ‘personal’ aspects like residence, food and peer-group adjustments.

**6.9 Discussion**

From the results obtained in the present study, it was found that there is a negative and significant relationship as well as a positive and significant relationship between adjustment problems and academic achievement. The negative relationship among certain variables is due to the correlation between adjustment problems scores and achievement scores. Study conducted by Semler (1980) reported a linear relationship between adjustment scores and achievement scores. This may be due to
the correlation between adjustment and achievement scores directly. Sondefur, et al. (1986) also found the inverse relationship between the number of adjustment problems and achievement scores. This inverse relationship may be due to the correlation between the number of adjustment problem scores and achievement scores. This finding is in direct concurrence with the findings of the present study. The results obtained by other investigators, viz., Sontakey (1975), Chen, et al. (1997) and Tamlinson (1998) are in line with the findings of the present study.

Some of the Indian Studies, viz., Mathur (1963), Srivastav (1967), Dhaliwal (1971), Sharma (1972), Rai (1974), Mathew (1976), Chopra (1982), Mehrotra (1986), Srivastava (1992), Rajmanikam and Vasanthal (1993) and Rengali (1993) showed that there is a significant positive relationship between adjustment and academic achievement. The results of all these studies support the findings of the present study. In addition, the study by Ramachandran (1991) revealed a similar conclusion that adjustment problems found to be negatively associated with academic achievement. The negative correlation may be due to the problems scores of the adjustment and the academic achievement scores. These two scores are inversely proportional. Hence, there is a negative and significant correlation with academic achievement. This finding is in direct concurrence with the findings of the present study.
However, outcomes of the few studies, Seetha (1975) and Joshi (1990) contradict with the findings of the present study. Since, majority of the studies conducted in India and abroad stand in support of the findings of the present study, the outcome of this study may be accepted at large scale.

Further, in the present study it is found that, among all the predictor variables affecting total academic achievement, total adjustment scores accounts for little variation in the academic achievement of MDRS students, as compared to the other potential predictors of total academic achievement. This implies that adjustment problem has indirect positive impact on academic achievement. In the recent studies conducted by Chen et al. (1997) and Tamlinson (1998), it is noticed that children's social and academic adjustment contributed to academic achievement.

Some of the Indian studies, viz., Rao (1964), Sinha (1966), Chawla (1970), Sharma (1972) and Mathew (1976) reported that over and under achievement groups differ significantly on their adjustment. Hiregange (1970) found that socio-emotional adjustment was also a best predictor of academic success. Saxena (1972) investigated that the over achieving students had consistently and significantly lower number of adjustment problems in the various areas measured than the under-achiever. This shows that adjustment problems of the students in schools will affect
their academic achievement. These findings are in line with the findings of the present study.

As almost all the studies conducted in India and abroad support directly or indirectly the findings of the present study, the outcome of the study may be accepted widely.

6.10 Conclusions

Based on the discussion of findings of the study the following conclusions could be drawn.

Relationship Between Adjustment and Academic Achievement

1. The 'resident adjustment problems' of students studying in MDRSs have negative and significant relationship with academic achievement of students in Kannada, Hindi, Science, Social Studies and total academic achievement.

2. The 'food adjustment problems' of students studying in MDRSs have negative and no significant relationship with academic achievement in all the school subjects.

3. The 'peer-group adjustment problems' of students studying in MDRSs have negative and significant relationship with academic achievement of students in Kannada, English, Hindi, Science, Social Studies and total academic achievements.
4. The 'curriculum adjustment problems' of students studying in MDRSs have negative and significant relationship with academic achievement of students in Kannada, English, Hindi, Mathematics, Science, and Social Studies. However, its relationship with total academic achievement is not significant.

5. The 'co-curriculum adjustment problems' of students studying in MDRSs have negative and not significant relationship with academic achievement of students in all the school subjects.

6. The 'classroom teaching problems' of students studying in MDRSs have negative and significant relationship with academic achievement of students in Kannada, English, Hindi, Mathematics, Science, Social Studies and total academic achievement.

7. The 'evaluation adjustment problems' of students studying in MDRSs have negative and significant relationship with academic achievement of students in Kannada, English, Hindi, Mathematics, Science, Social Studies and total academic achievement.

