CHAPTER-V
CHAPTER-V
SUMMARY AND CONCLUSION

5.1 INTRODUCTION
The data collected for the present investigation have been analyzed and findings presented in the preceding chapters. This chapter presents a brief summary of the investigation, the findings, discussions of the findings, conclusions that have been drawn from the findings, limitations of the study, and implications and suggestions for further research in the field.

5.2 THE PROBLEM
As stated in the earlier contexts of the present report, the study was intended to study of Guilford’s Convergent and Divergent Abilities of IX standard students of Bagalkot and Bijapur Districts.

The problem of the study is stated as, ‘A Comparative Study of Guilford’s Convergent and Divergent Abilities among the Students of 9th Standard’.

5.3 OBJECTIVES OF THE STUDY
The present study is undertaken with the following general objectives in view.
To compare the Guilford’s convergent production ability factors among the 9th standard students of selected Government and Private schools of Bagalkot and Bijapur districts.
2. To compare the Guilford’s convergent production ability factors among the 9th standard students of selected aided and unaided schools of Bagalkot and Bijapur districts.

3. To compare the Guilford’s convergent production ability factors among the 9th standard students of selected urban and rural schools of Bagalkot and Bijapur districts.

4. To compare the Guilford’s convergent production ability factors among the 9th standard boy and girl students of Bagalkot and Bijapur districts.

5. To compare the Guilford’s divergent production ability factors among the 9th standard students of selected Government and Private schools of Bagalkot and Bijapur district.

6. To compare the Guilford’s divergent production ability factors among the 9th standard students of selected aided and unaided schools of Bagalkot and Bijapur districts.

7. To compare the Guilford’s divergent production ability factors among the 9th standard students of selected urban and rural schools of Bagalkot and Bijapur districts.

8. To compare the Guilford’s divergent production ability factors among the 9th standard boy and girl students of Bagalkot and Bijapur districts.
5.4 HYPOTHESES OF THE STUDY

Keeping in view, based on the above mentioned objectives, the following hypotheses were formulated:

1. There is no significant difference between 9th standard students of Bagalkot and Bijapur districts with respect to their different convergent abilities i.e. Figural Classification (NFC), Semantic Unit (NMU), Symbolic Relation (NSR), Symbolic System (NSS), Symbolic Transformation (NST), Semantic Classes (NMC), Semantic Relations (NMR), Semantic System (NMS), Semantic Transformation (NMT) and Semantic Implications (NMI).

2. There is no significant difference between boy and girl students of 9th standard with respect to their different convergent abilities i.e. Figural Classification (NFC), Semantic Unit (NMU), Symbolic Relation (NSR), Symbolic System (NSS), Symbolic Transformation (NST), Semantic Classes (NMC), Semantic Relations (NMR), Semantic System (NMS), Semantic Transformation (NMT) and Semantic Implications (NMI).

3. There is no significant difference between students of 9th standard belonging to government, aided and unaided schools with respect to their different convergent abilities i.e. Figural Classification (NFC), Semantic Unit (NMU), Symbolic Relation (NSR), Symbolic System (NSS), Symbolic Transformation (NST), Semantic Classes
(NMC), Semantic Relations (NMR), Semantic System (NMS), Semantic Transformation (NMT) and Semantic Implications (NMI).

4. There is no significant difference between 9th standard students of urban and rural schools with respect to their different convergent abilities i.e. Figural Classification (NFC), Semantic Unit (NMU), Symbolic Relation (NSR), Symbolic System (NSS), Symbolic Transformation (NST), Semantic Classes (NMC), Semantic Relations (NMR), Semantic System (NMS), Semantic Transformation (NMT) and Semantic Implications (NMI).

5. There is no significant difference between 9th standard students of Bagalkot and Bijapur districts with respect to their different divergent abilities i.e. Word Production Test (WPT), Uses of Things Test (UTT), Similarities Test (ST), Sentence Construction test (SCT), Title Test (TT) and Elaboration Test (ET).

6. There is no significant difference between 9th standard boy and girl students with respect to their different divergent abilities i.e. Word Production Test (WPT), Uses of Things Test (UTT), Similarities Test (ST), Sentence Construction Test (SCT), Title Test (TT) and Elaboration Test (ET).

7. There is no significant difference between students of 9th standard belonging to government, aided and unaided schools with respect to their different divergent abilities i.e. Word Production Test (WPT), Uses of Things Test (UTT), Similarities
Test (ST), Sentence Construction Test (SCT), Title Test (TT) and Elaboration Test (ET).

8. There is no significant difference between 9th standard students of urban and rural schools with respect to their different divergent abilities i.e. Word Production Test (WPT), Uses of Things Test (UTT), Similarities Test (ST), Sentence Construction Test (SCT), Title Test (TT) and Elaboration Test (ET).

9. There is no significant interaction effects of districts (Bagalkot and Bijapur) and sex (boys and girls) on Figural Classification (NFC) ability of 9th standard students.

10. There is no significant interaction effects of districts (Bagalkot and Bijapur) and types of management (government, aided and unaided) on Figural Classification (NFC) ability of 9th standard students.

11. There is no significant interaction effects of districts (Bagalkot and Bijapur) and location (urban and rural) on Figural Classification (NFC) ability of 9th standard students.

12. There is no significant interaction effects of districts (Bagalkot and Bijapur) and sex (boys and girls) on Semantic Unit (NMU) ability of 9th standard students.
13. There is no significant interaction effects of districts (Bagalkot and Bijapur) and
types of management (government, aided and unaided) on Semantic Unit (NMU)
ability of 9th standard students.

14. There is no significant interaction effects of districts (Bagalkot and Bijapur) and
location (urban and rural) on Semantic Unit (NMU) ability of 9th standard students.

15. There is no significant interaction effects of districts (Bagalkot and Bijapur) and
sex (boys and girls) on Symbolic Relation (NSR) ability of 9th standard students.

16. There is no significant interaction effects of districts (Bagalkot and Bijapur) and
types of management (government, aided and unaided) on Symbolic Relation (NSR)
ability of 9th standard students.

17. There is no significant interaction effects of districts (Bagalkot and Bijapur) and
location (urban and rural) on Symbolic Relation (NSR) ability of 9th standard students.

18. There is no significant interaction effects of districts (Bagalkot and Bijapur) and
sex (boys and girls) on Symbolic System (NSS) ability of 9th standard students.

19. There is no significant interaction effects of districts (Bagalkot and Bijapur) and
types of management (government, aided and unaided) on Symbolic System (NSS)
ability of 9th standard students.
20. There is no significant interaction effects of districts (Bagalkot and Bijapur) and location (urban and rural) on Symbolic System (NSS) ability of 9th standard students.

21. There is no significant interaction effect of districts (Bagalkot and Bijapur) and sex (boys and girls) on Symbolic Transformation (NST) ability of 9th standard students.

22. There is no significant interaction effects of districts (Bagalkot and Bijapur) and types of management (government, aided and unaided) on Symbolic Transformation (NST) ability of 9th standard students.

23. There is no significant interaction effect of districts (Bagalkot and Bijapur) and location (urban and rural) on Symbolic Transformation (NST) ability of 9th standard students.

24. There is no significant interaction effect of districts (Bagalkot and Bijapur) and sex (boys and girls) on Semantic Classes (NMC) ability of 9th standard students.

25. There is no significant interaction effects of districts (Bagalkot and Bijapur) and types of management (government, aided and unaided) on Semantic Classes (NMC) ability of 9th standard students.
26. There is no significant interaction effect of districts (Bagalkot and Bijapur) and location (urban and rural) on Semantic Classes (NMC) ability of 9th standard students.

27. There is no significant interaction effect of districts (Bagalkot and Bijapur) and sex (boys and girls) on Semantic Relations (NMR) ability of 9th standard students.

28. There is no significant interaction effects of districts (Bagalkot and Bijapur) and types of management (government, aided and unaided) on Semantic Relations (NMR) ability of 9th standard students.

29. There is no significant interaction effect of districts (Bagalkot and Bijapur) and location (urban and rural) on Semantic Relations (NMR) ability of 9th standard students.

30. There is no significant interaction effect of districts (Bagalkot and Bijapur) and sex (boys and girls) on Semantic System (NMS) ability of 9th standard students.

31. There is no significant interaction effects of districts (Bagalkot and Bijapur) and types of management (government, aided and unaided) on Semantic System (NMS) ability of 9th standard students.

32. There is no significant interaction effect of districts (Bagalkot and Bijapur) and location (urban and rural) on Semantic System (NMS) ability of 9th standard students.
33. There is no significant interaction effect of districts (Bagalkot and Bijapur) and sex (boys and girls) on Semantic Transformation (NMT) ability of 9th standard students.

34. There is no significant interaction effects of districts (Bagalkot and Bijapur) and types of management (government, aided and unaided) on Semantic Transformation (NMT) ability of 9th standard students.

