CHAPTER 5

SUMMARY AND CONCLUSIONS

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THE STUDY IN RETROSPECT

Teachers are the builders of the society. It is their responsibility to develop their personality suitable to their environment. The influence of teachers’ personality on his teaching performance has been a fertile area of educational research during the past ten decades. How the personality of the teacher interacts with his teaching ability is a critical factor in teacher effectiveness. Identification of the personality traits associated with success in teaching a particular subject has not received the attention of researchers.

The topic for the present investigation has been stated as “Personality and Teacher Effectiveness – An Analytical study on Mathematics Teachers”. The major objectives of the study were to construct, and standardize ‘A Test Battery of Personality Factors’, and ‘An Index of Teacher Effectiveness’, to find out the difference if any, in the selected ten personality variables, and teacher effectiveness based on sex, locality, teaching experience, type of management, religion, and
community, and also to find out the correlation between teacher effectiveness and ten personality variables and finally to elicit the common factor yielded by ten personality variables, and teacher effectiveness.

The major hypotheses formulated for the study were as follows:

a. There will be significant difference between Mathematics teachers categorized on the basis of sex, locality, teaching experience, type of management, religion, and community on the ten variables of personality, namely, Quality of life, Teacher attitude, Critical thinking, Leadership style, Gregariousness, Objectivity, Stability, Autonomy, Endurance, and Emotional adjustment.

b. There will be significant difference between various categories of Mathematics teachers classified on the basis of sex, locality, teaching experience, type of management, religion, and community on teacher effectiveness.

c. There will be positive, and significant correlations among the ten personality variables under study.

d. The variable teacher effectiveness will correlate positively and significantly with the ten personality variables under study.

e. Factor analysis of the ten personality variables and teacher effectiveness will yield significant factors with moderate or high loadings of the variables on it.
The investigator used survey method, and the sample of the study consisted of three hundred Mathematics teachers teaching in high school classes from two districts (Thirunelveli and Kanyakumari) of Tamilnadu (147 male Mathematics teachers and 153 female Mathematics teachers). The Mathematics teachers were selected on the basis of sex, locality, teaching experience, type of management, religion, and community.

The important variables selected for the study were ten personality variables namely Quality of life, Teacher attitude, Critical thinking, Leadership style, Gregariousness, Objectivity, Stability, Autonomy, Endurance, and Emotional adjustment as predictor variables and Teacher effectiveness as criterion variable.

The following were the tools used for measuring the above variables:

1. A Test Battery of Personality Factors
2. An Index of Teacher Effectiveness

In addition to these, a Personal Information Schedule was also used. The tools were administered individually, and the relevant data were collected. Scoring was done with the help of scoring key as per instructions. The data were tabulated and analysed using computer facilities.

The major statistical techniques used for analyzing data were t-test, Anova followed by Scheffe procedure, Pearson product moment method of correlation ($r$), and Factor analysis.
MAJOR FINDINGS

The following were the major findings of the present investigation.

1. There existed significant difference between male and female Mathematics teachers on the personality variable Quality of life ($t = 6.32$). Male Mathematics teachers possessed better Quality of life than female Mathematics teachers.

2. Significant difference was found between male and female Mathematics teachers on the personality variable Teacher attitude ($t = 6.27$). Male Mathematics teachers possessed better Teacher attitude than female Mathematics teachers.

3. There existed significant difference between male and female Mathematics teachers on the personality variable Critical thinking ($t = 2.99$). Male Mathematics teachers showed higher level of Critical thinking than female Mathematics teachers.

4. Significant difference was noticed between male and female Mathematics teachers on the personality variable Leadership style ($t = 6.54$). Male Mathematics teachers possessed better Leadership style than female Mathematics teachers.

5. There existed significant difference between male and female Mathematics teachers on the personality variable Gregariousness.
Male Mathematics teachers possessed more gregariousness than female Mathematics teachers.

6. There existed significant difference between male and female Mathematics teachers on the personality variable Objectivity (t = 5.02). Male Mathematics teachers were more objective than female Mathematics teachers.

7. Significant difference was noticed between male and female Mathematics teachers on the personality variable Stability (t = 5.26). Male Mathematics teachers were more stable than female Mathematics teachers.