**Predictor of Criterion Variables**

8. The 'residence adjustment problem' is the best potential predictor among the seven predictor variables of academic achievement in English as well as Hindi of MDRS students.
9. The ‘food adjustment problem’ is the best potential predictor among seven predictor variables of academic achievement in Social Studies of MDRS students.

10. The ‘peer-group adjustment problem’ is the best potential predictor among seven predictor variables of academic achievement in Kannada of MDRS students.

11. The ‘curriculum adjustment problem’ is the best potential predictor among seven predictor variables of academic achievement in Science and total academic achievement of MDRS students.

12. The ‘co-curriculum adjustment problem’ is a second potential predictor of academic achievement in English and a third potential predictor of academic achievement in Social Studies among the seven predictor variables.

13. The ‘classroom teaching adjustment problem’ is a fourth potential predictor variable of academic achievement in English, second potential predictor of academic achievement in Hindi and third potential predictor variable of total academic achievement among the seven predictor variables.

14. The ‘evaluation adjustment problem’ is a third potential predictor of academic achievement in English as well as in Hindi, a second potential predictor of academic achievement in Mathematics, a third potential predictor of academic achievement in Science and a fifth potential predictor of total academic achievement among the seven predictor variables.
Direct and Indirect Effects

Entire Sample

15. The 'residence adjustment problem' has a significant negative direct effect on academic achievement in Kannada, Hindi, Science, and total academic achievement and has significant positive direct effect on academic achievement in English and Social Studies.

16. The 'food adjustment problem' has no significant direct effect on academic achievement of students in all the school subjects.

17. The 'peer-group adjustment problem' has a significant negative direct effect on academic achievement in Social Studies and has significant positive direct effect on academic achievement in Kannada, English, Hindi, Mathematics, Science and total academic achievement.

18. The 'curriculum adjustment problem' has a significant negative direct effect on academic achievement in Science, and Social Studies and has a significant positive direct effect on academic achievement in Kannada, Hindi, and Mathematics.

19. The 'co-curriculum adjustment problem' has a significant negative direct effect only on academic achievement in Social Studies.

20. The 'classroom teaching adjustment problem' has a significant negative direct effect on academic achievement
in Kannada, English, Hindi, Mathematics, Science, and total academic achievement and has a significant positive direct effect on academic achievement in Social Studies.

21. The 'evaluation adjustment problem' has a significant negative direct effect on academic achievement in Hindi and Social Studies and has a significant positive direct effect on academic achievement in Kannada, English, Mathematics, and total academic achievement.

**Boys**

22. The 'residence adjustment problem' has a significant negative direct effect on academic achievement of boys in Kannada, Hindi, Science, and total academic achievement and has significant positive direct effect on academic achievement of boys in Social Studies.

23. The 'food adjustment problem' has no significant direct effect on academic achievement of boys in all the school subjects.

24. The 'peer-group adjustment problem' has a significant positive direct effect on academic achievement of boys in Kannada, English, Hindi, Mathematics, Science, and total academic achievement.

25. The 'curriculum adjustment problem' has a significant negative direct effect on academic achievement of boys in Social Studies and has significant positive direct effect on academic achievement in Kannada, English, Mathematics, Science, and total academic achievement.
26. The 'co-curriculum adjustment problem' has a significant negative direct effect only on academic achievement of boys in English.

27. The 'classroom teaching adjustment problem' has a significant negative direct effect on academic achievement of boys in Kannada, Hindi, Mathematics and Science, and has significant positive direct effect on academic achievement of Boys in Social Studies and total academic achievement.

28. The 'evaluation adjustment problem' has a significant negative direct effect on academic achievement of boys in Kannada, Hind, and Social Studies and has a significant positive direct effect on academic achievement of boys in English and Mathematics.

**Girls**

29. The 'residence adjustment problem' has a significant negative direct effect on academic achievement of girls in Kannada, English, Mathematics, Science, and total academic achievement and has significant positive direct effect on academic achievement of girls in Hindi and Social Studies.

30. The 'food adjustment problem' has no significant direct effect on academic achievement of girls in total academic achievement.

31. The 'peer-group adjustment problem' has a significant negative direct effect on academic achievement of girls in English, Hindi, Social Studies and total academic
achievement and has a significant positive direct effect on academic achievement of girls in Kannada and Mathematics.

