CHAPTER – III

METHOD AND PROCEDURE

3.1. INTRODUCTION

Research is an art of scientific investigation. It is actually a voyage of discovery. Research is thus an original contribution to the existing stock of knowledge making for its advancement. ¹John W. Best (1995) states “Research is the systematic and objective analysis and recording of controlled observations that may lead to development of generalizations, principles or theories resulting in prediction and possibly ultimate control of events” (P. 13).

The ultimate goal of any research work is to find out the cause effect relationship between variables. Educational research is concerned with the development and testing of theories of how students behave in an education setting. The success of an educational research depends on the systematic adoption of scientific method.

3.2. METHOD ADOPTED FOR THE PRESENT STUDY

For the present study, the investigator has adopted the survey method. Survey research is the most widely used non-experimental type of educational research. A social survey is a method of obtaining large amounts of data usually in a statistical form from a large number of people in a relatively short time. It is used in variety of situations to investigate a large number of different research problems. It involves various steps like (a) Planning, (b) Development and Application of Sampling Plan, (c) Construction of the Research Tool, (d) Data Collection, (e) Tabulation of Data, (f) Data Analysis, and (g) Conclusion and Reporting.

3.3. TITLE OF THE STUDY

TEACHER EFFECTIVENESS OF POSTGRADUATE TEACHERS TEACHING MATHEMATICS IN HIGHER SECONDARY SCHOOLS IN TIRUNELVELI REVENUE DISTRICT
3.4. OPERATIONAL DEFINITIONS

Teacher Effectiveness

By this, the investigator means the score obtained on Teacher Effectiveness Inventory developed Dr. (Mrs.) Sweetlin (1998).

Postgraduate Teachers Teaching Mathematics

By this, the investigator means the teachers having postgraduate degree in Mathematics with B.Ed. qualification working in higher secondary schools.

Tirunelveli Revenue District

Tirunelveli Revenue District is one of the thirty-two revenue districts of Tamilnadu State. This district consists of three educational districts namely Tirunelveli Central Educational District, Cheranmahadevi Educational District and Tenkasi Educational District.

3.5. OBJECTIVES

PART – I: TEACHER EFFECTIVENESS OF PG TEACHERS TEACHING MATHEMATICS

1. To find the level of teacher effectiveness of PG teachers teaching mathematics in higher secondary schools in Tirunelveli Revenue District and its dimensions.
2. To find the significance of correlation between teacher effectiveness of PG mathematics teachers and their professional affiliation, job satisfaction and manifest anxiety.
3. To find the predictability of professional affiliation, job satisfaction and manifest anxiety with regard to teacher effectiveness of PG mathematics teachers and its dimensions.
4. To find the level of teacher effectiveness of PG mathematics teachers in higher secondary schools in Tirunelveli Central Educational District, Cheranmahadevi Educational District and Tenkasi Educational District and its dimensions.
5. To find the significance of difference among the PG mathematics teachers in higher secondary schools in Tirunelveli Central Educational District, Cheranmahadevi Educational District and Tenkasi Educational District in teacher effectiveness and its dimensions.
6. To find the significance of correlation between the teacher effectiveness of the PG mathematics teachers in higher secondary schools in Tirunelveli Central Educational District, Cheranmahadevi Educational District and Tenkasi Educational District and their professional affiliation, job satisfaction and manifest anxiety.

7. To find the predictability of professional affiliation, job satisfaction and manifest anxiety with regard to teacher effectiveness and its dimensions of PG mathematics teachers in Tirunelveli Central Educational District, Cheranmahadevi Educational District and Tenkasi Educational District.

8. To find the level of teacher effectiveness and its dimensions of PG mathematics teachers in government, aided and private higher secondary schools.

9. To find the significance of difference among the PG mathematics teachers in government, aided and private higher secondary schools in teacher effectiveness and its dimensions.

10. To find the significance of correlation between the teacher effectiveness of the PG mathematics teachers in government, aided and private higher secondary schools and their professional affiliation, job satisfaction and manifest anxiety.

11. To find the predictability of professional affiliation, job satisfaction and manifest anxiety with regard to teacher effectiveness and its dimensions of PG mathematics teachers in government, aided and private higher secondary schools.

12. To find the level of teacher effectiveness and its dimensions of PG mathematics teachers in boys, girls and coeducation higher secondary schools.

13. To find the significance of difference among the PG mathematics teachers in boys, girls and coeducation higher secondary schools in teacher effectiveness and its dimensions.

14. To find the significance of correlation between the teacher effectiveness of the PG mathematics teachers in boys, girls and coeducation higher secondary schools and their professional affiliation, job satisfaction and manifest anxiety.

15. To find the predictability of professional affiliation, job satisfaction and manifest anxiety with regard to teacher effectiveness and its dimensions of PG mathematics teachers in boys, girls and coeducation higher secondary schools.

