CHAPTER-8

RESEARCH SUMMARY, FINDINGS, CONCLUSION

AND SUGGESTIONS

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RESEARCH SUMMARY, FINDINGS, CONCLUSION
AND SUGGESTIONS

8.1.0 Introduction
Educational research is very important to bring changes in the fields other than Education on the basis of its results. It helps in finding new concepts, which were not considered important or were totally neglected earlier. Educational research is also helpful in solution to many educational problems. In the present study, the researcher had constructed and standardized an Exam Anxiety Scale. The present chapter deals with the summary of the research work, findings and suggestions for the future research. Educational implications of the Exam Anxiety Scale were also discussed in the present chapter.

8.2.0 Summary of the Study
The summary of the present research study is as follows:

❖ **Statement of the Problem:**
CONSTRUCTION AND STANDARDIZATION OF AN EXAM ANXIETY SCALE

❖ **Objectives of the study:**
The following are objectives of the study:

1. To construct the Exam Anxiety Scale.
2. To standardized the Exam Anxiety Scale.
3. To determine the level of exam anxiety of the secondary school students.
4. To examine the effect of gender on the score of an exam anxiety of the secondary school students.
5. To examine the effect of the standard on the score of an exam anxiety of the secondary school students.
6. To examine the effect of the area on the score of an exam anxiety of the secondary school students.
7. To examine the effect of the educational achievement on the score of an exam anxiety of the secondary school students.

❖ **Variables of the Study:**

Following are variable of the present study:

1. Independent Variable
   - Gender - Boys & Girls
   - Standard - 9 Std. & 10 Std.
   - Area - Rural & Urban
   - Educational Achievement – Higher & Lower

2. Dependent Variable
   - Score of Exam Anxiety Scale

❖ **Hypothesis of the Study:**

Hypothesis of the present study are as follows:

**Ho**\(^1\) There is no significant difference between the mean score of Exam Anxiety Scale of boys and girls of secondary schools.

**Ho**\(^2\) There is no significant difference between the mean score of Exam Anxiety Scale of standard 9\(^{th}\) and 10\(^{th}\) students.

**Ho**\(^3\) There is no significant difference between the mean score of Exam Anxiety Scale of urban and rural area students of Secondary School.

**Ho**\(^4\) There is no significant difference between the mean score of Exam Anxiety Scale of higher educational achievement and lower educational achievement students of secondary school.

**Ho**\(^5\) There is no significant difference between the mean score of Exam Anxiety Scale of boys and girls of standard 9\(^{th}\).

**Ho**\(^6\) There is no significant difference between the mean score of Exam Anxiety Scale of boys and girls of standard 10\(^{th}\).
**Ho7** There is no significant difference between the mean score of Exam Anxiety Scale of boys of standard 9th and 10th.

**Ho8** There is no significant difference between the mean score of Exam Anxiety Scale of girls of standard 9th and 10th.

**Ho9** There is no significant difference between the mean score of Exam Anxiety Scale of rural and urban area boys of Secondary School.

**Ho10** There is no significant difference between the mean score of Exam Anxiety Scale of rural and urban area girls of Secondary School.

**HO11** There is no significant difference between the mean score of Exam Anxiety Scale of rural area boys and girls of Secondary School.

**Ho12** There is no significant difference between the mean score of Exam Anxiety Scale of urban area boys and girls of Secondary School.

**HO13** There is no significant difference between the mean score of Exam Anxiety Scale of rural and urban area of standard 9th students.

**Ho14** There is no significant difference between the mean score of Exam Anxiety Scale of rural and urban area of standard 10th students.

**Ho15** There is no significant difference between the mean score of Exam Anxiety Scale of rural area of standard 9th and 10th students.

**Ho16** There is no significant difference between the mean score of Exam Anxiety Scale of urban area of standard 9th and 10th students.

**Ho17** There is no significant difference between the mean score of Exam Anxiety Scale of rural area of boys of standard 9th and 10th.

**Ho18** There is no significant difference between the mean score of Exam Anxiety Scale of urban area of boys of standard 9th and 10th.
There is no significant difference between the mean score of Exam Anxiety Scale of rural area of girls standard 9th and 10th.

There is no significant difference between the mean score of Exam Anxiety Scale of urban area of girls standard 9th and 10th.

There is no significant difference between the mean score of Exam Anxiety Scale of higher educational achievement and lower educational achievement of standard 9th students.

There is no significant difference between the mean score of Exam Anxiety Scale of higher educational achievement and lower educational achievement of standard 10th students.

There is no significant difference between the mean score of Exam Anxiety Scale of higher educational achievement students of standard 9th and 10th.