8. There existed significant difference between male and female Mathematics teachers on the personality variable Autonomy (t = 6.92). Male Mathematics teachers showed higher level of Autonomy than female Mathematics teachers.

9. Significant difference was found between male and female Mathematics teachers on the personality variable Endurance (t = 4.41). Male Mathematics teachers showed more Endurance than female Mathematics teachers.

10. There existed no significant difference between male and female Mathematics teachers on the personality variable Emotional adjustment (t = 1.90).
11. No significant difference was noticed between male and female Mathematics teachers on the variable Teacher effectiveness (t = 0.28).

12. There existed significant difference between urban and rural Mathematics teachers on the personality variable Quality of life (t = 4.11). Urban Mathematics teachers possessed better Quality of life than rural Mathematics teachers.

13. There existed significant difference between urban and rural Mathematics teachers on the personality variable Teacher attitude (t = 4.14). Urban Mathematics teachers showed better Teacher attitude than rural Mathematics teachers.

14. Significant difference was noticed between urban and rural Mathematics teachers on the personality variable Critical thinking (t = 2.80). Urban Mathematics teachers showed higher level of Critical thinking than rural Mathematics teachers.

15. There existed significant difference between urban and rural Mathematics teachers on the personality variable Leadership style (t = 3.86). Urban Mathematics teachers possessed better Leadership styles than rural Mathematics teachers.

16. There existed significant difference between urban and rural Mathematics teachers on the personality variable Gregariousness (t = 4.28). Urban Mathematics teachers showed more gregariousness than rural Mathematics teachers.
17. Significant difference was found between urban and rural Mathematics teachers on the personality variable Objectivity (t – 5.06). Urban Mathematics teachers were more objective than rural Mathematics teachers.

18. There existed significant difference between urban and rural Mathematics teachers on the personality variable Stability (t – 4.60). Urban Mathematics teachers showed more Stability than rural Mathematics teachers.

19. Significant difference was noticed between urban and rural Mathematics teachers on the personality variable Autonomy (t – 3.76). Urban Mathematics teachers showed higher level of Autonomy than rural Mathematics teachers.

20. There existed significant difference between urban and rural Mathematics teachers on the personality variable Endurance (t – 3.56). Urban Mathematics teachers existed more Endurance than rural Mathematics teachers.

21. There existed significant difference between urban and rural Mathematics teachers on the personality variable Emotional adjustment (t – 3.46). Urban Mathematics teachers showed more Emotional adjustment than rural Mathematics teachers.

22. No significant difference was noticed between urban and rural Mathematics teachers on the variable Teacher effectiveness (t – 0.51).
23. There existed significant difference between Mathematics teachers having experience above ten years and below ten years on the personality variable Quality of life (t = 2.70). More experienced Mathematics teachers possessed better Quality of life than less experienced Mathematics teachers.

24. There existed significant difference between Mathematics teachers having experience above ten years and below ten years on the personality variable Teacher attitude (t = 3.75). More experienced Mathematics teachers showed better Teacher attitude than less experienced Mathematics teachers.

25. Significant difference was found between Mathematics teachers having experience above ten years and below ten years on the personality variable Critical thinking (t = 2.03). More experienced Mathematics teachers showed higher level of Critical thinking than less experienced Mathematics teachers.

26. There existed significant difference between Mathematics teachers having experience above ten years and below ten years on the personality variable Leadership style (t = 2.96). More experienced Mathematics teachers possessed better Leadership style than less experienced Mathematics teachers.

27. There existed significant difference between Mathematics teachers having experience above ten years and below ten years on the personality variable Gregariousness (t = 2.49). More experienced
Mathematics teachers showed more gregariousness than less experienced Mathematics teachers.

28. Significant difference was noticed between Mathematics teachers having experience above ten years and below ten years on the personality variable Objectivity ($t = 2.42$). More experienced Mathematics teachers showed more Objectivity than less experienced Mathematics teachers.

29. There existed significant difference between Mathematics teachers having experience above ten years and below ten years on the personality variable Stability ($t = 4.21$). More experienced Mathematics teachers possessed more Stability than less experienced Mathematics teachers.

30. There existed significant difference between Mathematics teachers having experience above ten years and below ten years on the personality variable Autonomy ($t = 2.25$). More experienced Mathematics teachers showed higher level of Autonomy than less experienced Mathematics teachers.