16. To find the level of teacher effectiveness and its dimensions of PG mathematics teachers having few (upto 9 years), moderate (10 to 19 years) and long (20 and above years) experience.
To find the significance of difference between the PG mathematics teachers having few (upto 9 years), moderate (10 to 19 years) and long (20 and above years) experience in teacher effectiveness and its dimensions.

To find the significance of correlation between the teacher effectiveness of the PG mathematics teachers few (upto 9 years), moderate (10 to 19 years) and long (20 and above years) experience, and their professional affiliation, job satisfaction and manifest anxiety.

To find the predictability of professional affiliation, job satisfaction and manifest anxiety with regard to teacher effectiveness and its dimensions of PG mathematics teachers having few (upto 9 years), moderate (10 to 19 years) and long (20 and above years) experience.

To find the level of teacher effectiveness and its dimensions of PG mathematics teachers with their spouse employed and those with spouse unemployed.

To find the significance of difference between the PG mathematics teachers with their spouse employed and those with spouse unemployed in teacher effectiveness and its dimensions.

To find the significance of correlation between the teacher effectiveness of the PG mathematics teachers with their spouse employed and those with spouse unemployed, and their professional affiliation, job satisfaction and manifest anxiety.

To find the predictability of professional affiliation, job satisfaction and manifest anxiety with regard to teacher effectiveness and its dimensions of PG mathematics teachers with their spouse employed and those with spouse unemployed.

To find the level of teacher effectiveness and its dimensions of PG mathematics teachers having intellectual oriented, aesthetic oriented, emotional oriented and athletic oriented recreations.

To find the significance of difference between the PG mathematics teachers having intellectual oriented, aesthetic oriented, emotional oriented and athletic oriented recreations in teacher effectiveness and its dimensions.

To find the significance of correlation between the teacher effectiveness of the PG mathematics teachers having intellectual oriented, aesthetic oriented, emotional oriented and athletic oriented recreations, and their professional affiliation, job satisfaction and manifest anxiety.

To find the predictability of professional affiliation, job satisfaction and manifest anxiety with regard to teacher effectiveness and its dimensions of PG mathematics teachers having intellectual oriented, aesthetic oriented, emotional oriented and athletic oriented recreations.
teachers having intellectual oriented, aesthetic oriented, emotional oriented and athletic oriented recreations.

28. To find the level of teacher effectiveness and its dimensions of PG mathematics teachers spending short (one hour), moderate (2 hours) and long (3 hours and more) time of recreation.

29. To find the significance of difference between the PG mathematics teachers spending short (one hour), moderate (2 hours) and long (3 hours and more) time of recreation in teacher effectiveness and its dimensions.

30. To find the significance of correlation between the teacher effectiveness of the PG mathematics teachers spending short (one hour), moderate (2 hours) and long (3 hours and more) time of recreation, and their professional affiliation, job satisfaction and manifest anxiety.

31. To find the predictability of professional affiliation, job satisfaction and manifest anxiety with regard to teacher effectiveness and its dimensions of PG mathematics teachers spending short (one hour), moderate (2 hours) and long (3 hours and more) time of recreation.

PART – II: TEACHER EFFECTIVENESS OF MALE PG TEACHERS TEACHING MATHEMATICS

1. To find the level of teacher effectiveness of male PG teachers teaching mathematics in higher secondary schools in Tirunelveli Revenue District and its dimensions.

2. To find the significance of correlation between teacher effectiveness of male PG mathematics teachers and their professional affiliation, job satisfaction and manifest anxiety.

3. To find the predictability of professional affiliation, job satisfaction and manifest anxiety with regard to teacher effectiveness of male PG mathematics teachers and its dimensions.

4. To find the level of teacher effectiveness of male PG mathematics teachers in higher secondary schools in Tirunelveli Central Educational District, Cheranmahadevi Educational District and Tenkasi Educational District and its dimensions.

5. To find the significance of difference among the male PG mathematics teachers in higher secondary schools in Tirunelveli Central Educational District, Cheranmahadevi Educational District and Tenkasi Educational District in teacher effectiveness and its dimensions.
6. To find the significance of correlation between the teacher effectiveness of the male PG mathematics teachers in higher secondary schools in Tirunelveli Central Educational District, Cheranmahadevi Educational District and Tenkasi Educational District and their professional affiliation, job satisfaction and manifest anxiety.

7. To find the level of teacher effectiveness and its dimensions of male PG mathematics teachers in government, aided and private higher secondary schools.

8. To find the significance of difference among the male PG mathematics teachers in government, aided and private higher secondary schools in teacher effectiveness and its dimensions.

9. To find the significance of correlation between the teacher effectiveness of the male PG mathematics teachers in government, aided and private higher secondary schools and their professional affiliation, job satisfaction and manifest anxiety.

10. To find the level of teacher effectiveness and its dimensions of male PG mathematics teachers in boys, girls and coeducation higher secondary schools.