35. There is no significant interaction effect of districts (Bagalkot and Bijapur) and location (urban and rural) on Semantic Transformation (NMT) ability of 9th standard students.

36. There is no significant interaction effect of districts (Bagalkot and Bijapur) and sex (boys and girls) on Semantic Implications (NMI) ability of 9th standard students.

37. There is no significant interaction effects of districts (Bagalkot and Bijapur) and types of management (government, aided and unaided) on Semantic Implications (NMI) ability of 9th standard students.

38. There is no significant interaction effect of districts (Bagalkot and Bijapur) and location (urban and rural) on Semantic Implications (NMI) ability of 9th standard students.
39. There is no significant interaction effects of districts (Bagalkot and Bijapur) and sex (boys and girls) on Word Production Test (WPT) ability of 9th standard students.

40. There is no significant interaction effects of districts (Bagalkot and Bijapur) and types of management (government, aided and unaided) on Word Production Test (WPT) ability of 9th standard students.

41. There is no significant interaction effects of districts (Bagalkot and Bijapur) and location (urban and rural) on Word Production Test (WPT) ability of 9th standard students.

42. There is no significant interaction effects of districts (Bagalkot and Bijapur) and sex (boys and girls) on Uses of Things Test (UTT) ability of 9th standard students.

43. There is no significant interaction effects of districts (Bagalkot and Bijapur) and types of management (government, aided and unaided) on Uses of Things Test (UTT) ability of 9th standard students.

44. There is no significant interaction effects of districts (Bagalkot and Bijapur) and location (urban and rural) on Uses of Things Test (UTT) ability of 9th standard students.
45. There is no significant interaction effects of districts (Bagalkot and Bijapur) and sex (boys and girls) on Similarities Test (ST) ability of 9th standard students.

46. There is no significant interaction effects of districts (Bagalkot and Bijapur) and types of management (government, aided and unaided) on Similarities Test (ST) ability of 9th standard students.

47. There is no significant interaction effects of districts (Bagalkot and Bijapur) and location (urban and rural) on Similarities Test (ST) ability of 9th standard students.

48. There is no significant interaction effects of districts (Bagalkot and Bijapur) and sex (boys and girls) on Sentence Construction Test (SCT) ability of 9th standard students.

49. There is no significant interaction effects of districts (Bagalkot and Bijapur) and types of management (government, aided and unaided) on Sentence Construction Test (SCT) ability of 9th standard students.

50. There is no significant interaction effects of districts (Bagalkot and Bijapur) and location (urban and rural) on Sentence Construction Test (SCT) ability of 9th standard students.

51. There is no significant interaction effects of districts (Bagalkot and Bijapur) and sex (boys and girls) on Title Test (TT) ability of 9th standard students.
52. There is no significant interaction effects of districts (Bagalkot and Bijapur) and types of management (government, aided and unaided) on Title Test (TT) ability of 9th standard students.

53. There is no significant interaction effects of districts (Bagalkot and Bijapur) and location (urban and rural) on Title Test (TT) ability of 9th standard students.

54. There is no significant interaction effects of districts (Bagalkot and Bijapur) and sex (boys and girls) on Elaboration Test (ET) ability of 9th standard students.

55. There is no significant interaction effects of districts (Bagalkot and Bijapur) and types of management (government, aided and unaided) on Elaboration Test (ET) ability of 9th standard students.

56. There is no significant interaction effects of districts (Bagalkot and Bijapur) and location (urban and rural) on Elaboration Test (ET) ability of 9th standard students.

57. There is no significant relationship among Figural Classification (NFC), Semantic Unit (NMU), Symbolic Relation (NSR), Symbolic System (NSS), Symbolic Transformation (NST), Semantic Classes (NMC), Semantic Relations (NMR), Semantic System (NMS), Semantic Transformation (NMT) and Semantic Implications (NMI) of 9th standard students (overall students)
58. There is no significant relationship among Figural Classification (NFC), Semantic Unit (NMU), Symbolic Relation (NSR), Symbolic System (NSS), Symbolic Transformation (NST), Semantic Classes (NMC), Semantic Relations (NMR), Semantic System (NMS), Semantic Transformation (NMT) and Semantic Implications (NMI) of 9th standard students of Bagalkot district.

59. There is no significant relationship among Figural Classification (NFC), Semantic Unit (NMU), Symbolic Relation (NSR), Symbolic System (NSS), Symbolic Transformation (NST), Semantic Classes (NMC), Semantic Relations (NMR), Semantic System (NMS), Semantic Transformation (NMT) and Semantic Implications (NMI) of 9th standard students of Bijapur district.

60. There is no significant relationship among Word Production Test (WPT), Uses of Things Test (UTT), Similarities Test (ST), Sentence Construction Test (SCT), Title Test (TT) and Elaboration Test (ET) of 9th standard students (overall students)

61. There is no significant relationship among Word Production Test (WPT), Uses of Things Test (UTT), Similarities Test (ST), Sentence Construction Test (SCT), Title Test (TT) and Elaboration Test (ET) of 9th standard students of Bagalkot district
There is no significant relationship among Word Production Test (WPT), Uses of Things Test (UTT), Similarities Test (ST), Sentence Construction Test (SCT), Title Test (TT) and Elaboration Test (ET) of 9th standard students of Bijapur district.

5.5 DESIGN OF THE STUDY

In the present investigation, the descriptive survey method design is used for assessing the comparison and relationships. The comparisons were made among different independent and moderate variables with respect to convergent and divergent abilities of 9th standard students. Further the relationships were calculated among factors of convergent and divergent abilities of 9th standard students separately. This enhances cross checking of the data and thereby ensures reliability and minimizes variability. Hence the investigator collected data from secondary school.

5.6 VARIABLES SELECTED FOR THE STUDY

The following Independent and Moderator Variables were chosen to be studied in the present study.

**Independent Variables**

3. Guilford’s Convergent factors
4. Guilford’s Divergent factors

**Moderate Variables**

5. Revenue area (Bagalkot and Bijapur)
6. Gender (boys and girls)
7. Types of management (government, aided and unaided)
8. Location of schools (urban and rural)

In the present investigation, the descriptive survey method is used for assessing the comparison and relationships. The comparisons were made among different independent variables with respect to convergent and divergent ability of 9th standard students. Further the relationships were calculated among factors of convergent and divergent abilities of 9th standard students separately. This enhances cross checking of the data and thereby ensures reliability and minimizes variability. Hence the investigator collected data from secondary schools.

5.7 SAMPLE OF THE STUDY

The sample selected for the study is from 9th standard students of secondary schools of Bagalkot and Bijapur district. A total of 1008 students from 9th standard of secondary schools were selected by simple Stratified Sampling procedure.

5.8 TOOLS OF STUDY

In the present study, investigator used two tools. They are as such:

5.8.1 Convergent Abilities Tests- Investigator constructed the tests

5.8.2 Divergent Abilities Tests - Sharma. K.N.

The Convergent abilities tests are developed by using scientific procedure in order to collect the data. In the present study the Guilford’s Type Tests of Convergent Production Abilities representing ten factors and the total pool consists of 100 items, which are developed after consulting the following sources:

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• Guilford’s J.P. ‘Structure of Intellect’. In Psychological Bulletin, 52, 1996.


• Katageri, B. S. ‘Construction and Analysis of Guilford Type Test’. Unpublished Dissertation, Karnataka University, 1981.


• Investigator’s experience.

In the present study the Guilford’s Type Tests of Divergent Production Abilities are developed and standardized the test by Sharma, K.N. Investigator used these tests. The battery of Divergent production abilities contains six tests and measures eight abilities.

5.9 COLLECTION OF DATA

The investigator personally visited to different secondary schools of Bagalkot and Bijapur districts including aided, unaided and government in rural and urban location for collection of data.

5.10 STATISTICAL TECHNIQUES EMPLOYED

The investigator used following statistical techniques for the analyses of the collected data.

1. Descriptive statistics Analyses

2. Differential Statistics Analyses
3. Differential statistical analyses effects of independent variables on convergent and divergent abilities of 9th standard students: Two ways ANOVA and Tykey’s multiple post hoc procedures.

4. Karl Pearson’s Correlation Coefficient.
These are used to assess the relationships of Convergent and Divergent abilities factors of 9th standard students of secondary schools in both Bagalkot and Bijapur Districts.

5.11 SCOPE OF THE STUDY
The present study is confined to 9th standard students of secondary schools of Bagalkot and Bijapur districts. Investigator studied the Guilford’s convergent and Divergent abilities of 9th standard students.

5.12 MAJOR FINDINGS
Evaluating all the findings obtained by analyzing the data, the major findings can be summarized as follows.