31. No significant difference was noticed between Mathematics teachers having experience above ten years and below ten years on the personality variable Endurance ($t = 1.03$).

32. There existed significant difference between Mathematics teachers having experience above ten years and below ten years on the personality variable Emotional adjustment ($t = 3.05$). More
experienced Mathematics teachers showed better Emotional adjustment than less experienced Mathematics teachers.

33. No significant difference was noted between Mathematics teachers having experience above ten years and below ten years on the variable Teacher effectiveness (t – 1.86).

34. There existed no significant difference between private and government school Mathematics teachers on the personality variable Quality of life (t – 1.03).

35. Significant difference was noticed between private and government school Mathematics teachers on the personality variable Teacher attitude (t – 2.25). Private school Mathematics teachers showed better Teacher attitude than government school Mathematics teachers.

36. There existed significant difference between private and government school Mathematics teachers on the personality variable Critical thinking (t – 2.38). Private school Mathematics teachers showed higher level of Critical thinking than government school Mathematics teachers.

37. No significant difference was noted between private and government school Mathematics teachers on the personality variable Leadership Style (t – 1.64).

38. There existed no significant difference between private and government school Mathematics teachers on the personality variable Gregariousness (t – 1.00).
39. No significant difference was noted between private and government school Mathematics teachers on the personality variable Objectivity ($t = 0.912$).

40. There existed no significant difference between private and government school Mathematics teachers on the personality variable Stability ($t = 1.74$).

41. There existed no significant difference between private and government school Mathematics teachers on the personality variable Autonomy ($t = 0.695$).

42. No significant difference was found between private and government school Mathematics teachers on the personality variable Endurance ($t = 0.758$).

43. There existed no significant difference between private and government school Mathematics teachers on the personality variable Emotional adjustment ($t = 1.04$).

44. There existed significant difference between private and government school Mathematics teachers on the variable Teacher effectiveness ($t = 4.432$). Private school Mathematics teachers’ teaching was more effective than that of government school Mathematics teachers.

45. There existed no significant difference between Mathematics teachers belonging to various religions on the personality variable Quality of life ($F = 1.502$, Df = 2,297).
46. There existed significant difference between Mathematics teachers belonging to various religions on the personality variable Teacher attitude (F = 3.218, Df = 2,297). Hindu Mathematics teachers possessed more Teacher attitude compared to Christian, and Muslim Mathematics teachers.

47. There existed no significant difference between Mathematics teachers belonging to various religions on the personality variable Critical thinking (F = 1.819, Df = 2,297).

48. No significant difference was noticed between Mathematics teachers belonging to various religions on the personality variable Leadership style (F = 1.588, Df = 2,297).

49. There existed no significant difference between Mathematics teachers belonging to various religions on the personality variable Gregariousness (F = 2.588, Df = 2,297).

50. There existed no significant difference between Mathematics teachers belonging to various religions on the personality variable Objectivity (F = 1.156, Df = 2,297).

51. There existed significant difference between Mathematics teachers belonging to various religions on the personality variable Stability (F = 4.836, Df = 2,297). Hindu Mathematics teachers showed more Stability compared to Christian and Muslim Mathematics teachers.
52. No significant difference was noticed between Mathematics teachers belonging to various religions on the personality variable Autonomy (F – 0.908, Df – 2,297).

53. There existed significant difference between Mathematics teachers belonging to various religions on the personality variable Endurance (F – 3.407, Df – 2,297). Hindu Mathematics teachers possessed more Endurance compared to Christian and Muslim Mathematics teachers.

54. There existed no significant difference between Mathematics teachers belonging to various religions on the personality variable Emotional adjustment (F – 1.949, Df – 2,297).

55. There existed significant difference between Mathematics teachers belonging to various religions on the variable Teacher effectiveness (F – 12.312, Df – 2,297). Hindu Mathematics teachers’ teaching was more effective compared to Christian and Muslim Mathematics teachers.

56. Significant difference was noted between Mathematics teachers belonging to various communities on the personality variable Quality of life (F – 6.85, Df – 2,297). Christian Mathematics teachers possessed better quality of life compared to Hindu and Muslim Mathematics teachers.