32. The 'curriculum adjustment problem' has a significant negative direct effect on academic achievement of girls in Science.

33. The 'co-curriculum adjustment problem' has no significant negative direct effect only on academic achievement of girls in all the school subjects.

34. The 'classroom teaching adjustment problem' has a significant negative direct effect on academic achievement of girls in Kannada and Mathematics, and has a significant positive direct effect on academic achievement of girls in English and Social Studies.

35. The 'evaluation adjustment problem' has a significant negative direct effect on academic achievement of girls in Hindi and total academic achievement.

Urban Students

36. The 'residence adjustment problem' has a significant negative direct effect on academic achievement of urban students in Kannada, English, Mathematics and Science.

37. The 'food adjustment problem' has a significant direct effect on academic achievement of urban students in Kannada and has a significant positive direct effect on academic achievement of urban students in Mathematics and Science.
38. The 'peer-group adjustment problem' has a significant positive direct effect on academic achievement of urban students in English, Social Studies and total academic achievement.

39. The 'curriculum adjustment problem' has a significant positive direct effect on academic achievement of urban students in Hindi and total academic achievement.

40. The 'co-curriculum adjustment problem' has a significant negative direct effect on academic achievement of urban students in total academic achievement.

41. The 'classroom teaching adjustment problem' has a significant negative direct effect on academic achievement of urban students in Hindi, Social Studies and total academic achievement and has a significant positive direct effect on academic achievement of urban students in Mathematics.

42. The 'evaluation adjustment problem' has a significant negative direct effect on academic achievement of urban students in English and Hindi.

**Rural Students**

43. The 'residence adjustment problem' has a significant negative direct effect on academic achievement of rural students in Kannada and total academic achievement.
44. The 'food adjustment problem' has a significant negative direct effect on academic achievement of rural students in English and total academic achievement.

45. The 'peer-group adjustment problem' has a significant positive direct effect on academic achievement of rural students in Kannada, English and total academic achievement.

46. The 'curriculum adjustment problem' has a significant negative direct effect on academic achievement of rural students in Kannada, English, Hindi, Mathematics, Science, Social Studies and total academic achievement.

47. The 'co-curriculum adjustment problem' has no significant direct effect on academic achievement of rural students in all the school subjects.

48. The 'classroom teaching adjustment problem' has a significant negative direct effect on academic achievement of rural students in Kannada and Mathematics, and has a significant positive direct effect on academic achievement of rural students in English, Hindi and total academic achievement.

49. The 'evaluation adjustment problem' has a significant positive direct effect on academic achievement of rural students in Kannada, English, Hindi, Mathematics and total academic achievement.
**Principle Component Factor Analysis**

50. Academic performance in Kannada, English, Hindi, Mathematics, Science and Social Studies are clustered together. Thus, academic subjects taught in MDRSs play a major role in the overall success of students in MDRSs.

51. The curriculum adjustment, co-curriculum adjustment, classroom teaching adjustment and evaluation adjustment in MDRSs are clustered under a single group. Thus, MDRSs being residential schools, academic adjustment play a major role in the overall academic success of the students.

52. Contributors of personal adjustment, viz., residence adjustment, food adjustment and peer-group adjustment are clustered under a single group. Thus, MDRSs being residential schools are not congenial from the point of view of residence, food and peer-group interaction.

**Clusters in Adjustment**

As indicators of components of adjustment two clusters, namely, academic adjustment and personal adjustment appear to emerge. Further, it was inferred that in influencing on academic achievement, the adjustment of the MDRSs to the curriculum, co-curriculum, classroom teaching and evaluation is primary than their adjustment with the residence, food and peer-group.
6.11 Educational Implications

The findings of the present study have important implications for education of students studying in Morarji Desai Residential Schools (MDRSs) in Karnataka. The following measures are suggested to improve the adjustment level of students to the climate prevailing in MDRSs. The components-wise suggestions are given below:

(i) Residence Adjustment

The causes of residence adjustment problems ultimately have their roots in the nature of students and the culture of their families. Students be oriented to the life style in the MDRSs. They should be sufficiently guided in understanding this new climate. Problems arising out of the deviations from the expected behaviour be settled through cordial discussions with the house-master/mistress.