1. The students of 9th standard of Bagalkot district have higher Semantic Unit (NMU), Symbolic Relation (NSR), Symbolic System (NSS), Symbolic Transformation (NST), Semantic Relations (NMR), Semantic System (NMS), Semantic Transformation (NMT) and Semantic Implications (NMI) abilities scores as compared to 9th standard students of Bijapur district.

2. The students of 9th standard of Bagalkot and Bijapur districts have similar Semantic Classes (NMC) ability scores.
3. The boy and girl students of 9th standard have similar Semantic Unit (NMU), Symbolic Relation (NSR), Symbolic System (NSS), Symbolic Transformation (NST), Symbolic Classes (NMC), Semantic Relations (NMR), Semantic System (NMS), Semantic Transformation (NMT) and Semantic Implications (NMI) abilities scores.

4. The students of 9th standard of government, aided and unaided schools have different Semantic Unit (NMU), Symbolic Relation (NSR), Symbolic System (NSS), Symbolic Transformation (NST), Symbolic Classes (NMC), Semantic Relations (NMR), Semantic System (NMS), Semantic Transformation (NMT) and Semantic Implications (NMI) abilities scores.

5. The 9th standard students of aided schools have significantly higher Figural Classification (NFC) ability scores as compared to government schools.

6. The 9th standard students of aided schools have significantly higher Semantic Unit (NMU) ability scores as compared to government schools.

7. The 9th standard students of unaided schools have significantly higher Semantic Unit (NMU) ability scores as compared to government schools.

8. The 9th standard students of aided schools have significantly higher Symbolic Relation (NSR) ability scores as compared to government schools.

9. The 9th standard students of aided schools have significantly higher Symbolic System (NSS) ability scores as compared to government schools.

10. The 9th standard students of aided schools have significantly higher Symbolic Transformation (NST) ability scores as compared to government schools.
11. The 9th standard students of unaided schools have significantly higher Symbolic Transformation (NST) ability scores as compared to government schools.

12. The 9th standard students of aided schools have significantly higher Semantic Classes (NMC) ability scores as compared to government schools.

13. The 9th standard students of unaided schools have significantly higher Semantic Classes (NMC) ability scores as compared to government schools.

14. The 9th standard students of aided schools have significantly higher Semantic Relations (NMR) ability scores as compared to government schools.

15. The 9th standard students of aided schools have significantly higher Semantic System (NMS) ability scores as compared to government schools.

16. The 9th standard students of unaided schools have significantly higher Semantic System (NMS) ability scores as compared to government schools.

17. The 9th standard students of aided schools have significantly higher Semantic Transformation (NMT) ability scores as compared to unaided schools.

18. The 9th standard students of aided schools have significantly higher Semantic Implications (NMI) ability scores as compared to government schools.

19. The 9th standard students of rural schools have higher Semantic Unit (NMU), Symbolic Relation (NSR) and Semantic Implications (NMI) abilities scores as compared to urban school students.

20. The 9th standard students of urban and rural schools have similar Symbolic System (NSS), Symbolic Transformation (NST), Semantic Classes (NMC),
Semantic Relations (NMR), Semantic System (NMS), and Semantic Transformation (NMT) abilities scores.

21. The 9th standard students of Bagalkot and Bijapur districts have different Word Production Test (WPT), Uses of Things Test (UTT), Sentence Construction Test (SCT) and Elaboration Test (ET) abilities scores.

22. The 9th standard students of Bagalkot and Bijapur districts have similar Similarity Test (ST) and Title Test (TT) abilities scores.

23. The 9th standard boy and girl students have similar Word Production Test (WPT), Uses of Things Test (UTT), Similarities Test (ST), Sentence Construction Test (SCT), Title Test (TT) and Elaboration Test (ET) abilities scores.

24. The students of 9th standard students of government, aided and unaided schools have different Uses of Things test (UTT), Similarity Test (ST) and Title Test (TT) abilities scores.

25. The students of 9th standard students of government, aided and unaided schools have similar Word Production Test (WPT), Sentence Construction Test (SCT) and Elaboration Test (ET) abilities scores.

26. The 9th standard students of aided schools have significantly higher Uses of Things Test (UTT) ability scores as compared to government schools.

27. The 9th standard students of aided schools have significant higher Uses of Things Test (UTT) ability scores as compared to unaided schools.

28. The 9th standard students of aided schools have significantly higher Similarity Test (ST) ability scores as compared to government schools.
29. The 9th standard students of aided schools have significantly higher Similarity Test (ST) ability scores as compared to unaided schools.

30. The 9th standard students of aided schools have significantly higher Title Test (TT) ability scores as compared to government schools.

31. The 9th standard students of aided schools have significantly higher Title Test (TT) ability scores as compared to unaided schools.

32. The 9th standard students of rural schools have significantly higher Word Production Test (WPT), Uses of Things Test (UTT), Similarity Test (ST), Sentence Construction Test (SCT), Title Test (TT) and Elaboration Test (ET) ability scores as compared to urban school students.

33. The main effect of both the districts (Bagalkot and Bijapur) on Figural Classification (NFC) ability of 9th standard students is found to be significant.

34. The main effect of sex (boys and girls) on Figural Classification, (NFC) ability of 9th standard students is found to be not significant.

35. The interaction effect of districts (Bagalkot and Bijapur) and sex (boys and girls) on Figural Classification (NFC) ability of 9th standard students is found to be not significant.

36. The main effect of types of management (government, aided and unaided) on Figural Classification (NFC) ability of 9th standard students is found to be significant.

37. The interaction effect of districts (Bagalkot and Bijapur) and types of management (government, aided and unaided) on Figural Classification (NFC) ability of 9th standard students is found to be significant.
38. The 9th standard students of government schools of Bagalkot district have higher Figural Classification (NFC) ability scores as compared to government schools of Bijapur district.

39. The 9th standard students of aided schools of Bagalkot district have higher Figural Classification (NFC) ability scores as compared to government schools of Bijapur district.

40. The 9th standard students of unaided schools of Bagalkot district have higher Figural Classification (NFC) ability scores as compared to government schools of Bijapur district.

41. The 9th standard students of aided schools of Bijapur district have higher Figural Classification (NFC) ability scores as compared to government schools of Bijapur district.

42. The 9th standard students of unaided schools of Bijapur district have higher Figural Classification (NFC) ability scores as compared to government schools of Bijapur district.

43. The main effect of location (urban and rural) on Figural Classification (NFC) ability of 9th standard students is found to be significant.

44. The interaction effect of districts (Bagalkot and Bijapur) and location (urban and rural) on Figural Classification (NFC) ability of 9th standard students is found to be not significant.

45. The main effect of districts (Bagalkot and Bijapur) on Semantic Unit (NMU) ability of 9th standard students is found to be significant.
46. The main effect of sex (boys and girls) on Semantic Unit (NMU) ability of 9th standard students is found to be not significant

47. The interaction effect of districts (Bagalkot and Bijapur) and sex (boys and girls) on Semantic Unit (NMU) ability of 9th standard students is found to be not significant

48. The main effect of types of management (government, aided and unaided) on Semantic Unit (NMU) ability of 9th standard students is found to be significant

49. The interaction effect of districts (Bagalkot and Bijapur) and types of management (government, aided and unaided) on Semantic Unit (NMU) ability of 9th standard students is found to be significant

50. The 9th standard students of government schools of Bagalkot district have higher Semantic Unit (NMU) ability scores as compared to 9th standard students of government schools of Bijapur district

51. The 9th standard students of aided schools of Bagalkot district have higher Semantic Unit (NMU) ability scores as compared to 9th standard students of government schools of Bijapur district

52. The 9th standard students of unaided schools of Bagalkot district have higher Semantic Unit (NMU) ability scores as compared to 9th standard students of government schools of Bijapur district

53. The 9th standard students of aided schools of Bijapur district have higher Semantic Unit (NMU) ability scores as compared to 9th standard students of government schools of Bijapur district
54. The 9th standard students of unaided schools of Bijapur district have higher Semantic Unit (NMU) ability scores as compared to 9th standard students of government schools of Bijapur district.

55. The main effect of location (urban and rural) on Semantic Unit (NMU) ability of 9th standard students is found to be significant.

56. The interaction effect of districts (Bagalkot and Bijapur) and location (urban and rural) on Semantic Unit (NMU) ability of 9th standard students is found to be not significant.

57. The main effect of districts (Bagalkot and Bijapur) on Symbolic Relation (NSR) ability of 9th standard students is found to be significant.

58. The main effect of sex (boys and girls) on Symbolic Relation (NSR) ability of 9th standard students is found to be not significant.

59. The interaction effect of districts (Bagalkot and Bijapur) and sex (boys and girls) on Symbolic Relation (NSR) ability of 9th standard students is found to be not significant.

60. The main effect of districts (Bagalkot and Bijapur) on Symbolic Relation (NSR) ability of 9th standard students is found to be significant.