57. There existed significant difference between Mathematics teachers belonging to various communities on the personality variable
Teacher attitude (F – 6.70, Df – 2,297). Hindu Mathematics teachers possessed better Teacher attitude compared to Christian and Muslim Mathematics teachers.

58. There existed significant difference between Mathematics teachers belonging to various communities on the personality variable Critical thinking (F – 6.07, Df – 2,297). Hindu Mathematics teachers showed higher level of Critical thinking compared to Christian and Muslim Mathematics teachers.

59. Significant difference was noticed between Mathematics teachers belonging to various communities on the personality variable Leadership style (F – 4.21, Df – 2,297). Christian Mathematics teachers showed better Leadership styles compared to Hindu and Muslim Mathematics teachers.

60. There existed significant difference between Mathematics teachers belonging to various communities on the personality variable Gregariousness (F – 4.24, Df – 2,297). Christian Mathematics teachers showed more Gregariousness compared to Hindu and Muslim Mathematics teachers.

61. There existed significant difference between Mathematics teachers belonging to various communities on the personality variable Objectivity (F – 9.38, Df – 2,297). Hindu Mathematics teachers showed more Objectivity compared to Christian and Muslim Mathematics teachers.
62. Significant difference was noted between Mathematics teachers belonging to various communities on the personality variable Stability ($F = 4.47$, $Df = 2,297$). Hindu Mathematics teachers showed more Stability compared to Christian and Muslim Mathematics teachers.

63. There existed significant difference between Mathematics teachers belonging to various communities on the personality variable Autonomy ($F = 7.76$, $Df = 2,297$). Christian Mathematics teachers showed higher level of Autonomy compared to Hindu and Muslim Mathematics teachers.

64. There existed no significant difference between Mathematics teachers belonging to various communities on the personality variable Endurance ($F = 2.82$, $Df = 2,297$).

65. No significant difference was noticed between Mathematics teachers belonging to various communities on the personality variable Emotional adjustment ($F = 0.242$, $Df = 2,297$).

66. There existed significant difference between Mathematics teachers belonging to various communities on the variable Teacher effectiveness ($F = 3.29$, $Df = 2,297$). Christian Mathematics teachers’ teaching was more effective compared to Hindu and Muslim Mathematics teachers.

67. The correlations among Quality of life and the other personality variables were significant at 0.01 level. The details are as follows:
(a) The correlations between Quality of life and critical thinking was low ($r = +0.270$).

(b) The correlations between Quality of life and other personality variables (i) Teacher attitude ($r = +0.587$), (ii) Leadership style ($r = +0.582$), (iii) Gregariousness ($r = +0.649$), (iv) Objectivity ($r = +0.505$), (v) Stability ($r = +0.464$), (vi) Autonomy ($r = +0.660$), (vii) Endurance, ($r = +0.409$), and (viii) Emotional adjustment ($r = +0.478$) were marked (or) substantial.

68. The correlations between Teacher attitude and other personality variables were significant at 0.01 level. The details are as follows:

(a) The correlations between Teacher attitude and other personality variables (i) Critical thinking ($r = +0.217$), (ii) Emotional adjustment ($r = +0.242$) were low.

(b) The correlations between Teacher attitude and other personality variables (i) Quality of life ($r = +0.587$), (ii) Objectivity ($r = +0.615$), (iii) Endurance ($r = +0.577$) were marked (or) substantial.

(c) The correlation between Teacher attitude and other personality variables (i) Leadership style ($r = +0.770$), (ii) Gregariousness ($r = +0.863$), (iii) Stability ($r = +0.764$), (iv) Autonomy ($r = +0.802$) were high.

69. The correlations between Critical thinking and other personality variables were significant at 0.01 level. The details are as follows:

(a) The correlation between Critical thinking and all other personality variables (i) Quality of life ($r = +0.270$), (ii) Teacher
attitude ($r = +0.217$), (iii) Leadership style ($r = +0.283$), (iv) Gregariousness ($r = +0.235$), (v) Objectivity ($r = +0.225$), (vi) Stability ($r = +0.202$), (vii) Autonomy ($r = +0.234$), (viii) Endurance ($r = +0.329$), (ix) Emotional adjustment ($r = +0.272$) were low.

70. The correlations between Leadership style and other personality variables were significant at 0.01 level. The details are as follows:

(a) The correlations between Leadership style and other personality variables (i) Critical thinking ($r = +0.283$), (ii) Emotional adjustment ($r = +0.241$) were low.