11. To find the significance of difference among the male PG mathematics teachers in boys, girls and coeducation higher secondary schools in teacher effectiveness and its dimensions.

12. To find the significance of correlation between the teacher effectiveness of the male PG mathematics teachers in boys, girls and coeducation higher secondary schools and their professional affiliation, job satisfaction and manifest anxiety.

13. To find the level of teacher effectiveness and its dimensions of male PG mathematics teachers having few (upto 9 years), moderate (10 to 19 years) and long (20 and above years) experience.

14. To find the significance of difference between the male PG mathematics teachers having few (upto 9 years), moderate (10 to 19 years) and long (20 and above years) experience in teacher effectiveness and its dimensions.

15. To find the significance of correlation between the teacher effectiveness of the male PG mathematics teachers few (upto 9 years), moderate (10 to 19 years) and long (20 and above years) experience, and their professional affiliation, job satisfaction and manifest anxiety.

16. To find the level of teacher effectiveness and its dimensions of male PG mathematics teachers with their spouse employed and those with spouse unemployed.
17. To find the significance of difference between the male PG mathematics teachers with their spouse employed and those with spouse unemployed in teacher effectiveness and its dimensions.

18. To find the significance of correlation between the teacher effectiveness of the male PG mathematics teachers with their spouse employed and those with spouse unemployed, and their professional affiliation, job satisfaction and manifest anxiety.

19. To find the level of teacher effectiveness and its dimensions of male PG mathematics teachers having intellectual oriented, aesthetic oriented, emotional oriented and athletic oriented recreations.

20. To find the significance of difference between the male PG mathematics teachers having intellectual oriented, aesthetic oriented, emotional oriented and athletic oriented recreations in teacher effectiveness and its dimensions.

21. To find the significance of correlation between the teacher effectiveness of the male PG mathematics teachers having intellectual oriented, aesthetic oriented, emotional oriented and athletic oriented recreations, and their professional affiliation, job satisfaction and manifest anxiety.

22. To find the level of teacher effectiveness and its dimensions of male PG mathematics teachers spending short (one hour), moderate (2 hours) and long (3 hours and more) time of recreation.

23. To find the significance of difference between the male PG mathematics teachers spending short (one hour), moderate (2 hours) and long (3 hours and more) time of recreation in teacher effectiveness and its dimensions.

24. To find the significance of correlation between the teacher effectiveness of the male PG mathematics teachers spending short (one hour), moderate (2 hours) and long (3 hours and more) time of recreation, and their professional affiliation, job satisfaction and manifest anxiety.

PART – III: TEACHER EFFECTIVENESS OF FEMALE PG TEACHERS TEACHING MATHEMATICS

1. To find the level of teacher effectiveness of female PG teachers teaching mathematics in higher secondary schools in Tirunelveli Revenue District and its dimensions.
2. To find the significance of correlation between teacher effectiveness of female PG mathematics teachers and their professional affiliation, job satisfaction and manifest anxiety.

3. To find the predictability of professional affiliation, job satisfaction and manifest anxiety with regard to teacher effectiveness of female PG mathematics teachers and its dimensions.

4. To find the level of teacher effectiveness of female PG mathematics teachers in higher secondary schools in Tirunelveli Central Educational District, Cheranmahadevi Educational District and Tenkasi Educational District and its dimensions.

5. To find the significance of difference among the female PG mathematics teachers in higher secondary schools in Tirunelveli Central Educational District, Cheranmahadevi Educational District and Tenkasi Educational District in teacher effectiveness and its dimensions.

6. To find the significance of correlation between the teacher effectiveness of the female PG mathematics teachers in higher secondary schools in Tirunelveli Central Educational District, Cheranmahadevi Educational District and Tenkasi Educational District and their professional affiliation, job satisfaction and manifest anxiety.

7. To find the level of teacher effectiveness and its dimensions of female PG mathematics teachers in government, aided and private higher secondary schools.

8. To find the significance of difference among the female PG mathematics teachers in government, aided and private higher secondary schools in teacher effectiveness and its dimensions.

9. To find the significance of correlation between the teacher effectiveness of the female PG mathematics teachers in government, aided and private higher secondary schools and their professional affiliation, job satisfaction and manifest anxiety.

10. To find the level of teacher effectiveness and its dimensions of female PG mathematics teachers in boys, girls and coeducation higher secondary schools.

11. To find the significance of difference among the female PG mathematics teachers in boys, girls and coeducation higher secondary schools in teacher effectiveness and its dimensions.