61. The main effect of types of management (government, aided and unaided) on Symbolic Relation (NSR) ability of 9th standard students is found to be significant.

62. The interaction effect of districts (Bagalkot and Bijapur) and types of management (government, aided and unaided) on Symbolic Relation (NSR) ability of 9th standard students is found to be significant.
63. the 9th standard students of government schools of Bagalkot district have higher Symbolic Relation (NSR) ability scores as compared to 9th standard students of government schools of Bijapur district

64. the 9th standard students of aided schools of Bagalkot district have higher Symbolic Relation (NSR) ability scores as compared to 9th standard students of government schools of Bijapur district

65. the 9th standard students of unaided schools of Bagalkot district have higher Symbolic Relation (NSR) ability scores as compared to 9th standard students of government schools of Bijapur district

66. the 9th standard students of aided schools of Bijapur district have higher Symbolic Relation (NSR) ability scores as compared to 9th standard students of government schools of Bijapur district

67. the 9th standard students of unaided schools of Bijapur district have higher Symbolic Relation (NSR) ability scores as compared to 9th standard students of government schools of Bijapur district

68. The main effect of location (urban and rural) on Symbolic Relation (NSR) ability of 9th standard students is found to be not significant

69. The interaction effect of districts (Bagalkot and Bijapur) and location (urban and rural) on Symbolic Relation (NSR) ability of 9th standard students is found to be significant

70. The 9th standard students of rural schools of Bagalkot district have higher Symbolic Relation (NSR) ability scores as compared to urban schools of Bagalkot district
71. The 9th standard students of rural schools of Bagalkot have higher Symbolic Relation (NSR) ability scores as compared to urban schools of Bijapur district.

72. The 9th standard students of rural schools of Bagalkot have higher Symbolic Relation (NSR) ability scores as compared to rural schools of Bijapur district.

73. The main effect of sex (boys and girls) on Symbolic System (NSS) ability of 9th standard students is found to be not significant.

74. The interaction effect of districts (Bagalkot and Bijapur) and sex (boys and girls) on Symbolic System (NSS) ability of 9th standard students is found to be not significant.

75. The main effect of districts (Bagalkot and Bijapur) on Symbolic System (NSS) ability of 9th standard students is found to be significant.

76. The main effect of types of management (government, aided and unaided) on Symbolic System (NSS) ability of 9th standard students is found to be significant.

77. The interaction effect of districts (Bagalkot and Bijapur) and types of management (government, aided and unaided) on Symbolic System (NSS) ability of 9th standard students is found to be significant.

78. The 9th standard students of government schools of Bagalkot district have higher Symbolic System (NSS) ability scores as compared to 9th standard students of unaided schools of Bagalkot district.

79. The 9th standard students of government schools of Bagalkot district have higher Symbolic System (NSS) ability scores as compared to 9th standard students of government schools of Bijapur district.
80. The 9th standard students of aided schools of Bagalkot district have higher Symbolic System (NSS) ability scores as compared to 9th standard students of unaided schools of Bagalkot district

81. The 9th standard students of aided schools of Bagalkot district have higher Symbolic System (NSS) ability scores as compared to 9th standard students of government schools of Bijapur district

82. The 9th standard students of aided schools of Bagalkot district have higher Symbolic System (NSS) ability scores as compared to 9th standard students of aided schools of Bijapur district

83. The 9th standard students of unaided schools of Bijapur district have higher Symbolic System (NSS) ability scores as compared to 9th standard students of unaided schools of Bagalkot district

84. The 9th standard students of unaided schools of Bijapur district have higher Symbolic System (NSS) ability scores as compared to 9th standard students of government schools of Bijapur district

85. The main effect of location (urban and rural) on Symbolic System (NSS) ability of 9th standard students is found to be not significant

86. The interaction effect of districts (Bagalkot and Bijapur) and location (urban and rural) on Symbolic System (NSS) ability of 9th standard students is found to be not significant

87. The main effect of districts (Bagalkot and Bijapur) on Symbolic Transformation (NST) ability of 9th standard students is found to be significant
88. The main effect of sex (boys and girls) on Symbolic Transformation (NST) ability of 9th standard students is found to be not significant

89. The interaction effect of districts (Bagalkot and Bijapur) and sex (boys and girls) on Symbolic Transformation (NST) ability of 9th standard students is found to be significant

90. The 9th standard girl students of Bagalkot district have higher Symbolic Transformation (NST) ability scores as compared to 9th standard boy students of Bagalkot district

91. The 9th standard girl students of Bagalkot district have higher Symbolic Transformation (NST) ability scores as compared to 9th standard boy students of Bijapur district

92. The 9th standard girl students of Bagalkot district have higher Symbolic Transformation (NST) ability scores as compared to 9th standard girl students of Bijapur district

93. The main effect of types of management (government, aided and unaided) on Symbolic Transformation (NST) ability of 9th standard students is found to be significant

94. The interaction effect of districts (Bagalkot and Bijapur) and types of management (government, aided and unaided) on Symbolic Transformation (NST) ability of 9th standard students is found to be significant

95. The 9th standard students of government schools of Bagalkot district have higher Symbolic Transformation (NST) ability scores as compared to 9th standard students of government schools of Bijapur district
96. The 9th standard students of aided schools of Bagalkot district have higher Symbolic Transformation (NST) ability scores as compared to 9th standard students of government schools of Bijapur district

97. The 9th standard students of unaided schools of Bagalkot district have higher Symbolic Transformation (NST) ability scores as compared to 9th standard students of government schools of Bijapur district

98. The 9th standard students of aided schools of Bijapur district have higher Symbolic Transformation (NST) ability scores as compared to 9th standard students of government schools of Bijapur district

99. The 9th standard students of unaided schools of Bijapur district have higher Symbolic Transformation (NST) ability scores as compared to 9th standard students of government schools of Bijapur district

100. The main effect of location (urban and rural) on Symbolic Transformation (NST) ability of 9th standard students is found to be not significant

101. The interaction effect of districts (Bagalkot and Bijapur) and location (urban and rural) on Symbolic Transformation (NST) ability of 9th standard students is found to be not significant

102. The main effect of districts (Bagalkot and Bijapur) on Semantic Classes (NMC) ability of 9th standard students is found to be not significant

103. The main effect of sex (boys and girls) on Semantic Classes (NMC) ability of 9th standard students is found to be not significant
104. The interaction effect of districts (Bagalkot and Bijapur) and sex (boys and girls) on Semantic Classes (NMC) ability of 9th standard students is found to be not significant

105. The main effect of types of management (government, aided and unaided) on Semantic Classes (NMC) ability of 9th standard students is found to be significant

106. The interaction effect of districts (Bagalkot and Bijapur) and types of management (government, aided and unaided) on Semantic Classes (NMC) ability of 9th standard students is found to be significant

107. The 9th standard students of government schools of Bagalkot district have higher Semantic Classes (NMC) ability scores as compared to 9th standard students of government schools of Bijapur district

108. The 9th standard students of aided schools of Bagalkot district have higher Semantic Classes (NMC) ability scores as compared to 9th standard students of government schools of Bijapur district

109. The 9th standard students of aided schools of Bijapur district have higher Semantic Classes (NMC) ability scores as compared to 9th standard students of government schools of Bijapur district

110. The 9th standard students of unaided schools of Bijapur district have higher Semantic Classes (NMC) ability scores as compared to 9th standard students of government schools of Bijapur district

111. The main effect of location (urban and rural) on Semantic Classes (NMC) ability of 9th standard students is found to be not significant
112. The interaction effect of districts (Bagalkot and Bijapur) and location (urban and rural) on Semantic Classes (NMC) ability of 9th standard students is found to be not significant.

113. The main effect of districts (Bagalkot and Bijapur) on Semantic Relations (NMR) ability of 9th standard students is found to be significant.

114. The main effect of sex (boys and girls) on Semantic Relations (NMR) ability of 9th standard students is found to be not significant.

115. The interaction effect of districts (Bagalkot and Bijapur) and sex (boys and girls) on Semantic Relations (NMR) ability of 9th standard students is found to be not significant.

116. The main effect of types of management (government, aided and unaided) on Semantic Relations (NMR) ability of 9th standard students is found to be significant.

117. The interaction effect of districts (Bagalkot and Bijapur) and types of management (government, aided and unaided) on Semantic Relations (NMR) ability of 9th standard students is found to be significant.

118. The 9th standard students of government schools of Bagalkot district have higher Semantic Relations (NMR) ability scores as compared to 9th standard students of government schools of Bijapur district.

