Chapter 7

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Summary, Findings and Recommendations

7.1 Introduction:

The researcher discussed Statement of the Problem, Objectives and Hypothesis, Importance of the Study and Definition of the Terms in the first chapter. In the second chapter the researcher discussed Review of Previous Research Work and Significance of the Present Study. The researcher discussed Planning of Research in the third chapter and Construction and Standardization of the Tool in the fourth chapter. In the fifth chapter the researcher discussed Foundation and Procedure of Research. In this chapter the researcher discussed Population, Selection of the Sample, and Method of the Study, Method of Data Collection and Method of Data Analysis. The researcher discussed Treatment and Interpretation of Data in the sixth chapter.

Summary and Findings of the study are discussed in chapter 7. As the Research is a continuous process the researcher gave recommendations for future researches.

7.2 Summary of the Research:

The researcher passed through processes and experiences of research. The researcher studied examination anxiety among Secondary school students in the context of variables like gender, standard, area, and educational achievement.
Statement of the problem is as follows:

“A Study of the Examination Anxiety among the Secondary School Students in the Context of some Variables”

The researcher selected following Objectives for the study.

1. To construct examination anxiety scale for the Secondary School Students.
2. To identify the level of examination anxiety of the Secondary School Students.
3. To compare their examination anxiety in the context of their gender.
4. To compare their examination anxiety in the context of their standard.
5. To compare their examination anxiety in the context of their area.
6. To compare their examination anxiety in the context of their educational achievement.
7. To compare their examination anxiety in the context of interaction among gender, standard, area and educational achievement.

Following hypotheses were formulated that were tested in the present study.

It is Null hypothesis:

\( H_{01} \) There will be no significant difference between the mean scores of boys and girls on the examination anxiety scale.

\( H_{02} \) There will be no significant difference between the mean scores of students of std.9 and std.10 on the examination anxiety scale.
There will be no significant difference between the mean scores of students of urban area and rural area on the examination anxiety scale.

There will be no significant difference between the mean scores of students of high achievement and low achievement on the examination anxiety scale.

There will be no significant difference between the mean scores of interaction between gender and standard on the examination anxiety scale.

There will be no significant difference between the mean scores of interaction between gender and area on the examination anxiety scale.

There will be no significant difference between the mean scores of interaction between gender and educational achievement on the examination anxiety scale.

There will be no significant difference between the mean scores of interaction between standard and area on the examination anxiety scale.

There will be no significant difference between the mean scores of interaction between standard and educational achievement on the examination anxiety scale.

There will be no significant difference between the mean scores of interaction between area and educational achievement on the examination anxiety scale.

There will be no significant difference between the mean scores of interaction among gender, standard and area on the examination anxiety scale.
There will be no significant difference between the mean scores of interaction among gender, standard and educational achievement on the examination anxiety scale.

There will be no significant difference between the mean scores of interaction among standard, area and educational achievement on the examination anxiety scale.

There will be no significant difference between the mean scores of interaction among gender, area and educational achievement on the examination anxiety scale.

There will be no significant difference between the mean scores of interaction among gender, standard, area and educational achievement on the examination anxiety scale.

This research was limited to the Secondary School Students of Gujarat State. This research was limited to the Gujarati Medium Schools. The researcher studied related literatures on examination anxiety for the critical understanding of the problem under study.

The researcher selected students of Gujarati medium Secondary schools of Gujarat State as the population for the study. Boys and girls of std-9 and std-10 of urban area and rural area of Gujarat State selected as the population. The researcher selected Ahmedabad, Gandhinagar, Kheda, Mehasana, and Bhavanagar districts of Gujarat state. The researcher used Stratified random sampling technique to select the sample. The researcher divided the population of this study into strata like area, gender, standard and educational achievement. In each stratum the units or subjects were homogeneous in terms of variation of the variable characteristic. Subsample from each stratum was randomly selected in proportion to the size of stratum. The researcher used Quartile Deviation to select high educational achiever and low educational achiever students.
from the selected sample. The researcher selected 4972 students of Secondary schools of Gujarat state as the sample. The sample of the study was selected from Ahmadabad, Gandhinagar, Kheda, Mehasana, and Bhavanagar districts of Gujarat state. Boys and girls of std-9 and std-10 selected from urban and rural areas of Gujarat State.

The researcher selected 2213 students from urban area and 2759 students from rural area of Gujarat State. From secondary schools of Gujarat State 2642 boys and 2330 girls were selected. The researcher also selected 2776 students of std-9 and 2196 students of std-10.

The researcher used Survey method for the study. Survey method was employed because the researcher was interested to know negative attitudes of Secondary school students regarding examination.