There is no significant difference between the mean score of Exam Anxiety Scale of lower educational achievement students of standard 9th and 10th.

There is no significant difference between the mean score of Exam Anxiety Scale of higher educational achievement and lower educational achievement of rural area of secondary schools students.

There is no significant difference between the mean score of Exam Anxiety Scale of higher educational achievement and lower educational achievement of urban area of secondary school students.

There is no significant difference between the mean score of Exam Anxiety Scale of higher educational achievement of rural and urban area of secondary school students.

There is no significant difference between the mean score of Exam Anxiety Scale of lower educational achievement of rural and urban area of secondary school students.

There is no significant difference between the mean score of Exam Anxiety Scale of higher and lower educational achievement boys of secondary school students.
There is no significant difference between the mean score of Exam Anxiety Scale of higher and lower educational achievement girls of secondary school students.

There is no significant difference between the mean score of Exam Anxiety Scale of higher educational achievement of boys and girls of secondary school.

There is no significant difference between the mean score of Exam Anxiety Scale of lower educational achievement of boys and girls of secondary school.

Limitations of the Study:

Limitations of the present study are as follows:

1. This Study is limited to the standard 9th and 10th of Gujarati Medium Schools students of Gujarat State.
2. In present study Independent Variable like Gender, Standard, Area and Education Achievement is selected.

Research Design

Population and Sample of the Study

Population

In the present study, the population is limited to the secondary school students of Gujarati Medium of Gujarat State.

Sample

In the beginning the Exam Anxiety Scale is used as the experiment on the small group of around 100 students of std. 9th and 10th. In this way the effect of situations, their options and instructions is examined in pre-piloting.

After the pre-piloting its bigger sample is selected in piloting. To standardize the Exam Anxiety Scale on the sample of the whole Gujarat state, so researcher have to consider about the standard, gender, area and educational achievement the piloting is done on almost 371 sample students of total nine districts of Gujarat. t-value of each item is found out according to the response of the students.

The items in final scale are being selected on the base of item analysis and it is finalized on the sample’s of 2000 students.
The Gujarat state is divided into four sections for the study. They are (1) North Gujarat (2) South Gujarat (3) Middle Gujarat and (4) Saurashtra and Kutch. The selection of sampling is done based on the multi-stage sampling method means of stratified random cluster sampling method.

❖ **Tools of the Study**

The following tools are used for collecting the data of the present study.

1. The Exam Anxiety Scale (EAS). This tool is prepared and standardized by the researcher.
2. Examination Anxiety Scale prepared by Jenett U. Shukla. Researchers are prepared tool for Exam Anxiety Scale and is standardized it.

❖ **Method of the Study**

In the present study survey method is used.

❖ **Data Collection of the Study**

The data is collected directly from the selected sample school on the fixed day and at the fixed time after taking the permission of the principals.

❖ **Data Analysis of the Study**

1. Mean, Median, Mode, Variance, Mean Difference & SE_D.
2. Significance of difference of means between groups (t-Value)
3. Skewness and Kurtosis
4. Presentation of graphs as required
5. Establishing the norms, based on the significance of difference of means of the scores, determining their PR and T-scores.

▪ **Method for determining Reliability**

❖ **Test-Retest Reliability**

❖ **Split Half Reliability**

- Spearman-Brown
- Rulon / Guttman’s Formula
- Flanagan Formula
- Cronbach's Alpha (α)
- **Methods of Validity**
  - Face Validity
  - Concurrent Validity

### 8.3.0 Findings of the Study

Major findings regarding **Exam Anxiety Scale** are as follows:

#### ✦ Reliability of the Exam Anxiety Scale

<table>
<thead>
<tr>
<th>Sr. No.</th>
<th>Methods of Reliability</th>
<th>Sample</th>
<th>Reliability Coefficient ( r_{tt} )</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.</td>
<td>Test-Retest</td>
<td>100</td>
<td>0.74</td>
</tr>
<tr>
<td></td>
<td><strong>Split-Half</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>2.</td>
<td>(A) Spearmen and Brown Formula</td>
<td>304</td>
<td>0.819</td>
</tr>
<tr>
<td></td>
<td>(B) Rulon /Guttmann’s formula</td>
<td>304</td>
<td>0.817</td>
</tr>
<tr>
<td></td>
<td>(C) Flanagan’s formula</td>
<td>304</td>
<td>0.817</td>
</tr>
<tr>
<td>3.</td>
<td>Cronbach Alpha (( \infty ))</td>
<td>371</td>
<td>0.92</td>
</tr>
</tbody>
</table>

#### ✦ Validity of the Exam Anxiety Scale

<table>
<thead>
<tr>
<th>Sr. No.</th>
<th>Method of Validity</th>
<th>( r )</th>
</tr>
</thead>
</table>
| 1.      | **Face Validity:**
          | Face Validity for the items constructed by the researcher was deliberated by sending the tool to the subject experts and by subsequent improvements suggested by the experts. | -      |
| 2.      | **Concurrent Validity:**
          | Correlation between Exam Anxiety Scale and Examination Anxiety Scale prepared by Jenett U. Shukla. | 0.71   |

- Norms of the Exam Anxiety Scale were prepared according to variables which are given in chapter -7.