12. To find the significance of correlation between the teacher effectiveness of the female PG mathematics teachers in boys, girls and coeducation higher secondary schools and their professional affiliation, job satisfaction and manifest anxiety.
13. To find the level of teacher effectiveness and its dimensions of female PG mathematics teachers having few (upto 9 years), moderate (10 to 19 years) and long (20 and above years) experience.
14. To find the significance of difference between the female PG mathematics teachers having few (upto 9 years), moderate (10 to 19 years) and long (20 and above years) experience in teacher effectiveness and its dimensions.
15. To find the significance of correlation between the teacher effectiveness of the female PG mathematics teachers few (upto 9 years), moderate (10 to 19 years) and long (20 and above years) experience, and their professional affiliation, job satisfaction and manifest anxiety.
16. To find the level of teacher effectiveness and its dimensions of female PG mathematics teachers with their spouse employed and those with spouse unemployed.
17. To find the significance of difference between the female PG mathematics teachers with their spouse employed and those with spouse unemployed in teacher effectiveness and its dimensions.
18. To find the significance of correlation between the teacher effectiveness of the female PG mathematics teachers with their spouse employed and those with spouse unemployed, and their professional affiliation, job satisfaction and manifest anxiety.
19. To find the level of teacher effectiveness and its dimensions of female PG mathematics teachers having intellectual oriented, aesthetic oriented, emotional oriented and athletic oriented recreations.
20. To find the significance of difference between the female PG mathematics teachers having intellectual oriented, aesthetic oriented, emotional oriented and athletic oriented recreations in teacher effectiveness and its dimensions.
21. To find the significance of correlation between the teacher effectiveness of the female PG mathematics teachers having intellectual oriented, aesthetic oriented, emotional oriented and athletic oriented recreations, and their professional affiliation, job satisfaction and manifest anxiety.
22. To find the level of teacher effectiveness and its dimensions of female PG mathematics teachers spending short (one hour), moderate (2 hours) and long (3 hours and more) time of recreation.
23. To find the significance of difference between the female PG mathematics teachers spending short (one hour), moderate (2 hours) and long (3 hours and more) time of recreation in teacher effectiveness and its dimensions.

24. To find the significance of correlation between the teacher effectiveness of the female PG mathematics teachers spending short (one hour), moderate (2 hours) and long (3 hours and more) time of recreation, and their professional affiliation, job satisfaction and manifest anxiety.

PART – IV: DIFFERENCE BETWEEN MALE AND FEMALE PG TEACHERS TEACHING MATHEMATICS IN THEIR TEACHER EFFECTIVENESS

1. To find the significance of difference between male and female PG Maths teachers in their teacher effectiveness and its dimensions.

2. To find the significance of difference between male and female PG Maths teachers in Tirunelveli Central Educational District in their teacher effectiveness and its dimensions.

3. To find the significance of difference between male and female PG Maths teachers in Cheranmahadevi Educational District in their teacher effectiveness and its dimensions.

4. To find the significance of difference between male and female PG Maths teachers in Tenkasi Educational District in their teacher effectiveness and its dimensions.

5. To find the significance of difference between male and female PG Maths teachers in government higher secondary schools in their teacher effectiveness and its dimensions.

6. To find the significance of difference between male and female PG Maths teachers in aided higher secondary schools in their teacher effectiveness and its dimensions.

7. To find the significance of difference between male and female PG Maths teachers in private higher secondary schools in their teacher effectiveness and its dimensions.

8. To find the significance of difference between male and female PG Maths teachers in boys’ higher secondary schools in their teacher effectiveness and its dimensions.

9. To find the significance of difference between male and female PG Maths teachers in girls’ higher secondary schools in their teacher effectiveness and its dimensions.

10. To find the significance of difference between male and female PG Maths teachers in coeducation higher secondary schools in their teacher effectiveness and its dimensions.
11. To find the significance of difference between male and female PG Maths teachers having few years of experience in their teacher effectiveness and its dimensions.
12. To find the significance of difference between male and female PG Maths teachers having moderate years of experience in their teacher effectiveness and its dimensions.
13. To find the significance of difference between male and female PG Maths teachers having long years of experience in their teacher effectiveness and its dimensions.
14. To find the significance of difference between male and female PG Maths teachers with their spouse employed in their teacher effectiveness and its dimensions.
15. To find the significance of difference between male and female PG Maths teachers with their spouse unemployed in their teacher effectiveness and its dimensions.
16. To find the significance of difference between male and female PG Maths teachers having intellectual oriented recreations in their teacher effectiveness and its dimensions.
17. To find the significance of difference between male and female PG Maths teachers having aesthetic oriented recreations in their teacher effectiveness and its dimensions.
18. To find the significance of difference between male and female PG Maths teachers having emotional oriented recreations in their teacher effectiveness and its dimensions.
19. To find the significance of difference between male and female PG Maths teachers having athletic oriented recreations in their teacher effectiveness and its dimensions.
20. To find the significance of difference between male and female PG Maths teachers spending short time of recreations in their teacher effectiveness and its dimensions.
21. To find the significance of difference between male and female PG Maths teachers spending moderate time of recreations in their teacher effectiveness and its dimensions.
22. To find the significance of difference between male and female PG Maths teachers spending long time of recreations in their teacher effectiveness and its dimensions.