(b) The correlations between Leadership style and other personality variables (i) Quality of life ($r = +0.582$), (ii) Objectivity ($r = +0.626$), (iii) Endurance ($r = +0.588$) were marked (or) substantial.

(c) The correlations between Leadership style and other personality variables (i) Teacher attitude ($r = +0.770$), (ii) Gregariousness ($r = +0.863$), (iii) Stability ($r = +0.730$), (iv) Autonomy ($r = +0.850$) were high.

71. The correlations between Gregariousness and other personality variables were significant at 0.01 level. The details are as follows:

(a) The correlations between Gregariousness and other personality variables (i) Critical thinking ($r = +0.235$), (ii) Emotional adjustment ($r = +0.305$) were low.
(b) The correlations between Gregariousness and other personality variables (i) Quality of life ($r = +0.649$), (ii) Objectivity ($r = +0.558$), (iii) Endurance ($r = +0.606$) were marked (or) substantial.

(c) The correlations between Gregariousness and other personality variables (i) Teacher attitude ($r = +0.863$), (ii) Leadership style ($r = +0.863$), (iii) Stability ($r = +0.723$), (iv) Autonomy ($r = +0.832$) were high.

72. The correlations between Objectivity and other personality variables were significant at 0.01 level. The details are as follows:

(a) The correlations between Objectivity and other personality variables (i) Critical thinking ($r = +0.225$), (ii) Endurance ($r = +0.396$), (iii) Emotional adjustment ($r = +0.219$) were low.

(b) The correlations between Objectivity and other personality variables (i) Quality of life ($r = +0.505$), (ii) Teacher attitude ($r = +0.615$), (iii) Leadership style ($r = +0.626$), (iv) Gregariousness ($r = +0.558$), (v) Stability ($r = +0.611$) were marked (or) substantial.

(c) The correlation between Objectivity and Autonomy ($r = +0.737$) was high.

73. The correlations between Stability and other personality variables were significant at 0.01 level. The details are as follows:

(a) The correlations between Stability and other personality variables (i) Critical thinking ($r = +0.202$), (ii) Emotional adjustment ($r = +0.263$) were low.
(b) The correlations between Stability and other personality variables (i) Quality of life \((r = +0.464)\), (ii) Objectivity \((r = +0.611)\), (iii) Endurance \((r = +0.410)\) were marked (or) substantial.

(c) The correlations between Stability and other personality variables (i) Teacher attitude \((r = +0.764)\), (ii) Leadership style \((r = +0.730)\), (iii) Gregariousness \((r = +0.723)\), (iv) Autonomy \((r = +0.751)\) were high.

74. The correlations between Autonomy and other personality variables were significant at 0.01 level. The details are as follows:

(a) The correlations between Autonomy and other personality variables (i) Critical thinking \((r = +0.234)\), (ii) Emotional adjustment \((r = +0.289)\) were low.

(b) The correlations between Autonomy and other personality variables (i) Quality of life \((r = +0.660)\), (ii) Endurance \((r = +0.614)\), were marked (or) substantial.

(c) The correlations between Autonomy and other personality variables (i) Teacher attitude \((r = +0.802)\), Leadership style \((r = +0.850)\), (iii) Gregariousness \((r = +0.832)\), (iv) Objectivity \((r = +0.737)\), Stability \((r = +0.751)\) were high.

75. The correlations between Endurance and other personality variables were found to be significant at 0.01 level. The details are as follows:

(a) The correlations between Endurance and other personality variables (i) Critical thinking \((r = 0.329)\), (ii) Objectivity \((r = +0.396)\), were low.
(b) The correlations between Endurance and other personality variables (i) Quality of life \( (r = +0.409) \), (ii) Teacher attitude \( (r = +0.577) \), (iii) Leadership style \( (r = +0.588) \), (v) Gregariousness \( (r = +0.606) \), (v) Stability \( (r = +0.410) \), (vi) Autonomy \( (r = +0.614) \), (vii) Emotional adjustment \( (r = +0.404) \) were marked (or) substantial.