- **Level of Exam Anxiety of Secondary School Students**
  - The Secondary School students of sample having middle level of Exam Anxiety.
• **Findings based on the variables of the study:**

1) Effect of gender found on exam anxiety. Girl’s students have more exam anxiety than boy’s students.

2) There is no significant difference found between the mean scores of exam anxiety of std. 9th and 10th students. So, standard level of students is not effecting on exam anxiety.

3) Effect of area of residence found on exam anxiety. Students of urban area were more exam anxiety than students of rural area.

4) There is significant difference found between the mean scores of exam anxiety of higher achievement and lower achievement students. Achievement of students is affecting on exam anxiety. Lower Achievement Students have more exam anxiety than Higher Achievement students.

5) There is significant difference between the mean score of Exam Anxiety Scale of boys and girls of standard 9th. Girls have more exam anxiety than boys.

6) There is significant difference between the mean score of Exam Anxiety Scale of boys and girls of standard 10th. Girls students have more exam anxiety than boys’ students.

7) There is no significant difference between the mean score of Exam Anxiety Scale of boys of standard 9th and 10th.

8) There is no significant difference between the mean score of Exam Anxiety Scale of girls of standard 9th and 10th.

9) There is no significant difference between the mean score of Exam Anxiety Scale of rural and urban area boys of Secondary School.

10) There is significant difference between the mean score of Exam Anxiety Scale of rural and urban area girls of Secondary School. Girls of urban area were more exam anxiety than Girls of rural area.

11) There is no significant difference between the mean score of Exam Anxiety Scale of rural area boys and girls of Secondary School.

12) There is significant difference between the mean score of Exam Anxiety Scale of urban area boys and girls of Secondary School. Girls of urban area have more exam anxiety than boys of urban area.
13) There is significant difference between the mean score of Exam Anxiety Scale of rural and urban area of standard 9th students. Urban area of standard 9th students has more exam anxiety than rural area of standard 9th students.

14) There is significant difference between the mean score of Exam Anxiety Scale of rural and urban area of standard 10th students. Urban area of standard 10th students has more exam anxiety than rural area of standard 10th students.

15) There is no significant difference between the mean score of Exam Anxiety Scale of rural area of standard 9th and 10th students.

16) There is no significant difference between the mean score of Exam Anxiety Scale of urban area of standard 9th and 10th students.

17) There is no significant difference between the mean score of Exam Anxiety Scale of rural area of boys of standard 9th and 10th.

18) There is no significant difference between the mean score of Exam Anxiety Scale of rural area of boys of standard 9th and 10th.

19) There is no significant difference between the mean score of Exam Anxiety Scale of rural area girls of standard 9th and 10th.

20) There is no significant difference between the mean score of Exam Anxiety Scale of urban area girls of standard 9th and 10th.

21) There is significant difference between the mean score of Exam Anxiety Scale of higher educational achievement and lower educational achievement of standard 9th students. Lower educational achievement of standard 9th students has more exam anxiety than higher educational achievement students of 9th standard.

22) There is significant difference between the mean score of Exam Anxiety Scale of higher educational achievement and lower educational achievement of standard 10th students. Lower educational achievement of standard 10th students has more exam anxiety than higher educational achievement students of 10th standard.

23) There is no significant difference between the mean score of Exam Anxiety Scale of higher educational achievement students of standard 9th and 10th.

24) There is no significant difference between the mean score of Exam Anxiety Scale of lower educational achievement students of standard 9th and 10th.
25) There is significant difference between the mean score of Exam Anxiety Scale of higher educational achievement and lower educational achievement of rural area of secondary schools students. Lower educational achievement of rural area of secondary schools students has more exam anxiety than higher educational achievement of rural area of secondary schools students.

26) There is significant difference between the mean score of Exam Anxiety Scale of higher educational achievement and lower educational achievement of urban area of secondary school students. Lower educational achievement of urban area of secondary schools students has more exam anxiety than higher educational achievement of urban area of secondary schools students.

27) There is significant difference between the mean score of Exam Anxiety Scale of higher educational achievement of rural and urban area of secondary school students. Urban area of higher educational achievement students has more exam anxiety than rural area of higher educational achievement students.