The researcher constructed and standardized ‘Examination Anxiety Scale’. The researcher classified examination anxiety of the students into three phases: (1) Anxiety before examination (2) Anxiety during examination (3) Anxiety after examination. Sub-points of the phases are following.

(1) Time before examination:
- Expectations from Parents
- Expectations from Schools and Teachers
- Expectations from Society

(2) During examination:
- Effects of anxiety on Physical Health
- Effects of anxiety on Mental Health
- Anxiety in Examination Hall
- Anxiety related to Subject
(3) After examination:
- Anxiety related to Result of Examination

The researcher studied related literatures of examination anxiety in order to collect and construct sentences for the Examination Anxiety Scale. The researcher discussed the problem with students, teachers, principals, parents, experts and psychiatrics. Teachers and psychiatrics provided maximum information of examination anxiety of the students. With the help of this information the researcher constructed sentences reflecting examination anxiety of the students. Experts also helped the researcher in construction of sentences. The researcher constructed sentences for each phase of the Scale. The primary examination anxiety scale was constructed which consisted 88 sentences. The researcher gave five ratings for each sentence: (1) Total agree (2) Agree (3) Neutral (4) Disagree (5) Total disagree. Students have to select one option for each sentence by marking ‘√’ for selected option.

After the construction of the primary tool the researcher gave this scale to experts for evaluation. The researcher followed the suggestions of experts and made changes in Examination Anxiety Scale. The researcher added two new sentences and reconstructed the tool. This reconstructed Examination Anxiety Scale consisted 90 sentences. The researcher gave Examination Anxiety Scale to 287 students for piloting. Responses of students were analyzed and scored according to scoring key. The researcher calculated t-value of sentences. The researcher selected sentences consisting higher t-value and constructed the final Examination Anxiety Scale which consisted 60 sentences. Test-Retest method and Split Half method were used to measure reliability of the Examination Anxiety Scale. Test –Retest reliability of the Scale is 0.573 and Spearman-Brown Split-Half reliability of the Scale is 0.68. Validity
of the Examination Anxiety Scale was determined by using Concurrent method of validity. Validity of the Examination Anxiety Scale is 0.81.

The researcher collected data from the secondary school students selected as sample with the help of tool constructed for the research study. The researcher personally went to respondents for collecting data. The researcher first took prior permission from the principals of different secondary schools and explained the purpose and importance of the study. The researcher went to different secondary schools and established a rapport with the students of std-9 and std-10. The researcher also convinced them that the information given by them remain secret and used only for the research study. The researcher gave necessary instructions of giving information. The students were motivated and gave correct information.

The researcher first classified the collected data according to variables and checked whether the information filled up in the tool is partial or complete. The tools with incomplete information were discarded. The tools with complete information used for classification. Information or data collected from students analyzed and scored according to scoring key of the tool. This obtained examination anxiety scores of the students classified according to variables. This classified data analyzed statically. The method of analysis was selected by taking into consideration the objectives of the study, population and the sampling design- on the basis of which a sample of appropriate size was drawn. In addition to these, variables, levels of variables, accuracy of measurements, hypothesis were taken into account for selecting the method of analysis. ANCOVA and F-test used to analyze the Null hypothesis.
7.3 Interpretation According to Hypothesis Testing:

Interpretation of the data according to hypothesis testing is following:

1. In case of main effect of gender, ‘F’ ratio 3.41 is not significant at 0.01 levels. So the hypothesis no. 1 ‘There will be no significant difference between the mean scores of boys and girls on the examination anxiety scale’ is accepted. It means there is no significant difference between the mean scores of boys and girls on the examination anxiety scale.

2. In case of main effect of standard, ‘F’ ratio 2.19 is not significant at 0.01 levels. So the hypothesis no. 2 ‘There will be no significant difference between the mean scores of students of std.9 and std.10 on the examination anxiety scale’ is accepted. It means there is no significant difference between the mean scores of students of std.9 and std.10 on the examination anxiety scale.