119. The 9th standard students of aided schools of Bagalkot district have higher Semantic Relations (NMR) ability scores as compared to 9th standard students of unaided schools of Bagalkot district.
120. The 9th standard students of government schools of Bagalkot district have higher Semantic Relations (NMR) ability scores as compared to 9th standard students of aided schools of Bijapur district

121. The 9th standard students of unaided schools of Bagalkot district have higher Semantic Relations (NMR) ability scores as compared to 9th standard students of government schools of Bijapur district

122. The 9th standard students of aided schools of Bijapur district have higher Semantic Relations (NMR) ability scores as compared to 9th standard students of government schools of Bijapur district

123. The 9th standard students of unaided schools of Bijapur district have higher Semantic Relations (NMR) ability scores as compared to 9th standard students of government schools of Bijapur district

124. The main effect of location (urban and rural) on Semantic Relations (NMR) ability of 9th standard students is found to be not significant

125. The interaction effect of districts (Bagalkot and Bijapur) and location (urban and rural) on Semantic Relations (NMR) ability of 9th standard students is found to be not significant

126. The main effect of districts (Bagalkot and Bijapur) on Semantic System (NMS) ability of 9th standard students is found to be significant

127. The main effect of sex (boys and girls) on Semantic System (NMS) ability of 9th standard students is found to be not significant
128. The interaction effect of districts (Bagalkot and Bijapur) and sex (boys and girls) on Semantic System (NMS) ability of 9th standard students is found to be not significant

129. The main effect of types of management (government, aided and unaided) on Semantic System (NMS) ability of 9th standard students is found to be significant

130. The interaction effect of districts (Bagalkot and Bijapur) and types of management (government, aided and unaided) on Semantic System (NMS) ability of 9th standard students is found to be significant.

131. The 9th standard students of government schools of Bagalkot district have higher Semantic System (NMS) ability scores as compared to 9th standard students of government schools of Bijapur district

132. The 9th standard students of aided schools of Bagalkot district have higher Semantic System (NMS) ability scores as compared to 9th standard students of government schools of Bijapur district

133. The 9th standard students of unaided schools of Bagalkot district have higher Semantic System (NMS) ability scores as compared to 9th standard students of government schools of Bijapur district

134. The 9th standard students of aided schools of Bijapur district have higher Semantic System (NMS) ability scores as compared to 9th standard students of government schools of Bijapur district
135. The 9th standard students of unaided schools of Bijapur district have higher Semantic System (NMS) ability scores as compared to 9th standard students of government schools of Bijapur district.

136. The main effect of location (urban and rural) on Semantic System (NMS) ability of 9th standard students is found to be not significant.

137. The interaction effect of districts (Bagalkot and Bijapur) and location (urban and rural) on Semantic System (NMS) ability of 9th standard students is found to be not significant.

138. The main effect of districts (Bagalkot and Bijapur) on Semantic Transformation (NMT) ability of 9th standard students is found to be significant.

139. The main effect of sex (boys and girls) on Semantic Transformation (NMT) ability of 9th standard students is found to be not significant.

140. The interaction effect of districts (Bagalkot and Bijapur) and sex (boys and girls) on Semantic Transformation (NMT) ability of 9th standard students is found to be not significant.

141. The main effect of types of management (government, aided and unaided) on Semantic Transformation (NMT) ability of 9th standard students is found to be significant.

142. The interaction effect of districts (Bagalkot and Bijapur) and types of management (government, aided and unaided) on Semantic Transformation (NMT) ability of 9th standard students is found to be significant.
143. The 9th standard students of government schools of Bagalkot district have higher Semantic Transformation (NMT) ability scores as compared to 9th standard students of government schools of Bijapur district.

144. The 9th standard students of government schools of Bagalkot district have higher Semantic Transformation (NMT) ability scores as compared to 9th standard students of unaided schools of Bijapur district.

145. The 9th standard students of aided schools of Bijapur district have higher Semantic Transformation (NMT) ability scores as compared to 9th standard students of government schools of Bijapur district.

146. The 9th standard students of aided schools of Bijapur district have higher Semantic Transformation (NMT) ability scores as compared to 9th standard students of unaided schools of Bijapur district.

147. The main effect of location (urban and rural) on Semantic Transformation (NMT) ability of 9th standard students is found to be significant.

148. The interaction effect of districts (Bagalkot and Bijapur) and location (urban and rural) on Semantic Transformation (NMT) ability of 9th standard students is found to be not significant.

149. The main effect of districts (Bagalkot and Bijapur) on Semantic Implications (NMI) ability of 9th standard students is found to be significant.

150. The main effect of sex (boys and girls) on Semantic Implications (NMI) ability of 9th standard students is found to be not significant.
151. The interaction effect of districts (Bagalkot and Bijapur) and sex (boys and girls) on Semantic Implications (NMI) ability of 9th standard students is found to be not significant.

152. The main effect of types of management (government, aided and unaided) on Semantic Implications (NMI) ability of 9th standard students is found to be significant.

153. The interaction effect of districts (Bagalkot and Bijapur) and types of management (government, aided and unaided) on Semantic Implications (NMI) ability of 9th standard students is found to be significant.

154. The 9th standard students of government schools of Bagalkot district have higher Semantic Implications (NMI) ability scores as compared to 9th standard students of government schools of Bijapur district.

155. The 9th standard students of aided schools of Bagalkot district have higher Semantic Implications (NMI) ability scores as compared to 9th standard students of unaided schools of Bagalkot district.

156. The 9th standard students of unaided schools of Bagalkot district have higher Semantic Implications (NMI) ability scores as compared to 9th standard students of government schools of Bijapur district.

157. The 9th standard students of aided schools of Bijapur district have higher Semantic Implications (NMI) ability scores as compared to 9th standard students of government schools of Bijapur district.
158. the 9th standard students of unaided schools of Bijapur district have higher Semantic Implications (NMI) ability scores as compared to 9th standard students of government schools of Bijapur district

159. The main effect of location (urban and rural) on Semantic Implications (NMI) ability of 9th standard students is found to be not significant

160. The interaction effect of districts (Bagalkot and Bijapur) and location (urban and rural) on Semantic Implications (NMI) ability of 9th standard students is found to be not significant

161. The main effect of districts (Bagalkot and Bijapur) on Word Production test (WPT) ability of 9th standard students is found to be significant

162. The main effect of sex (boys and girls) on Word Production test (WPT) ability of 9th standard students is found to be not significant

163. The interaction effect of districts (Bagalkot and Bijapur) and sex (boys and girls) on Word Production test (WPT) ability of 9th standard students is found to be not significant

164. The main effect of types of management (government, aided and unaided) on Word Production test (WPT) ability of 9th standard students is found to be not significant

165. The interaction effect of districts (Bagalkot and Bijapur) and types of management (government, aided and unaided) on Word Production Test (WPT) ability of 9th standard students is found to be not significant

166. The main effect of location (urban and rural) on Word Production Test (WPT) ability of 9th standard students is found to be significant
167. The interaction effect of districts (Bagalkot and Bijapur) and location (urban and rural) on Word Production Test (WPT) ability of 9th standard students is found to be significant.

168. The 9th standard students of rural schools of Bagalkot district have higher Word Production Test (WPT) ability scores as compared to 9th standard students of urban schools of Bagalkot district.

169. The 9th standard students of rural schools of Bagalkot district have higher Word Production Test (WPT) ability scores as compared to 9th standard students of urban schools of Bijapur district.

170. The 9th standard students of rural schools of Bagalkot district have higher Word Production Test (WPT) ability scores as compared to 9th standard students of rural schools of Bijapur district.

171. The main effect of districts (Bagalkot and Bijapur) on Uses of Things Test (UTT) ability of 9th standard students is found to be significant.

172. The main effect of sex (boys and girls) on Uses of Things Test (UTT) ability of 9th standard students is found to be not significant.

173. The interaction effect of districts (Bagalkot and Bijapur) and sex (boys and girls) on Uses of Things Test (UTT) ability of 9th standard students is found to be not significant.

174. The main effect of types of management (government, aided and unaided) on Uses of Things Test (UTT) ability of 9th standard students is found to be significant.
175. The interaction effect of districts (Bagalkot and Bijapur) and types of management (government, aided and unaided) on Uses of Things Test (UTT) ability of 9th standard students is found to be not significant

176. The main effect of location (urban and rural) on Uses of Things Test (UTT) ability of 9th standard students is found to be significant

177. The interaction effect of districts (Bagalkot and Bijapur) and location (urban and rural) on Uses of Things Test (UTT) ability of 9th standard students is found to be significant

178. The 9th standard students of rural schools of Bagalkot district have higher Uses of Things Test (UTT) ability scores as compared to 9th standard students of urban schools of Bagalkot district

179. The 9th standard students of rural schools of Bagalkot district have higher Uses of Things Test (UTT) ability scores as compared to 9th standard students of urban schools of Bijapur district

180. The 9th standard students of rural schools of Bagalkot district have higher Uses of Things Test (UTT) ability scores as compared to 9th standard students of rural schools of Bijapur district

181. The main effect of districts (Bagalkot and Bijapur) on Similarity Test (ST) ability of 9th standard students is found to be not significant

182. The main effect of sex (boys and girls) on Similarity Test (ST) ability of 9th standard students is found to be not significant
183. The interaction effect of districts (Bagalkot and Bijapur) and sex (boys and girls) on Similarity Test (ST) ability of 9th standard students is found to be not significant.