House-master/mistress be oriented in child-psychology and healthy ways of treating unwanted behaviour of students. Students be made to understand the educational significance of collective living and cooperative learning in dormitories. These will help in improving students’ residential adjustment.
(ii) **Food Adjustment**

The causes of food adjustment problems are rooted in the issues such as repeated supply of same food/tiffin; lack of cleanliness in the mess as well as on the part of cooks themselves; serving of improperly boiled food items; misconception of students regarding different kinds of food items; lack of table mannerisms among the students; individual food habits vary, etc.

Thus, supply of varied kinds of food/tiffin of good quality; maintaining cleanliness in the mess as well as on the part of cooks themselves; serving properly boiled food items; developing correct understanding regarding 'balanced diet' and nutritive values of different kinds of food items; gradual introduction of common food with due respect to individual differences, etc., will help students to improve their food adjustment with particular reference to the allergy to the food served in the MDRSs mess.

(iii) **Peer-group Adjustment**

The adjustment problems with regard to peer-group are created and maintained by a circular-social process to which a child, his classmates and his teacher contribute. The child himself/herself contributes by reacting with hostility, withdrawal or ineptness to his own negative self-evaluation and by "his insensitive and defensive reception of
feedback from which might potentially give him more guidance for his own behaviour". The class group contributes to the problem by rapidly attaching an evaluative label to the child and then tends to act in ways that perpetuate the negative reputation. The group generally responds to the social difficulty of an individual child by ignoring or rejecting him rather than by sympathetic guidance. The teacher contributes to the situation by a lack of teaching effort focused on developing attitude and group standards about good human relations; a lack of interpersonal grouping practices and other procedures guided by mental health goals; a lack of clear presentation of constructive behaviour patterns towards low status children which could be imitated by other students.

Thus, creating opportunities to interact with their agemates is perhaps the way to help them build good social relations with peers. Teachers can encourage them to strengthen the mutual relations with their schoolmates by urging them to participate in group activities, such as join sports team, a musical group or a scouting group. On special occasion, such as New Year's Day, the Children's Day, or a birthday, teachers can help their children to make better relationships with other children by encouraging them to share with their friends either presents or goodwishes. These practices may help children to overcome their peer-group adjustment problems.
(iv) **Curriculum Adjustment**

In view of the fact that most of the rural students admitted to MDRSs are earlier taught through the local language. Secondly, too much impact of mother-tongue on students; pressure of other school subjects like Science, Mathematics, Social Studies and others on students; late introduction of English subject (VI standard) in school system; lack of audio-visual materials for enriching students’ English language, etc., are some of the causes of this adjustment problem.

Therefore, conducive atmosphere be developed for learning, English, Hindi, Science, Mathematics, Social Science, etc.; remedial teaching for the students with poor performance be undertaken; collateral and supplementary material be provided in the library to enrich the students’ knowledge in all the school subjects; desire to learn Hindi, English be developed among the students; in the schools instead of self-study in the lower classes ‘Supervised Study’ be practiced; steps are to be taken for early introduction of English subject in ‘lower classes’; number of periods in classes VI and VII be increased for abstract subjects, etc., are some of the measures suggested to resolve the problems related to the curriculum.
(v) **Co-curriculum Adjustment**

The probable causes of adjustment problems with regard to co-curricular activities are: non-organization of rural games; group-songs; group-dance; dramatics; indoor games; quiz competitions; celebrations of rural festivals; lack of opportunities for the collection of stamps, pictures and coins; non-organization of N.C.C, NSS and CTCs; lack of materials and duly trained teachers in rural crafts; inadequate play-ground facilities; shortage of funds for co-curricular activities, etc.

Organization of rural games, group-songs, group-dance, dramatics, indoor games, quiz competition; celebration of rural festivals; provision of opportunities and resources for the collection of stamps, pictures and coins; organization of NCC, NSS and CTCs; provision of materials and duly trained teachers in rural crafts; provision of adequate play-ground facilities and sufficient funds, etc., will help the students in improving their co-curricular adjustment.

(vi) **Classroom Teaching Adjustment**

Some of the causes of classroom teaching adjustment problems are: non-preparation of lesson plans in advance by the teachers; rare use of variety of instructional aids by the teachers; lack of student's familiarity with the modern technique of teaching such as experimental,
interactive, etc.; extensive use of English by the teacher while teaching, and rare use of black-board to write significant points by the teacher.