3. In case of main effect of area, ‘F’ ratio 23.13 is significant at 0.01 levels. So the hypothesis no. 3 ‘There will be no significant difference between the mean scores of students of urban area and rural area on the examination anxiety scale’ is not accepted. It means there is seen significant difference between the mean scores of urban and rural area students on examination anxiety scale. Mean score of the Examination anxiety of urban area students is 166.91 and Mean score of the Examination anxiety of rural area students is 181.43. It is clear from the Mean score of examination anxiety of urban and rural area that examination anxiety of rural area students is higher than examination anxiety of urban area students.
4. In case of main effect of educational achievement, ‘F’ ratio 16.74 is significant at 0.01 levels. So the hypothesis no. 4 ‘There will be no significant difference between the mean scores of students of high achievement and low achievement on the examination anxiety scale.’ is not accepted. It means there is seen significant difference between the mean scores of students of high achievement and low achievement on the examination anxiety scale. Mean score of the Examination anxiety of high achiever students is 113.18 and Mean score of the Examination anxiety of low achiever students is 231.36. It is clear from the Mean score of examination anxiety of low achiever and high achiever students that examination anxiety of low achiever students is higher than high achiever students.

5. In case of interaction effects of gender and standard, ‘F’ ratio is 3.14 is not significant. So the hypothesis no.5 ‘There will be no significant difference between the mean scores of interaction between gender and standard on the examination anxiety scale’ is accepted. So it can be concluded that there is no interaction effect of gender and standard on the examination anxiety of students.

6. In case of interaction effects of gender and area, ‘F’ ratio is 2.20 is not significant. So the hypothesis no.6 ‘There will be no significant difference between the mean scores of interaction between gender and area on the examination anxiety scale’ is accepted. It means that there is no interaction effect of gender and area on the mean scores of examination anxiety of students.

7. In case of interaction effects of gender and educational achievement, ‘F’ ratio is 2.68 is not significant. So the hypothesis no.7 ‘There will be no significant difference between the mean scores of interaction between gender and educational
achievement on the examination anxiety scale’ is accepted. So it can be concluded that there is no interaction effect of gender and educational achievement on the examination anxiety of students.

8. In case of interaction effects of standard and area, ‘F’ ratio is 2.46 is not significant. So the hypothesis no.8 ‘There will be no significant difference between the mean scores of interaction between standard and area on the examination anxiety scale’ is accepted. So it can be concluded that there is no interaction effect of standard and area on the examination anxiety of students.

9. In case of interaction effects of standard and educational achievement, ‘F’ ratio is 2.20 is not significant. So the hypothesis no.9 ‘There will be no significant difference between the mean scores of interaction between standard and educational achievement on the examination anxiety scale’ is accepted. So it can be concluded that there is no interaction effect of standard and educational achievement on the examination anxiety of students.

10. In case of interaction effects of area and educational achievement, ‘F’ ratio is 10.89 is significant at 0.01 levels. So the hypothesis no.10 ‘There will be no significant difference between the mean scores of interaction between area and educational achievement on the examination anxiety scale’ is not accepted. So it can be concluded that there is seen interaction effect of area and educational achievement on the examination anxiety of students.

11. In case of interaction effects among gender, standard and area, ‘F’ ratio is 3.27 is not significant at 0.01 levels. So the hypothesis no.11 ‘There will be no significant difference between the mean scores of interaction among gender, standard and area on the examination anxiety scale’ is accepted. So it can be concluded that there is no interaction effect of gender, standard and area on the examination anxiety of students.
examination anxiety scale’ is accepted. So it can be concluded that there is no interaction effect among gender, standard and area on the mean scores of examination anxiety of students.

12. In case of interaction effects among gender, standard and educational achievement, ‘F’ ratio is 1.87 is not significant at 0.01 levels. So the hypothesis no.12 ‘There will be no significant difference between the mean scores of interaction among gender, standard and educational achievement on the examination anxiety scale’ is accepted. So it can be concluded that there is no interaction effect among gender, standard and educational achievement on the mean scores of examination anxiety of students.

13. In case of interaction effects among standard, area and educational achievement, ‘F’ ratio is 12.11 is significant at 0.01 levels. So the hypothesis no.13 ‘There will be no significant difference between the mean scores of interaction among standard, area and educational achievement on the examination anxiety scale’ is not accepted. So it can be concluded that there is seen interaction effect among standard, area and educational achievement on the mean scores of examination anxiety of students.

14. In case of interaction effects among gender, area and educational achievement, ‘F’ ratio is 11.84 is significant at 0.01 levels. So the hypothesis no.14 ‘There will be no significant difference between the mean scores of interaction among gender, area and educational achievement on the examination anxiety scale’ is not accepted. It means that there is seen interaction effect among gender, area and educational achievement on the mean scores of examination anxiety of students.
15. In case of interaction effects among gender, standard, area and educational achievement, ‘F’ ratio is 9.44 is significant at 0.01 levels. So the hypothesis no.15 ‘There will be no significant difference between the mean scores of interaction among gender, standard, area and educational achievement on the examination anxiety scale’ is not accepted. So it can be concluded that there is seen interaction effect among gender, standard, area and educational achievement on the mean scores of examination anxiety of students.