184. The main effect of types of management (government, aided and unaided) on Similarity Test (ST) ability of 9th standard students is found to be significant.

185. The interaction effect of districts (Bagalkot and Bijapur) and types of management (government, aided and unaided) on Similarity Test (ST) ability of 9th standard students is found to be not significant.

186. The main effect of location (urban and rural) on Similarity Test (ST) ability of 9th standard students is found to be significant.

187. The interaction effect of districts (Bagalkot and Bijapur) and location (urban and rural) on Similarity Test (ST) ability of 9th standard students is found to be not significant.

188. The main effect of districts (Bagalkot and Bijapur) on Sentence Construction Test (SCT) ability of 9th standard students is found to be significant.

189. The main effect of sex (boys and girls) on Sentence Construction Test (SCT) ability of 9th standard students is found to be not significant.

190. The interaction effect of districts (Bagalkot and Bijapur) and sex (boys and girls) on Sentence Construction Test (SCT) ability of 9th standard students is found to be not significant.

191. The main effect of types of management (government, aided and unaided) on Sentence Construction Test (SCT) ability of 9th standard students is found to be not significant.
192. The interaction effect of districts (Bagalkot and Bijapur) and types of management (government, aided and unaided) on Sentence Construction Test (SCT) ability of 9th standard students is found to be not significant

193. The main effect of location (urban and rural) on Sentence Construction Test (SCT) ability of 9th standard students is found to be significant

194. The interaction effect of districts (Bagalkot and Bijapur) and location (urban and rural) on Sentence Construction Test (SCT) ability of 9th standard students is found to be not significant

195. The main effect of districts (Bagalkot and Bijapur) on Title Test (TT) ability of 9th standard students is found to be significant

196. The main effect of sex (boys and girls) on Title Test (TT) ability of 9th standard students is found to be not significant

197. The interaction effect of districts (Bagalkot and Bijapur) and sex (boys and girls) on Title Test (TT) ability of 9th standard students is found to be not significant

198. The main effect of types of management (government, aided and unaided) on Title Test (TT) ability of 9th standard students is found to be significant

199. The interaction effect of districts (Bagalkot and Bijapur) and types of management (government, aided and unaided) on Title Test (TT) ability of 9th standard students is found to be significant

200. The 9th standard students of government schools of Bagalkot district have higher Title Test (TT) ability scores as compared to 9th standard students of government schools of Bijapur district
201. The 9th standard students of aided schools of Bagalkot district have higher Title Test (TT) ability scores as compared to 9th standard students of government schools of Bijapur district.

202. The 9th standard students of aided schools of Bijapur district have higher Title Test (TT) ability scores as compared to 9th standard students of government schools of Bijapur district.

203. The 9th standard students of unaided schools of Bijapur district have higher Title Test (TT) ability scores as compared to 9th standard students of government schools of Bijapur district.

204. The main effect of location (urban and rural) on Title Test (TT) ability of 9th standard students is found to be significant.

205. The interaction effect of districts (Bagalkot and Bijapur) and location (urban and rural) on Title Test (TT) ability of 9th standard students is found to be not significant.

206. The main effect of districts (Bagalkot and Bijapur) on Elaboration Test (ET) ability of 9th standard students is found to be significant.

207. The main effect of sex (boys and girls) on Elaboration Test (ET) ability of 9th standard students is found to be not significant.

208. The interaction effect of districts (Bagalkot and Bijapur) and sex (boys and girls) on Elaboration Test (ET) ability of 9th standard students is found to be not significant.
209. The main effect of types of management (government, aided and unaided) on Elaboration Test (ET) ability of 9th standard students is found to be not significant.

210. The interaction effect of districts (Bagalkot and Bijapur) and types of management (government, aided and unaided) on Elaboration Test (ET) ability of 9th standard students is found to be significant.

211. The 9th standard students of government schools of Bagalkot district have higher Elaboration Test (ET) ability scores as compared to 9th standard students of government schools of Bijapur district.

212. The 9th standard students of government schools of Bagalkot district have higher Elaboration Test (ET) ability scores as compared to 9th standard students of aided schools of Bijapur district.

213. The 9th standard students of government schools of Bagalkot district have higher Elaboration Test (ET) ability scores as compared to 9th standard students of unaided schools of Bijapur district.

214. The 9th standard students of aided schools of Bagalkot district have higher Elaboration Test (ET) ability scores as compared to 9th standard students of government schools of Bijapur district.

215. The 9th standard students of aided schools of Bagalkot district have higher Elaboration Test (ET) ability scores as compared to 9th standard students of unaided schools of Bijapur district.
216. The 9th standard students of unaided schools of Bagalkot district have higher Elaboration Test (ET) ability scores as compared to 9th standard students of government schools of Bijapur district.

217. The 9th standard students of unaided schools of Bagalkot district have higher Elaboration Test (ET) ability scores as compared to 9th standard students of unaided schools of Bijapur district.

218. The 9th standard students of aided schools of Bijapur district have higher Elaboration Test (ET) ability scores as compared to 9th standard students of government schools of Bijapur district.

219. The main effect of location (urban and rural) on Elaboration Test (ET) ability of 9th standard students is found to be significant.

220. Interaction effect of districts (Bagalkot and Bijapur) and location (urban and rural) on Elaboration Test (ET) ability of 9th standard students is found to be not significant.

221. The Figural Classification (NFC) ability scores and Semantic Unit (NMU) ability, Symbolic Relation (NSR) ability, Symbolic System (NSS) ability, Symbolic Transformation (NST) ability, Semantic Classes (NMC) ability, Semantic Relations (NMR) ability, Semantic System (NMS) ability, Semantic Transformation (NMT) ability and Semantic Implications (NMI) ability scores of 9th standard students are dependent on each other.

222. The Semantic Unit (NMU) ability scores and Symbolic Relation (NSR) ability, Symbolic System (NSS) ability, Symbolic Transformation (NST) ability, Semantic Classes (NMC) ability, Semantic Relations (NMR) ability, Semantic System (NMS) ability, Semantic Transformation (NMT) ability and Semantic Implications (NMI) ability scores of 9th standard students are dependent on each other.
System (NMS) ability, Semantic Transformation (NMT) ability and Semantic Implications (NMI) ability scores of 9th standard students are dependent on each other

223. The Symbolic Relation (NSR) ability scores and Symbolic Transformation (NST) ability, Semantic Classes (NMC) ability, Semantic Relations (NMR) ability, Semantic System (NMS) ability, Semantic Transformation (NMT) ability and Semantic Implications (NMI) ability scores of 9th standard students are dependent on each other

224. The Symbolic System (NSS) ability scores and Semantic Classes (NMC) ability, Semantic Relations (NMR) ability, Semantic System (NMS) ability, Semantic Transformation (NMT) ability and Semantic Implications (NMI) ability scores of 9th standard students are dependent on each other

225. The Symbolic Transformation (NST) ability scores and Semantic Classes (NMC) ability, Semantic Relations (NMR) ability, Semantic System (NMS) ability, Semantic Transformation (NMT) ability and Semantic Implications (NMI) ability scores of 9th standard students are dependent on each other

226. The Semantic Classes (NMC) ability scores and Semantic Relations (NMR) ability, Semantic System (NMS) ability, Semantic Transformation (NMT) ability and Semantic Implications (NMI) ability scores of 9th standard students are dependent on each other

227. The Semantic Relations (NMR) ability scores and Semantic System (NMS) ability, Semantic Transformation (NMT) ability and Semantic Implications (NMI) ability scores of 9th standard students are dependent on each other
228. The Semantic Relations (NMR) ability scores and Semantic Transformation (NMT) ability and Semantic Implications (NMI) ability scores of 9th standard students are dependent on each other

229. The Semantic Relations (NMR) ability scores and Semantic Implications (NMI) ability scores of 9th standard students are dependent on each other

230. The Figural Classification (NFC) ability scores and Semantic Unit (NMU) ability, Symbolic Relation (NSR) ability, Symbolic System (NSS) ability, Symbolic Transformation (NST) ability, Semantic Classes (NMC) ability, Semantic Relations (NMR) ability, Semantic System (NMS) ability, Semantic Transformation (NMT) ability and Semantic Implications (NMI) ability scores of 9th standard students of Bagalkot district are dependent on each other

231. The Semantic Unit (NMU) ability scores and Symbolic Relation (NSR) ability, Symbolic System (NSS) ability, Symbolic Transformation (NST) ability, Semantic Classes (NMC) ability, Semantic Relations (NMR) ability, Semantic System (NMS) ability, Semantic Transformation (NMT) ability and Semantic Implications (NMI) ability scores of 9th standard students of Bagalkot district are dependent on each other

232. The Symbolic Relation (NSR) ability scores and Symbolic Transformation (NST) ability, Semantic Classes (NMC) ability, Semantic Relations (NMR) ability, Semantic System (NMS) ability, Semantic Transformation (NMT) ability and Semantic Implications (NMI) ability scores of 9th standard students of Bagalkot district are dependent on each other.
233. The Symbolic System (NSS) ability scores and Semantic Classes (NMC) ability, Semantic Relations (NMR) ability, Semantic System (NMS) ability, Semantic Transformation (NMT) ability and Semantic Implications (NMI) ability scores of 9th standard students of Bagalkot district are dependent on each other.