76. The correlations between Emotional adjustment and other personality variables were significant at 0.01 level. The details are as follows:

(a) The correlations between Emotional adjustment and other personality variables (i) Teacher attitude \( (r = +0.242) \), (ii) Critical thinking \( (r = 0.272) \), (iii) Leadership style \( (r = +0.241) \), (iv) Gregariousness \( (r = +0.305) \), (v) Objectivity \( (r = +0.219) \), (vi) Stability \( (r = +0.263) \), (vii) Autonomy \( (r = +0.289) \) were low.

(b) The correlations between Emotional adjustment and other personality variables (i) Quality of life \( (r = +0.478) \), (ii) Endurance \( (r = 0.404) \) were marked (or) substantial.

77. The correlations between Teacher effectiveness and the ten personality variables were significant at 0.01 level. The details are as follows:

(a) The correlations between Teacher effectiveness and personality variables (i) Teacher attitude \( (r = +0.251) \), (ii) Critical thinking \( (r = +0.267) \), (iii) Leadership style \( (r = +0.301) \), (iv) Gregariousness \( (r = 0.337) \), (v) Stability \( (r = 0.229) \), (vi) Autonomy
(r = +0.288), (vii) Endurance (r = 0.205), (viii) Emotional adjustment (r = +0.216) were low.

(b) The correlations among Teacher effectiveness and personality variables (i) Quality of life (r = +0.415), (ii) Objectivity (r = +0.563) were marked (or) substantial.

78. Factor analysis of the ten personality variables and the variable Teacher effectiveness yielded three significant factors with moderate or high loadings of the variables on it.

I. Factor 1: Diplomatic Personality

The variables with significant loadings on the factor were: Gregariousness (0.932), Leadership style (0.924), Autonomy (0.919), Teacher attitude (0.916), Stability (0.824), Objectivity (0.728), Quality of life (0.651), and Endurance (0.596).

II. Factor 2: Teacher Integrity

The variables with significant loadings on the factor were: Teacher effectiveness (0.867), Emotional adjustment (0.539), Objectivity (0.461), and Quality of life (0.458).

III. Factor 3: Mature Adaptability

The variables with significant loadings on the factor were: Critical thinking (0.842), Emotional adjustment (0.581), and Endurance (0.563).
CONCLUSIONS

The following are the conclusions based on the above findings.

(a) There existed significant differences between male and female Mathematics teachers on the nine variables of personality namely, Quality of life, Teacher attitude, Critical thinking, Leadership style, Gregariousness, Objectivity, Stability, Autonomy, and Endurance. Male Mathematics teachers possessed better Quality of life, Teacher attitude, Critical thinking, Leadership style, Gregariousness, Objectivity, Stability, Autonomy, and Endurance compared to female Mathematics teachers. It is concluded that sex plays a vital role in the personality of Mathematics teachers.

(b) There existed significant differences between urban and rural Mathematics teachers on the ten variables of personality namely, Quality of life, Teacher attitude, Critical thinking, Leadership style, Gregariousness, Objectivity, Stability, Autonomy, Endurance, and Emotional adjustment. Urban Mathematics teachers showed better position in all the ten personality variables compared to rural Mathematics teachers. Locality also plays a major role on the personality of Mathematics teachers.

(c) Significant difference was noticed between Mathematics teachers having experience above ten years and experience below ten years on the nine variables of personality namely, Quality of life, Teacher attitude, Critical thinking, Leadership style, Gregariousness, Objectivity, Stability, Autonomy, and Emotional adjustment. Mathematics teachers having experience above ten years possessed
better Quality of life, Teacher attitude, Critical thinking, Leadership style, Gregariousness, Objectivity, Stability, Autonomy, and Emotional adjustment compared to Mathematics teachers having experience below ten years. The teaching experience influences the personality of Mathematics teachers.

(d) There existed significant difference between private and government school Mathematics teachers only on the two variables of personality namely, Teacher attitude, and Critical thinking. Type of management has no influence on the personality of Mathematics teachers.

(e) There existed significant differences between Mathematics teachers of various religions (Hindu, Christian, and Muslim) only on three variables of personality namely, Teacher attitude, Stability, and Endurance. Religion has no influence on the personality of Mathematics teachers.

(f) There existed significant difference between Mathematics teachers belonging to various communities on the eight variables of personality namely, Quality of life, Teacher attitude, Critical thinking, Leadership style, Gregariousness, Objectivity, Stability and Autonomy. Community influences the personality of Mathematics teachers.