3.6. HYPOTHESES

PART – I: TEACHER EFFECTIVENESS OF PG TEACHERS TEACHING MATHEMATICS

1. The level of teacher effectiveness of PG teachers teaching mathematics in higher secondary schools in Tirunelveli Revenue District and its dimensions is average.
2. There is no significant correlation between teacher effectiveness of PG mathematics teachers and their professional affiliation, job satisfaction and manifest anxiety.

3. Professional affiliation, job satisfaction and manifest anxiety are not significant predictors of teacher effectiveness of PG mathematics teachers and its dimensions.

4. The level of teacher effectiveness of PG mathematics teachers in higher secondary schools in Tirunelveli Central Educational District, Cheranmahadevi Educational District and Tenkasi Educational District and its dimensions is average.

5. There is no significant difference among the PG mathematics teachers in higher secondary schools in Tirunelveli Central Educational District, Cheranmahadevi Educational District and Tenkasi Educational District in teacher effectiveness and its dimensions.

6. There is no significant correlation between the teacher effectiveness of the PG mathematics teachers in higher secondary schools in Tirunelveli Central Educational District, Cheranmahadevi Educational District and Tenkasi Educational District and their professional affiliation, job satisfaction and manifest anxiety.

7. Professional affiliation, job satisfaction and manifest anxiety are not significant predictors of PG mathematics teachers in higher secondary schools in Tirunelveli Central Educational District, Cheranmahadevi Educational District and Tenkasi Educational District with regard to their teacher effectiveness.

8. The level of teacher effectiveness and its dimensions of PG mathematics teachers in government, aided and private higher secondary schools is average.

9. There is no significant difference among the PG mathematics teachers in government, aided and private higher secondary schools in teacher effectiveness and its dimensions.

10. There is no significant correlation between the teacher effectiveness of the PG mathematics teachers in government, aided and private higher secondary schools and their professional affiliation, job satisfaction and manifest anxiety.

11. Professional affiliation, job satisfaction and manifest anxiety are not significant predictors of PG mathematics teachers in government, aided and private higher secondary schools with regard to their teacher effectiveness.

12. The level of teacher effectiveness and its dimensions of PG mathematics teachers in boys, girls and coeducation higher secondary schools is average.
13. There is no significant difference among the PG mathematics teachers in boys, girls and coeducation higher secondary schools in teacher effectiveness and its dimensions.

14. There is no significant correlation between the teacher effectiveness of the PG mathematics teachers in boys, girls and coeducation higher secondary schools and their professional affiliation, job satisfaction and manifest anxiety.

15. Professional affiliation, job satisfaction and manifest anxiety are not significant predictors of PG mathematics teachers in boys, girls and coeducation higher secondary schools with regard to their teacher effectiveness.

16. The level of teacher effectiveness and its dimensions of PG mathematics teachers having few (upto 9 years), moderate (10 to 19 years) and long (20 and above years) experience is average.

17. There is no significant difference between the PG mathematics teachers having few (upto 9 years), moderate (10 to 19 years) and long (20 and above years) experience in teacher effectiveness and its dimensions.

18. There is no significant correlation between the teacher effectiveness of the PG mathematics teachers few (upto 9 years), moderate (10 to 19 years) and long (20 and above years), and their professional affiliation, job satisfaction and manifest anxiety.

19. Professional affiliation, job satisfaction and manifest anxiety are not significant predictors of PG mathematics teachers having few (upto 9 years), moderate (10 to 19 years) and long (20 and above years) experience with regard to their teacher effectiveness.

20. The level of teacher effectiveness and its dimensions of PG mathematics teachers with their spouse employed and those with spouse unemployed is average.

21. There is no significant difference between the PG mathematics teachers with their spouse employed and those with spouse unemployed in teacher effectiveness and its dimensions.

22. There is no significant correlation between the teacher effectiveness of the PG mathematics teachers with their spouse employed and those with spouse unemployed, and their professional affiliation, job satisfaction and manifest anxiety.

23. Professional affiliation, job satisfaction and manifest anxiety are not significant predictors of PG mathematics teachers with their spouse employed and those with spouse unemployed with regard to their teacher effectiveness.
24. The level of teacher effectiveness and its dimensions of PG mathematics teachers having intellectual oriented, aesthetic oriented, emotional oriented and athletic oriented recreations is average.

25. There is no significant difference between the PG mathematics teachers having intellectual oriented, aesthetic oriented, emotional oriented and athletic oriented recreations in teacher effectiveness and its dimensions.

26. There is no significant correlation between the teacher effectiveness of the PG mathematics teachers having intellectual oriented, aesthetic oriented, emotional oriented and athletic oriented recreations, and their professional affiliation, job satisfaction and manifest anxiety.