234. The Symbolic Transformation (NST) ability scores and Semantic Relations (NMR) ability, Semantic System (NMS) ability, Semantic Transformation (NMT) ability and Semantic Implications (NMI) ability scores of 9th standard students of Bagalkot district are dependent on each other.

235. The Semantic Classes (NMC) ability scores and Semantic System (NMS) ability, Semantic Transformation (NMT) ability and Semantic Implications (NMI) ability scores of 9th standard students of Bagalkot district are dependent on each other.

236. The Semantic Relations (NMR) ability scores and Semantic Transformation (NMT) ability and Semantic Implications (NMI) ability scores of 9th standard students of Bagalkot district are dependent on each other.

237. The Semantic Relations (NMR) ability scores and Semantic Transformation (NMT) ability and Semantic Implications (NMI) ability scores of 9th standard students of Bagalkot district are dependent on each other.

238. The Semantic Relations (NMR) ability scores and Semantic Implications (NMI) ability scores of 9th standard students of Bagalkot district are dependent on each other.
239. The Figural Classification (NFC) ability scores and Semantic Unit (NMU) ability, Symbolic Relation (NSR) ability, Symbolic System (NSS) ability, Symbolic Transformation (NST) ability, Semantic Classes (NMC) ability, Semantic Relations (NMR) ability, Semantic System (NMS) ability, Semantic Transformation (NMT) ability and Semantic Implications (NMI) ability scores of 9th standard students of Bijapur district are dependent on each other.

240. The Semantic Unit (NMU) ability scores and Symbolic Relation (NSR) ability, Symbolic System (NSS) ability, Symbolic Transformation (NST) ability, Semantic Classes (NMC) ability, Semantic Relations (NMR) ability, Semantic System (NMS) ability, Semantic Transformation (NMT) ability and Semantic Implications (NMI) ability scores of 9th standard students of Bijapur district are dependent on each other.

241. The Symbolic Relation (NSR) ability scores and Symbolic Transformation (NST) ability, Semantic Classes (NMC) ability, Semantic Relations (NMR) ability, Semantic System (NMS) ability, Semantic Transformation (NMT) ability and Semantic Implications (NMI) ability scores of 9th standard students of Bijapur district are dependent on each other.

242. The Symbolic System (NSS) ability scores and Semantic Classes (NMC) ability, Semantic Relations (NMR) ability, Semantic System (NMS) ability, Semantic Transformation (NMT) ability and Semantic Implications (NMI) ability scores of 9th standard students of Bijapur district are dependent on each other.
243. The Symbolic Transformation (NST) ability scores and Semantic Relations (NMR) ability, Semantic System (NMS) ability, Semantic Transformation (NMT) ability and Semantic Implications (NMI) ability scores of 9th standard students of Bijapur district are dependent on each other.

244. The Semantic Classes (NMC) ability scores and Semantic System (NMS) ability, Semantic Transformation (NMT) ability and Semantic Implications (NMI) ability scores of 9th standard students of Bijapur district are dependent on each other.

245. The Semantic Relations (NMR) ability scores and Semantic Transformation (NMT) ability and Semantic Implications (NMI) ability scores of 9th standard students of Bijapur district are dependent on each other.

246. The Semantic Relations (NMR) ability scores and Semantic Transformation (NMT) ability and Semantic Implications (NMI) ability scores of 9th standard students of Bijapur district are dependent on each other.

247. The Semantic Relations (NMR) ability scores and Semantic Implications (NMI) ability scores of 9th standard students of Bijapur district are dependent on each other.

248. The Word Production Test (WPT) ability scores and Uses of Things Test (UTT) ability, Similarity Test (ST) ability, Title Test (TT) ability and Elaboration Test (ET) scores of 9th standard students are dependent on each other.
249. The Uses of Things Test (UTT) ability scores and Similarity Test (ST) ability, Sentence Construction Test (SCT), Title Test (TT) ability and Elaboration Test (ET) scores of 9th standard students are dependent on each other.

250. The Similarity Test (ST) ability scores and Sentence Construction Test (SCT), Title Test (TT) ability and Elaboration Test (ET) scores of 9th standard students are dependent on each other.

251. The Sentence Construction Test (SCT) ability scores and Title Test (TT) ability and Elaboration Test (ET) scores of 9th standard students are dependent on each other.

252. The Title Test (TT) ability scores and Elaboration Test (ET) scores of 9th standard students are dependent on each other.

253. The Word Production Test (WPT) ability scores and Uses of Things Test (UTT) ability, Similarity Test (ST) ability, Sentence Construction Test (SCT), Title Test (TT) ability and Elaboration Test (ET) scores of 9th standard students of Bagalkot district are dependent on each other.

254. The Uses of Things Test (UTT) ability scores and Similarities Test (ST) ability, Sentence Construction Test (SCT), Title Test (TT) ability and Elaboration Test (ET) scores of 9th standard students of Bagalkot district are dependent on each other.

255. The Similarities Test (ST) ability scores and Sentence Construction Test (SCT), Title Test (TT) ability and Elaboration Test (ET) scores of 9th standard students of Bagalkot district are dependent on each other.
256. The Sentence Construction Test (SCT) ability scores and Title Test (TT) ability and Elaboration Test (ET) scores of 9th standard students of Bagalkot district are dependent on each other.

257. The Title Test (TT) ability scores and Elaboration Test (ET) scores of 9th standard students of Bagalkot district are dependent on each other.

258. The Word Production Test (WPT) ability scores and Uses of Things Test (UTT) ability, Similarities Test (ST) ability, Sentence Construction Test (SCT) Title Test (TT) ability and Elaboration Test (ET) scores of 9th standard students of Bijapur district are dependent on each other.

259. The Uses of Things Test (UTT) ability scores and Similarities Test (ST) ability, Title Test (TT) ability and Elaboration Test (ET) scores of 9th standard students of Bijapur district are dependent on each other.

260. The Similarities Test (ST) ability scores and Sentence Construction Test (SCT), Title Test (TT) ability and Elaboration Test (ET) scores of 9th standard students of Bijapur district are dependent on each other.

261. The Sentence Construction Test (SCT) ability scores and Elaboration Test (ET) scores of 9th standard students of Bijapur district are dependent on each other.

262. The Title Test (TT) ability scores and Elaboration Test (ET) scores of 9th standard students of Bijapur district are dependent on each other.
5.13 LIMITATIONS OF THE STUDY

The study has certain limitations. They are

The present study is limited to 9th standard students studying in Bagalkot and Bijapur district only. In the present study 9th standard students of some selected schools in Bagalkot and Bijapur districts have been selected as the sample for the investigation. The sample is restricted to 1008 boys and girls studying in 9th standard.

5.14 CONCLUSION

In the present study investigator intended to study the Guilford’s Convergent and Divergent Abilities of 9th standard students of Bagalkot and Bijapur districts.

The brain is the unquestioned seat of intellectual operations. Intelligence is inborn strength of an individuals and it is hereditary i.e., genetic. It is well known agreed that generally the hereditary basis of intelligence cannot be confined to one gene. The findings of many different intellectual abilities in terms of factors definitely call for multiple-gene contribution of hereditary to intelligence. Problems of biological inheritance of the conditions for intellectual status should now be cast in terms of the intellectual factors and studies along these lines are already appearing.

Luria (1936) raised the question of differential hereditary determinates of different memory abilities. His tests were for visual memory abilities and for parried associates memory involving picture word combinations, both when the connections were direct (logical & when they were indirect no logical implications). Comparing similarities of identical and fraternal twins in very small groups, he concluded that there was evidence of hereditary contribution to status in all three memory test
performance at the Preschool level (age five to seven), but only for visual memory at school ages (eleven to thirteen).

Vandenberg (no date) studied the Thurstone PMA test scores of identical and fraternal pairs of twins, trying out a new method that emphasized similarities of profiles. He correlated inter twin differences in pairs of PMA scores, comparing similarity derived correlations for the two kinds of twins. From the information he concluded that there was evidence of hereditary determination in the case of scores of number, space, verbal and word fluency, but not for Reasoning and Memory.