Out of the six background variables selected, namely, sex, locality, teaching experience, type of management, religion, and community, four variables, namely, sex, locality, teaching experience,
and community influence the personality of Mathematics teachers. The other two variables, type of management and religion have no significant influence in the personality of Mathematics teachers (Type of management influences only two personality variables, namely, Teacher attitude and Critical thinking and religion influences four personality variables, namely, Teacher attitude, Stability, Endurance and Teacher effectiveness).

2.(a) There existed no significant differences between (i) male and female Mathematics teachers, (ii) urban and rural teachers and (iii) teachers having experience above ten years and below ten years on the variable Teacher effectiveness.

(b) There existed significant difference between Mathematics teachers belonging to (i) different type of management (ii) various religions and (iii) various communities on the variable Teacher effectiveness.

Out of the six background variables selected, type of management, religion, and community of Mathematics teachers influence Teacher effectiveness. Sex, locality, and teaching experience, has no influence on the Teacher effectiveness of Mathematics teachers.

3. There existed positive and significant correlations among all the ten personality variables, namely Quality of life, Teacher attitude, Critical thinking, Leadership style, Gregariousness, Objectivity, Stability, Autonomy, Endurance, and Emotional adjustment.

4. The variable Teacher effectiveness correlated positively and significantly with all the ten personality variables, namely, Quality

5. Factor analysis of the ten personality variables and the variable Teacher effectiveness yielded three significant factors with moderate or high loadings of the variable, on it. These factors were identified as Diplomatic Personality, Teacher Integrity, and Mature Adaptability.

The conclusions presented above on the basis of the results and the test of tenability of the hypotheses clearly indicate that teacher effectiveness has a significant interrelationship with all the ten personality variables studied in one way or the other in the case of Mathematics teacher. This points out the need for focusing on the implications of the study on various areas related to teaching profession. The details are presented in the next section.

EDUCATIONAL IMPLICATIONS OF THE STUDY

Mathematics is generally considered as a difficult subject. Some students have a fear, and dislike towards Mathematics. The dislike towards Mathematics, in turn, results in their poor achievement. The specific backwardness in Mathematics is because of its abstractness and poor methods of teaching. The present investigation extracted the essential personality factors which contribute to the effective teaching in Mathematics, namely, Diplomatic Personality, Teacher Integrity and
Mature Adaptability. If the Mathematics teachers possess the above said personality factors, Mathematics teaching can be made more effective and thus dislike, fear and poor achievement of students in Mathematics can be avoided.

The identification of the three personality factors essential for effective teaching in Mathematics and the other findings of the investigation will contribute to the present day Mathematics education in the following ways:

- For the selection of students to teacher education programmes.
- In recruitment of Mathematics teachers for high schools.
- While framing curriculum for teacher education programmes, due weightage should be given for the development of above personality factors in student teachers.
- Inservice, and preservice programmes should structure personality development programmes for Mathematics teachers.
- To set guidelines for professional development of Mathematics teachers.
- To provide awareness to the policy makers, curriculum planners, resource persons, teacher educators, and head of the institutions regarding the essential personality factors contributing effective teaching in Mathematics.
- Mathematics teachers themselves can be made aware about the need of inculcating essential personality factors for improving their teacher effectiveness.
The following areas are suggested for further research in the field:

1. The present investigation made use of ten personality variables. It is suggested that further studies can be conducted using more personality variables.

2. In addition to rating by the investigator, superior evaluation, peer evaluation, and student evaluation can be used for measuring teacher effectiveness in future studies.

3. Studies can be conducted by using student achievement as a measure of teacher effectiveness instead of rating by the investigator.

4. The study can be replicated using Mathematics teachers teaching at various levels – higher secondary, and college level.

5. The study can be replicated using prospective teachers as sample.

6. Studies can be conducted on teachers teaching various subjects using the variables of the present investigation.

7. Studies can be conducted to find out the effect of cognitive variables related with teacher effectiveness in general, and in specific subjects.
8. Studies to find out the general and instructional teacher behaviour related with teacher effectiveness in specific subjects areas can be conducted.

On the whole, it may be stated that the investigator would feel gratified if the implications of the study are considered by those concerned, and further studies in the area be conducted by future researchers on Mathematics teaching.