27. Professional affiliation, job satisfaction and manifest anxiety are not significant predictors of PG mathematics teachers having intellectual oriented, aesthetic oriented, emotional oriented and athletic oriented recreations with regard to their teacher effectiveness.

28. The level of teacher effectiveness and its dimensions of PG mathematics teachers spending short (one hour), moderate (2 hours) and long (3 hours and more) time of recreation is average.

29. There is no significant difference between the PG mathematics teachers spending short (one hour), moderate (2 hours) and long (3 hours and more) time of recreation in teacher effectiveness and its dimensions.

30. There is no significant correlation between the teacher effectiveness of the PG mathematics teachers spending short (one hour), moderate (2 hours) and long (3 hours and more) time of recreation, and their professional affiliation, job satisfaction and manifest anxiety.

31. Professional affiliation, job satisfaction and manifest anxiety are not significant predictors of PG mathematics teachers spending short (one hour), moderate (2 hours) and long (3 hours and more) time of recreation with regard to their teacher effectiveness.

PART – II: TEACHER EFFECTIVENESS OF MALE PG TEACHERS TEACHING MATHEMATICS

1. The level of teacher effectiveness of male PG teachers teaching mathematics in higher secondary schools in Tirunelveli Revenue District and its dimensions is average.
2. There is no significant correlation between teacher effectiveness of male PG mathematics teachers and their professional affiliation, job satisfaction and manifest anxiety.

3. Professional affiliation, job satisfaction and manifest anxiety are not significant predictors of teacher effectiveness of male PG mathematics teachers and its dimensions.

4. The level of teacher effectiveness of male PG mathematics teachers in higher secondary schools in Tirunelveli Central Educational District, Cheranmahadevi Educational District and Tenkasi Educational District and its dimensions is average.

5. There is no significant difference among the male PG mathematics teachers in higher secondary schools in Tirunelveli Central Educational District, Cheranmahadevi Educational District and Tenkasi Educational District in teacher effectiveness and its dimensions.

6. There is no significant correlation between the teacher effectiveness of the male PG mathematics teachers in higher secondary schools in Tirunelveli Central Educational District, Cheranmahadevi Educational District and Tenkasi Educational District and their professional affiliation, job satisfaction and manifest anxiety.

7. The level of teacher effectiveness and its dimensions of male PG mathematics teachers in government, aided and private higher secondary schools is average.

8. There is no significant difference among the male PG mathematics teachers in government, aided and private higher secondary schools in teacher effectiveness and its dimensions.

9. There is no significant correlation between the teacher effectiveness of the male PG mathematics teachers in government, aided and private higher secondary schools and their professional affiliation, job satisfaction and manifest anxiety.

10. The level of teacher effectiveness and its dimensions of male PG mathematics teachers in boys, girls and coeducation higher secondary schools is average.

11. There is no significant difference among the male PG mathematics teachers in boys, girls and coeducation higher secondary schools in teacher effectiveness and its dimensions.

12. There is no significant correlation between the teacher effectiveness of the male PG mathematics teachers in boys, girls and coeducation higher secondary schools and their professional affiliation, job satisfaction and manifest anxiety.
13. The level of teacher effectiveness and its dimensions of male PG mathematics teachers having few (upto 9 years), moderate (10 to 19 years) and long (20 and above years) experience is average.

14. There is no significant difference between the male PG mathematics teachers having few (upto 9 years), moderate (10 to 19 years) and long (20 and above years) experience in teacher effectiveness and its dimensions.

15. There is no significant correlation between the teacher effectiveness of the male PG mathematics teachers few (upto 9 years), moderate (10 to 19 years) and long (20 and above years), and their professional affiliation, job satisfaction and manifest anxiety.

16. The level of teacher effectiveness and its dimensions of male PG mathematics teachers with their spouse employed and those with spouse unemployed is average.

17. There is no significant difference between the male PG mathematics teachers with their spouse employed and those with spouse unemployed in teacher effectiveness and its dimensions.

18. There is no significant correlation between the teacher effectiveness of the male PG mathematics teachers with their spouse employed and those with spouse unemployed, and their professional affiliation, job satisfaction and manifest anxiety.

19. The level of teacher effectiveness and its dimensions of male PG mathematics teachers having intellectual oriented, aesthetic oriented, emotional oriented and athletic oriented recreations is average.

20. There is no significant difference between the male PG mathematics teachers having intellectual oriented, aesthetic oriented, emotional oriented and athletic oriented recreations in teacher effectiveness and its dimensions.

21. There is no significant correlation between the teacher effectiveness of the male PG mathematics teachers having intellectual oriented, aesthetic oriented, emotional oriented and athletic oriented recreations, and their professional affiliation, job satisfaction and manifest anxiety.

22. The level of teacher effectiveness and its dimensions of male PG mathematics teachers spending short (one hour), moderate (2 hours) and long (3 hours and more) time of recreation is average.