7.4 Findings of the Research:

Findings of the research are following.

1. There is no significant difference between the mean scores of boys and girls on the examination anxiety scale. It means that there is no significant effect of gender on the examination anxiety of students.

2. There is no significant difference between the mean scores of students of std.9 and std.10 on the examination anxiety scale. It means that there is no significant effect of standard on the examination anxiety of students.

3. There is seen significant difference between the mean scores of students of urban area and rural area on the examination anxiety scale. Examination anxiety of rural area students is higher than examination anxiety of urban area students. It means that there is significant effect of area on the examination anxiety of students.

4. There is seen significant difference between the mean scores of students of high achievement and low achievement on the examination anxiety scale. Examination anxiety of low achiever students is higher than examination anxiety of high achiever
students. It means that there is significant effect of educational achievement on the examination anxiety of students.

5. There is no significant difference between the mean scores of interaction between gender and standard on the examination anxiety scale. It means that there is no significant effect of interaction between gender and standard on the examination anxiety of students.

6. There is no significant difference between the mean scores of interaction between gender and area on the examination anxiety scale. It means that there is no significant effect of interaction between gender and area on the examination anxiety of students.

7. There is no significant difference between the mean scores of interaction between gender and educational achievement on the examination anxiety scale. It means that there is no significant effect of interaction between gender and educational achievement on the examination anxiety of students.

8. There is no significant difference between the mean scores of interaction between standard and area on the examination anxiety scale. It means that there is no significant effect of interaction between standard and area on the examination anxiety of students.

9. There is no significant difference between the mean scores of interaction between standard and educational achievement on the examination anxiety scale. It means that there is no significant effect of interaction between standard and educational achievement on the examination anxiety of students.

10. There is seen significant difference between the mean scores of interaction between area and educational achievement on the examination anxiety scale. It means that there is significant effect
of interaction between area and educational achievement on the examination anxiety of students.

11. There is no significant difference between the mean scores of interaction among gender, standard and area on the examination anxiety scale. It means that there is no significant effect of interaction among gender, standard and area on the examination anxiety of students.

12. There is no significant difference between the mean scores of interaction among gender, standard and educational achievement on the examination anxiety scale. It means that there is no significant effect of interaction among gender, standard and educational achievement on the examination anxiety of students.

13. There is seen significant difference between the mean scores of interaction among standard, area and educational achievement on the examination anxiety scale. It means that there is significant effect of interaction among standard, area and educational achievement on the examination anxiety of students.

14. There is seen significant difference between the mean scores of interaction among gender, area and educational achievement on the examination anxiety scale. It means that there is significant effect of interaction among gender, area and educational achievement on the examination anxiety of students.

15. There is seen significant difference between the mean scores of interaction among gender, standard, area and educational achievement on the examination anxiety scale. It means that there is significant effect of interaction among gender, standard, area and educational achievement on the examination anxiety of students.
7.5 Outcomes of the Study:

The importance of the research is related to outcomes of the research. Generally there are two kinds of outcomes: (1) Outcome in the form of Tool of Research and (2) Outcome in the form of Program of Research. The outcome of the present research is in the form of Tool of Research. The researcher constructed and standardized the Examination Anxiety Scale. The Examination Anxiety Scale was constructed to measure examination anxiety of secondary school students. It is an attitude scale having five point ratings: (1) Total agree (2) Agree (3) Neutral (4) Disagree (5) Total disagree. The Examination Anxiety Scale was classified into three phases: (1) Anxiety before examination (2) Anxiety during examination (3) Anxiety after examination. Test –Retest reliability of the Scale is 0.573 and Spearman-Brown Split-Half reliability of the Scale is 0.68. Concurrent validity of the Examination Anxiety Scale is 0.81.

7.6 Comparison of the Results with Previous Researches:

There was no significance difference of gender in the findings of the previous researches. Significant difference of gender is also not seen in the finding of the present research. Effect of General anxiety on educational achievement was not seen but significant effect of examination anxiety on educational achievement was seen in the previous research. Significant effect of examination anxiety on educational achievement of the students is seen in the present research. It is seen in the present research that low achiever students have more examination anxiety than high achiever students. It is also seen that students of rural area have more examination anxiety than students of urban area. Significant effect of interaction was found among gender, area and age in the previous research. Significant effect of interaction is not found among
It is seen in the present research that significant effect of interaction is found among standard, area and educational achievement. Significant effect of interaction is also found among gender, area and educational achievement. Significant effect of interaction is also found among gender, standard, area and educational achievement in the present research.