Thurstone, T. G. and Strandskew, H. H. (1953) studied the problem of inheritance in connection with certain special abilities by different method. In each test, they obtained the difference between scores made by each pair of twines, some identical and some fractured, with about fifty in each group (age not given), frequency distribution of the absolute differences on scaled scores were obtained; the distributions were dichotomized at the some points; and from the 2x2 contingency table resulting. Chi squares were computed of the 53 tests used, some are intellectual some perceptual and some psychomotor.

Studies of similarity of IQ's of identical twins, fraternal twins and other siblings have demonstrated both hereditary and environmental conditions contribution to variance among individuals with respect to general intellectual level. Studies of the problem of heredity and the IQ have been giving way to more refined investigations in terms individual factors.

No doubt about the intelligence as hereditary, but it should be nurtured in most congenial, cultural and proper educational environment. Guilford, J.P had made much
contribution to the structure of intellectual model and he has developed different intellectual abilities tests. In the present study investigator has prepared and standardized Convergent Abilities Tests on the basis of Guilford's type tests and investigator used the Divergent Abilities Tests of K. N. Sharma in the present study. The results are given here in brief.

Conclusions of the study can be summarized as follows:

1. In the present study, it has been found that the convergent abilities of Bagalkot district were better than the students of Bijapur district. It may be due the reason that the academic activities in Bagalkot district are better than Bijapur district.

2. Girl students secured higher mean score in their convergent ability tests as compared to boys. Such findings are indicative of the fact that, girls are more serious about their school activities.

3. Aided school students secured higher mean score in convergent ability tests than government and unaided school students. Better learning environment which prevails in aided schools are the main reasons for such result.

4. One of the interesting facts, which researcher has found that, overall means score in convergent ability tests of rural students is slightly higher than that of urban school students.

5. In the present study, it has been found that the divergent abilities among the students of Bagalkot district were better than the students of Bijapur district. It may be due the reason that there is an exposure of students to different academic programmes, cultural programmes and schools are also well reputed one in Bagalkot district than Bijapur district.
6. Girls and boys secured nearly equal mean score in their divergent ability tests. Such findings are indicative of the fact that, there is no discrimination between divergent ability.

7. Aided and unaided private school students secured higher mean score in Divergent ability tests than government school students. The reason for this may be private schools having all the facilities like, laboratory, good building, playground, library, function hall with good academic staff, who teaches well and conduct regular tests. The Students are high socio economic status than the students of Government schools. Better learning environment which prevails in private schools are the main reasons for such result.

One of the interesting facts, which researcher has found that, overall means score of divergent ability tests of rural students is higher than that of urban school students.

5.15 EDUCATIONAL IMPLICATIONS

There is a need to execute properly planned, deliberate and conscious efforts on the part of teachers, parents, members of the society, government, as well as the children themselves for the appropriate nurturing and role of stimulation of the convergent and divergent thinking urge and potential for the intellectual development among the students.

a). For Psychological Theory

i) Factor analysis is best designed to investigate ways in which individuals differ or to discover traits, and it also tells as how individuals are alike.
ii) Information regarding the factors and their interrelationship gives us understanding of functioning individuals.

iii) The five kinds of intellectual abilities in terms of operations is said to represent five ways of functioning.

iv) Varieties of products suggest a classification of basic forms of information or knowledge.

v) The kind of organism suggested by this way looking at intellect is that of an agency for dealing with information of various kinds in various ways.

vi) The concepts provided by the distinctions among intellectual abilities and their classification would be useful to future investigations of learning.

b. For Vocational Testing

i. The major implication for the assessment of intelligence is that to know about individuals intellectual resources thoroughly by multiple score approach which indicates connection with future vocational operations.

ii. The ability involving the use of figural information may be regarded as ‘concrete’ intelligence. The people who depend most upon these abilities deal with concrete things in their properties. Among these people are artists, musician, operators of machines and engineers.

iii. The abilities pertaining to symbolic and semantic content, there are two kinds of ‘abstract’ intelligence, symbolic abilities help in learning to recognize words, to spell, and to operate with numbers. Language and mathematics depend on it.
Semantic intelligence helps in understanding things in terms of verbal concept where learning of facts and ideas are essential.

iv. Behavioral columns is social intelligence. It helps in understanding some of the productive thinking about behavior. It possess considerable importance in connection with all those individuals who deal most with other people; teachers, law officials, social workers, therapists, politicians, statesman, etc.

c. For Education

i. According to factor theory, learning is learning of both specific and general skills. So every intellectual factor can be developed in individuals at least to some extent by learning.

ii. Each intellectual factor provides a goal to reach to aim. This implies choice of curriculum and the choice of invention of teaching methods that will most likely accomplish the desired results.

iii. There is great variety of abilities as revealed by the factorial exploration of intellect. It is seen that there is negligence in development of general intellectual skill because of which there is fall in the way of producing resourceful, creative graduates. As creative abilities appear to be concentrated in divergent-thinking category and to some extent in transformation category, so a better balance of training in these areas are essential.

iv. The rapidly moving events of the world in which people live force us to know about human intelligence. Humanity's peaceful pursuit of people
behavior; in turn depends upon understanding oneself, including one's intellectual resources.

Role of Teachers

1. Divergent thinking is a natural endowment, but needs stimulation and nourishment. Unless it is given proper training, education and opportunities for expression it would be wasted.

2. Though divergent thinking is not equal but it is universal. Every student possesses abilities but it is needed to manifest and produce.

3. Teachers should create an environment conducive for the full growth and development of the divergent thinking abilities of children.

4. Creative students differ from intelligent students in certain ways. The former would be rather radical and unconventional while the latter would be royal, obedient and very grade conscious.

5. To develop originality, flexibility, ideational fluency, self confidence, persistence, sensitiveness, may achieve through the following practices.

   Freedom to respond, opportunities for ego involvement, encouraging originality and flexibility, removal of hesitation and fear, providing appropriate opportunities and atmosphere for divergent thinking, developing healthy habits among children, using the creative resources of the community, Avoidance of blocks to divergent thinking, factors like conservation, faulty methods of teaching, unsympathetic treatment, fixed and rigid habits of work, anxiety and frustration,
Proper organization of the curriculum, reforms in the evaluation system and use of special techniques for fostering divergent thinking

**Brainstorming**

A group of explore ideas without judgment.

All ideas encouraged

Encouraging more idea, even unusual, they are not restricted and no evaluation. Use of teaching models and use of gaming techniques.

**Verbal stimulus**

Eg: 1) Name all the round thing.

2) Tell the different use of Knife.

3) All the ways in which cat and dog are a like.

e) **Non-verbal stimulus**

Example: 1. Build a cube

2. Complete a picture

3. Interpret patens.

**Suggestions to Parents**

Encourage articulation even if it sounds eccentric or ludicrous

Do not snub or ridicule for mistake.

Do not give wrong explorations when their questions baffle you.

Do not discipline too much, fixing specific hours for work and play.
Do not get upset over progress reports.

Children reject/ dislike harsh criticism.

Allow children to be autonomous. Do not breathe down their necks.

Build a small library at home, so that children could stock it with their pocket money.

Narrate biographies of eminent persons who could achieve a great deal despite adversities.

Do not compare brothers and sisters.

Provide opportunities for outings during weekends.

Allow a child to be a child.

5.16 SUGGESTIONS FOR FURTHER RESEARCH

1. The present study can be applied to the students of other medium also.

2. This study was restricted to comparison of attainment of Guilford’s convergent and divergent abilities of IX standard students. Similar studies can be conducted for students studying in different standards.

3. The methods of testing followed in the study were only in the written form. It may be interesting to include auditory forms of testing in study of Guilford’s factors.
4. The Guilford’s tests for various factors may be developed on the basis of various curricular areas.

5. A comparative study of Guilford’s convergent and divergent abilities of students studying in Kannada and English Medium schools may be made.

6. A comparative study of Guilford’s convergent and divergent abilities of students studying in residential and non residential schools may be conducted.

7. A comparative study of Guilford’s convergent and divergent abilities of students studying with State and CBSE curriculum may be undertaken.

8. A study could be planned to obtain a long picture through a longitudinal follow up method to evaluate the development of various Guilford’s convergent and divergent abilities.

9. To make a comparative study pattern of Guilford’s convergent and divergent abilities of students belonging to various tribes found in Bagalkot and Bijapur districts.

10. Some more tests can be constructed for other factors of S.I. Model.

11. To make a comparative study pattern of Guilford’s factors /abilities using profiles of factor performance of selected students.

12. The correlation of divergent production abilities with other related factors like intelligence, anxiety of students, and sociability of the students can be studied.

13. Further study can be conducted by taking VIII and IX standard students also.

14. More elaborate studies taking all age groups starting from preprimary to collegiate level may be conducted to trace out the developmental trends of divergent production abilities with age.