23. There is no significant difference between the male PG mathematics teachers spending short (one hour), moderate (2 hours) and long (3 hours and more) time of recreation in teacher effectiveness and its dimensions.
24. There is no significant correlation between the teacher effectiveness of the male PG mathematics teachers spending short (one hour), moderate (2 hours) and long (3 hours and more) time of recreation, and their professional affiliation, job satisfaction and manifest anxiety.

PART – III: TEACHER EFFECTIVENESS OF FEMALE PG TEACHERS TEACHING MATHEMATICS

1. The level of teacher effectiveness of female PG teachers teaching mathematics in higher secondary schools in Tirunelveli Revenue District and its dimensions is average.

2. There is no significant correlation between teacher effectiveness of female PG mathematics teachers and their professional affiliation, job satisfaction and manifest anxiety.

3. Professional affiliation, job satisfaction and manifest anxiety are not significant predictors of teacher effectiveness of female PG mathematics teachers and its dimensions.

4. The level of teacher effectiveness of female PG mathematics teachers in higher secondary schools in Tirunelveli Central Educational District, Cheranmahadevi Educational District and Tenkasi Educational District and its dimensions is average.

5. There is no significant difference among the female PG mathematics teachers in higher secondary schools in Tirunelveli Central Educational District, Cheranmahadevi Educational District and Tenkasi Educational District in teacher effectiveness and its dimensions.

6. There is no significant correlation between the teacher effectiveness of the female PG mathematics teachers in higher secondary schools in Tirunelveli Central Educational District, Cheranmahadevi Educational District and Tenkasi Educational District and their professional affiliation, job satisfaction and manifest anxiety.

7. The level of teacher effectiveness and its dimensions of female PG mathematics teachers in government, aided and private higher secondary schools is average.

8. There is no significant difference among the female PG mathematics teachers in government, aided and private higher secondary schools in teacher effectiveness and its dimensions.
9. There is no significant correlation between the teacher effectiveness of the female PG mathematics teachers in government, aided and private higher secondary schools and their professional affiliation, job satisfaction and manifest anxiety.

10. The level of teacher effectiveness and its dimensions of female PG mathematics teachers in boys, girls and coeducation higher secondary schools is average.

11. There is no significant difference among the female PG mathematics teachers in boys, girls and coeducation higher secondary schools in teacher effectiveness and its dimensions.

12. There is no significant correlation between the teacher effectiveness of the female PG mathematics teachers in boys, girls and coeducation higher secondary schools and their professional affiliation, job satisfaction and manifest anxiety.

13. The level of teacher effectiveness and its dimensions of female PG mathematics teachers having few (upto 9 years), moderate (10 to 19 years) and long (20 and above years) experience is average.

14. There is no significant difference between the female PG mathematics teachers having few (upto 9 years), moderate (10 to 19 years) and long (20 and above years) experience in teacher effectiveness and its dimensions.

15. There is no significant correlation between the teacher effectiveness of the female PG mathematics teachers having few (upto 9 years), moderate (10 to 19 years) and long (20 and above years), and their professional affiliation, job satisfaction and manifest anxiety.

16. The level of teacher effectiveness and its dimensions of female PG mathematics teachers with their spouse employed and those with spouse unemployed is average.

17. There is no significant difference between the female PG mathematics teachers with their spouse employed and those with spouse unemployed in teacher effectiveness and its dimensions.

18. There is no significant correlation between the teacher effectiveness of the female PG mathematics teachers with their spouse employed and those with spouse unemployed, and their professional affiliation, job satisfaction and manifest anxiety.

19. The level of teacher effectiveness and its dimensions of female PG mathematics teachers having intellectual oriented, aesthetic oriented, emotional oriented and athletic oriented recreations is average.

20. There is no significant difference between the female PG mathematics teachers having intellectual oriented, aesthetic oriented, emotional oriented and athletic oriented recreations in teacher effectiveness and its dimensions.
21. There is no significant correlation between the teacher effectiveness of the female PG mathematics teachers having intellectual oriented, aesthetic oriented, emotional oriented and athletic oriented recreations, and their professional affiliation, job satisfaction and manifest anxiety.

22. The level of teacher effectiveness and its dimensions of female PG mathematics teachers spending short (one hour), moderate (2 hours) and long (3 hours and more) time of recreation is average.

23. There is no significant difference between the female PG mathematics teachers spending short (one hour), moderate (2 hours) and long (3 hours and more) time of recreation in teacher effectiveness and its dimensions.

24. There is no significant correlation between the teacher effectiveness of the female PG mathematics teachers spending short (one hour), moderate (2 hours) and long (3 hours and more) time of recreation, and their professional affiliation, job satisfaction and manifest anxiety.

PART – IV: DIFFERENCE BETWEEN MALE AND FEMALE PG TEACHERS TEACHING MATHEMATICS IN THEIR TEACHER EFFECTIVENESS

1. There is no significant difference between male and female PG Maths teachers in their teacher effectiveness and its dimensions.