Regular preparation of lesson plans in advance by the teacher; use of variety of instructional aids and national educational programs (UGC, NCERT, IGNOU, etc.); gradual use of modern methods of teaching; use of familiar terms preferably in regional language; frequent use of black-board by the teachers to draw figures and write significant ideas or concepts, important words, new words, etc., are some of the measures suggested in order to improve the students classroom teaching adjustment.

(vii) Evaluation Adjustment

The main causes of adjustment problems with regard to evaluation are: failure of marks system in revealing the students exact positions; lack of adequate tools for measuring the real performance of students in non-scholastic area; lack of importance for students performance in non-scholastic area due to grading system; lack of students seriousness in non-scholastic area due to grading system; teacher’s mechanical assessment; ignorance of the students regarding evaluation system, etc.

Exact marks along with the grades to the achievement in the non-scholastic area, adequate tools for measuring students’ real achievement in non-scholastic area; enlightening students regarding need and
importance of non-scholastic achievement; creating interest among students in the achievement in non-scholastic area; avoiding mechanical assessment of performance in non-scholastic area; orient the students regarding various tools of evaluation, etc., treating both scholastic and non-scholastic subjects as subjects of equal importance; introduction of regular testing followed by immediate feed-back in non-scholastic area; making continuous testing comprehensive; consideration of continuous testing marks along with annual examination marks for promoting the students; educating the students regarding the importance of continuous testing; provision of immediate feed-back as a integral part of continuous testing are some of the measures suggested in order to improve the students evaluation adjustment.

6.12 Suggestions for Further Research

As the present investigation was being conducted, a need for undertaking few specific research studies relating to the field was felt. The suggestions for such studies are enumerated below under two categories:

1. Studies that arise out of the limitations of the present investigation; and

2. Studies that are related to the problem.
2. **Studies Arising out of the Limitations of the Present Investigation**

1. The study be conducted involving students of other classes in MDRSs;

2. The study be duplicated involving adequate samples of headmasters, teachers, students and parents for identifying the problems, causes and remedies of adjustment in MDRSs using interview schedule; and

3. Cross-validation of the findings of the present study.

3. **Studies Related to the Problem**

   (1) A study of the causes of adjustment problems of students studying in Morarji Desai Residential Schools be conducted;

   (2) A survey of the remedial measures involving headmasters, teachers, students and parents be conducted to overcome the adjustment problems of students in MDRSs.

   (3) A study of the academic problems of teachers of MDRSs may be undertaken.

   (4) A critical study of organizational and administrative problems of MDRSs.

   (5) A study of administrative problems of Headmasters of MDRSs.
(6) A study of job satisfaction and job involvement of teachers working in MDRSs.

(7) A comparative study of adjustment problems of students studying in Jawahar Navodaya Vidyalayas and MDRSs may be conducted.

(8) A study of the cumulative effect of six-year formal education offered in MDRSs on the performance of the students.

(9) A study of 'cost-benefit analysis' of MDRSs scheme in Karnataka may be taken up.

(10) Standardization of admission test for selection of students for MDRSs.

(11) A study could be undertaken by including other important variables not covered in the present study. For example, a study of factors like reading comprehension, listening comprehension, vocabulary, scholastic aptitude, attitude towards school, interest, social maturity, vocational aspiration, reactions to frustration and other environment variables in relation to academic achievement of MDRSs students at different levels of education may be considered.

(12) This study may be extended to other residential schools like Jawahar Navodaya Vidyalayas, Sainik Schools, and other Residential Schools run by NGOs, private bodies, defense services, etc.
(13) The same type of study may be undertaken with regard to residential teacher training institutions like DIETs, CTEs, Regional Institutes of Education (RIEs), etc.

(14) A comparative study of Jawahar Navodaya Vidyalays and MDRSs may be undertaken with the same design of this study.

(15) A comparative study of MDRSs and non-MDRSs may be carried out with the same design.

(16) This design of the study may be extended to MDRSs located in Southern, Eastern and Western Zones of Karnataka.

(17) A comparative study of students studying in VI Standard and X Standard in MDRSs may be undertaken with the same design of this study.