28) There is significant difference between the mean score of Exam Anxiety Scale of lower educational achievement of rural and urban area of secondary school students. Urban area of lower educational achievement secondary school students has more exam anxiety than lower educational achievement of rural area of secondary school students.

29) There is significant difference between the mean score of Exam Anxiety Scale of higher and lower educational achievement boys of secondary school students. Lower educational achievement boys of secondary school have more exam anxiety than higher educational achievement boys of secondary school.

30) There is significant difference between the mean score of Exam Anxiety Scale of higher and lower educational achievement girls of secondary school students. Lower educational achievement girls of secondary school have more exam anxiety than higher educational achievement girls of secondary school.

31) There is no significant difference between the mean score of Exam Anxiety Scale of higher educational achievement of boys and girls.
32) There is significant difference between the mean score of Exam Anxiety Scale of lower educational achievement of boys and girls. Lower educational achievement of girls has more exam anxiety than Lower educational achievement of boys.

8.4.0 Educational Implications

Standardized Exam Anxiety Scale from the present study may be useful to Research Student for their research work. Students of 9th & 10th Standard should also use before exam, during exam & after exam to understand their exam anxiety.

Before the Exam
- Students should discuss the subject contents with their Subject Teacher and Classmates.
- Students should develop effective study habits and exam preparation skills.
- Students should well plan well in advance review of class materials of different subjects over several days rather than reading through last few days.
- Students should intensively review subjects few days before exams.
- Students should review text, notes, and homework problems.
- Students should take practice exam under exam-like conditions.
- Students should take sufficient rest and nutrition.
- Students should plan to arrive at the exam location early – this will allow you to relax, satisfy your physical need of water and urine.
- Students should avoid classmates who generate anxiety and tend to upset your stability.
- In case if waiting for the exam causes anxiety, distract yourself by reading a magazine or newspaper.
- Students should promise them self a post-exam reward.

During the Exam
- Students should Read the directions carefully.
- Students should plan their examination time. Avoid looking at the clock repeatedly – just focus on the exam.
- Students should not rush through the exam. Wear a watch and check it reasonably as you pace yourself. If it appears students will be unable to finish the entire exam, concentrate on those portions which you can answer well.
• Students should recheck their answers only if they have extra time – and only if you are not anxious.

• Students should not panic when other students start handing in their exam papers. There is no reward for being the first done.

• If required and allowed, students should get a drink, go to the bathroom or eat.

• If Students break their pencil lead, then go sharpen it.

• Students should think for a moment about the post-exam reward you promised yourself.

After the Exam

• Students should not try to dwell on the mistakes they might have made.

• Students should not talk to others about what was on the exam.

• Students should not immediately begin studying for the next exam. Go home and relax.

• Whether you did well or not, students should be sure to follow through on the reward they have promised themselves and enjoy it!

• After a couple of hours, if students feel so, they can try to list some questions which they have taken well that will help reduce your exam anxiety. Even if you list only a few, it's still a starting point that will lead to success of overcoming your exam anxiety.

8.5.0 Suggestions for Future Researches

Research is a cyclic and continuous process which never ends. The end of any research work suggests directions for new research work. A single person cannot study all the aspects of the problem. So that, every research leads to the new research. Based on the present research, the researcher recommends future researches as highlighted below:

1. Construction and standardization of Exam Anxiety Scale for Primary School Students.

2. Construction and standardization of Exam Anxiety Scale for Higher Primary Schools Students.

3. Construction and standardization of Exam Anxiety Scale for Higher Secondary School students.
4. Construction and standardization of Exam Anxiety Scale for College Students.
5. Construction and standardization of Exam Anxiety Scale for English Medium students for above mentioned standard.
6. A study regarding Exam Anxiety can be conducted taking up different variables such as Socio-Economical Status, Intelligence.
7. Comparative study of Academic Achievements and Exam Anxiety.
8. A study of Exam Anxiety between granted and non granted students of all the standards.
9. A study of Exam Anxiety of primary schools Students.
10. A study of Exam Anxiety of secondary schools Students.

8.6.0 Conclusion

The present study indicates that the Exam Anxiety Scale have satisfactory properties to use as a tool to measure the middle level of the Exam Anxiety of the students of Guajarati medium of secondary school of Gujarat state. Exam Anxiety Scale is very useful for the further research in this field; this tool will provide the facility to measure Exam Anxiety to the future researcher. This tool may be very useful to the teachers, parents and counselors to guide students for their future.

The aim of this research was to develop an Exam Anxiety Scale for secondary school student of Gujarat state. This Scale is help to know the level of Exam Anxiety among the secondary students which help to advise the students and their parents for their improvement.