7.7 Implications:

It is clear from the present study that problem of examination anxiety was faced by many students. Following steps can be applied to reduce examination anxiety.

- Steps of reducing examination anxiety:
  1. Preparation of effective planning of study
  2. Healthy lifestyle
  3. Collection of accurate information
  4. Time management
  5. Positive attitude
  6. Development of rational thinking
  7. Test taking strategies
  8. Anxiety reduction techniques

- Examination anxiety reduction techniques:
  1. Before examination:
    - Learn materials thoroughly and organize materials needed for the test.
    - Try to establish a pattern of revision that gives time to relax and develop confidence.
    - Avoid speaking with any fellow students who have not prepared or who express negativity or who will distract your preparation.
- Use a mantra or meditation technique for relaxation.
- Try to distract your attention from anxious thoughts and keep your mind busy.
- Use self talk. In examination anxiety students often give themselves negative messages, ‘I cannot do this’, ‘I am going to fail’, ‘I am useless’. Try to consciously replace these thoughts with positive and encouraging thoughts: ‘This is just anxiety, it cannot harm me’. ‘Relax, concentrate, it is going to be Ok’
- Get a good sleep before examination.

(2) During examination:
- Don’t go for examination with empty stomach.
- Read the directions of question paper carefully.
- Keep yourself focused and positive.
- Pick a question and start writing without any nervousness.

(3) After examination:
- Whether you did well or not, be sure to follow through on the reward you promised yourself and enjoyed it.
- Try not to dwell on all the mistakes you might have made.
- Do not immediately begin studying for the next test and indulge in something relaxing for a while.

It is clear from the findings of the present research that Examination anxiety of low achiever students is higher than examination anxiety of high achiever students. It means that there is significant effect of educational achievement on the examination anxiety of students.

➢ Following suggestions can be given to low achiever students:
  - Review your personal strengths and weaknesses.
  - Develop good study habits.
  - Learn time management.
- Organize Reading material for the study.
- Visualize success, think logically and positively.
- If you are giving examination and feel panic or go blank, don’t feel nervous. Skip the question and select another question and start writing.
- Use positive reinforcement for yourself.
- List what did not work for improvement.
- List what did work for improvement.
- Review your past performance and learn from experience.

➢ Following suggestions can be given to teachers:

- Teachers should consider individual differences of the students.
- Teachers should not use insulting words to low achiever students in the classroom.
- Teachers should teach students that examination is only a technique of expressing their abilities and skills.
- Teachers should not only give importance to percentage or rank of the students but also give importance to their career development.
- Teachers should also keep in mind the aptitudes of students.
- Teachers should also play a role of counselor to low achiever students.

➢ Following suggestions can be given to parents:

- Parents should be sympathetic and co-operative to their children.
- Parents should take care that their children might not be frustrated during examination.
- Parents should avoid discussion in front of their children regarding the result of examination.
- Parents should not force their children for the first rank only to gain social prestige.
- Parents should teach their children that “Failure is the pillar of Success.”
- Parents should decide the career of their children according to their abilities, skills and aptitudes.

7.8 **Recommendations of Future Researches:**

(1) “A Study of the Examination Anxiety among the Higher Secondary School Students in the context of some Variables”

(2) “A Comparative Study of the Examination Anxiety among the Students of Science Stream and Arts Stream in the context of some Variables”

(3) “A Study of the Examination Anxiety among the Higher Secondary School Students in the context of Urban and Rural Area”

(4) “A Study of the Examination Anxiety among the Secondary School Students of Gujarati Medium and English Medium in the context of some Variables”

(5) “A Study of the Examination Anxiety among the Higher Secondary School Students of Gujarati Medium and English Medium in the context of Gender, Area and Mother Tongue”

(6) “A Comparative Study of the Examination Anxiety among the Higher Secondary School Students and Secondary School Students in the context of some Variables”

(7) “A Study of the Examination Anxiety among the Higher Secondary School Students in the context of Educational Achievement and Level of Intelligence”

(8) “A Study of the Examination Anxiety among the Secondary School Students in the context of Educational Achievement and Level of Intelligence”
(9) “A Study of the Examination Anxiety among the Higher Secondary School Students in the context of Gender, Area and Socio-Economic Status”

(10) “A Study of the Examination Anxiety among the Secondary School Students in the context of Gender, Area and Socio-Economic Status”

7.9 Conclusion:

This research is a study of the examination anxiety of the secondary school students of Gujarat State. Examination anxiety of the students was measured by the Examination Anxiety Scale. The researcher represented findings, outcome and implications of the study. The researcher also provided recommendations of future researches.
End Note