2. There is no significant difference between male and female PG Maths teachers in Tirunelveli Central Educational District in their teacher effectiveness and its dimensions.

3. There is no significant difference between male and female PG Maths teachers in Cheranmahadevi Educational District in their teacher effectiveness and its dimensions.

4. There is no significant difference between male and female PG Maths teachers in Tenkasi Educational District in their teacher effectiveness and its dimensions.

5. There is no significant difference between male and female PG Maths teachers in government higher secondary schools in their teacher effectiveness and its dimensions.

6. There is no significant difference between male and female PG Maths teachers in aided higher secondary schools in their teacher effectiveness and its dimensions.

7. There is no significant difference between male and female PG Maths teachers in private higher secondary schools in their teacher effectiveness and its dimensions.
8. There is no significant difference between male and female PG Maths teachers in boys’ higher secondary schools in their teacher effectiveness and its dimensions.

9. There is no significant difference between male and female PG Maths teachers in girls’ higher secondary schools in their teacher effectiveness and its dimensions.

10. There is no significant difference between male and female PG Maths teachers in coeducation higher secondary schools in their teacher effectiveness and its dimensions.

11. There is no significant difference between male and female PG Maths teachers having few years of experience in their teacher effectiveness and its dimensions.

12. There is no significant difference between male and female PG Maths teachers having moderate years of experience in their teacher effectiveness and its dimensions.

13. There is no significant difference between male and female PG Maths teachers having long years of experience in their teacher effectiveness and its dimensions.

14. There is no significant difference between male and female PG Maths teachers with their spouse employed in their teacher effectiveness and its dimensions.

15. There is no significant difference between male and female PG Maths teachers with their spouse unemployed in their teacher effectiveness and its dimensions.

16. There is no significant difference between male and female PG Maths teachers having intellectual oriented recreations in their teacher effectiveness and its dimensions.

17. There is no significant difference between male and female PG Maths teachers having aesthetic oriented recreations in their teacher effectiveness and its dimensions.

18. There is no significant difference between male and female PG Maths teachers having emotional oriented recreations in their teacher effectiveness and its dimensions.

19. There is no significant difference between male and female PG Maths teachers having athletic oriented recreations in their teacher effectiveness and its dimensions.

20. There is no significant difference between male and female PG Maths teachers spending short time of recreations in their teacher effectiveness and its dimensions.

21. There is no significant difference between male and female PG Maths teachers spending medium time of recreations in their teacher effectiveness and its dimensions.
22. There is no significant difference between male and female PG Maths teachers spending long time of recreations in their teacher effectiveness and its dimensions.

3.7. POPULATION AND SAMPLE

All the PG teachers teaching mathematics at higher secondary level in the schools of Tirunelveli Revenue District form the population of the present study.

From the available higher secondary schools in Tirunelveli Revenue District, 186 schools were chosen, that is 54 schools from Tirunelveli Central Educational District, 73 schools from Cheranmahadevi Educational District and 59 schools from Tenkasi Educational District were taken by random after due stratification. The list of institutions is given in the appendix.

3.8. RESEARCH TOOLS


3.9. ESTABLISHING RELIABILITY

The reliabilities of the tools were established using test-retest method. All the tools were first administered to 25 higher secondary teachers randomly selected. Then after an interval of ten days the same tests were administered to the same sample. Using the two sets of scores obtained for each one of the tools, product moment correlations were computed. The obtained correlation coefficients are given in the following table:

<table>
<thead>
<tr>
<th>Tools</th>
<th>Correlation Coefficient</th>
</tr>
</thead>
<tbody>
<tr>
<td>Teacher Effectiveness Inventory</td>
<td>0.729</td>
</tr>
<tr>
<td>Professional Affiliation Scale</td>
<td>0.764</td>
</tr>
<tr>
<td>Job Satisfaction Scale</td>
<td>0.904</td>
</tr>
<tr>
<td>Manifest Anxiety Inventory</td>
<td>0.880</td>
</tr>
</tbody>
</table>
The correlation coefficients are positive and significant for all the categories. This upholds the consistency of the tool and hence the tools are taken to be reliable. The tools are given in the appendix.

3.10. COLLECTION OF DATA

The research tools were administered to 190 teachers teaching at higher secondary level working in government, aided and private institutions after the prior permission from the Heads of the institutions. The investigator explained the tools to the teachers personally. The teachers were requested to answer all the statements and return them promptly to the investigator. After getting the answered tools, it was found that 4 of them were not complete in one form or the other. Therefore, 186 teachers figured in the final list of respondents. The filled-in tools were scored and the data were tabulated for analysis.

3.11. STATISTICS USED

The investigator used the following statistical techniques to test the hypotheses.

1. Percentage Analysis
2. ‘t’ Test
3. ANOVA
4. Pearson Product Moment Correlation
5. Regression Analysis

3.12. REFERENCE