

### ORIGINAL RESEARCH PAPER

#### Education

## A STUDY OF INFLUENCE OF LEARNING STYLES ON THE EXAMINATION ANXIETY OF SENIOR SECONDARY SCHOOL STUDENTS OF BHOPAL CITY

KEY WORDS: Learning styles, Examination anxiety, Senior Secondary School Students

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BSTRACT

This study aims to examine the influence of learning styles on the examination anxiety of senior secondary school students. A random selection of 502 senior secondary school students were done from Bhopal city. Style Inventory (LSI-MK) Hindi/English by P K. S. Misra. Student's Examination Anxiety Test (SEAT-AK) Hindi/English Dr. Madhu Agrawal and Miss Varsha Kaushal was used to find the relationship. The findings revealed that there is significant influence of learning styles both category 1 and category 2 on the level of examination anxiety of senior secondary school students.

### Introduction

Anxiety is among the major widespread psychological disorder in school going children and adolescents today. The foremost recognized source of anxiety among school going children are anxiety for the academic achievements, examination anxiety and high educational expectations from parents and society.

Examination anxiety is a type of performance anxiety, a feeling that develops when pressures exist on to do well. It brings sickness and an excessive worry about upcoming exams and a fear of being evaluated. Here the important part is that, not all the students face same level of examination anxiety. Definitely there is something that differentiates the crowd. Among many one of the important facts is the learning style of a learner.

Learning style is said to be cognitive, affective, and physiological characteristics indicators that indicates how a learner perceives, interacts and responds to the learning environment. This knowledge integration takes place through the four sensory modalities:

- 1. Visual (observing pictures, symbols or diagrams)
- 2. Auditory (listening, discussing)
- 3. Visual/iconic (reading and writing)
- 4. Kinesthetics (using tactile sensory abilities)

### Need of the Study

Experiencing stress before exam is a natural phenomenon among the students. With increased competition there has been a surge in this situation. Negative exam experience, fear of failure, parental pressure, lack of preparedness are few prominent causes which we generally tend to point out. What the really untouched part is, that even the learning style of a learner plays a great role. Rarely do we pay attention to this aspect. Adhering to this importance, a study was proposed with the topic "A Study of Influence of Learning Styles on the Examination Anxiety of Senior Secondary School Students of Bhopal City"

### Statement of the Problem

A Study of Influence of Learning Styles on the Examination Anxiety of Senior Secondary School Students of Bhopal City

### Review of the literature

"An Analysis of Learning Styles of Students among Primary Schools" was done by R. Sridhar Anand and Dr. M Rajendra Prasad (2019). Learning styles of 200 primary school students in Karaikal District Puducherry UT was analysed. The findings showed most of the students preferred to have kinesthetic learning style. "A Study on the Preferred Learning Styles of Students" was done by Delgin Rubayathy (2019) O'Brien's

Learning Channel Preference questionnaire was administered to 200 Ninth Class School students in Chennai. The finding showed most preferred learning style was visual and kinesthetic.

### **Objectives**

- 1. To study the significant difference between the mean scores of Examination Anxiety of senior secondary school students based on learning style category 1 (viz. Enactive Reproducing, Enactive Constructive, Figural Reproducing, Figural Constructive, Verbal Reproducing and Verbal Constructive).
- 2. To study the significant difference between the mean scores of Examination Anxiety of senior secondary school students based on learning style category 2 (viz. Enactive, Figural and Verbal).
- 3. To study the significant influence of the type of learning style category 1 on the level of examination anxiety of senior secondary school students.
- 4. To study the significant influence of the type of learning style category 2 on the level of examination anxiety of senior secondary school students.

### Hypothesis

- 1. Hypothesis 1: There is no significant difference between the mean scores of Examination Anxiety of senior secondary school students based on learning style category 1 (viz. Enactive Reproducing, Enactive Constructive, Figural Reproducing, Figural Constructive, Verbal Reproducing and Verbal Constructive).
- 2. Hypothesis 2: There is no significant difference between the mean scores of Examination Anxiety of senior secondary school students based on learning style category 2 (viz. Enactive, Figural and Verbal).
- **3. Hypothesis 3:** There is no significant influence of the type of learning style category 1 on the level of examination anxiety of senior secondary school students.
- **4. Hypothesis 4:** There is no significant influence of the type of learning style category 2 on the level of examination anxiety of senior secondary school students.

#### **Delimitations**

Study was delimited to Senior Secondary School Students of Class  $11^{\rm th}$  and  $12^{\rm th}$  belonging to different streams of Bhopal city. It had the sample size of 502 only.

### Methodology

This study is descriptive in nature and survey method was applied. The data was collected from schools with streams-science, arts, commerce, from government and private schools, MP and CBSE board, boys and girls.

#### Sample

A sample of 502 Senior Secondary School students were selected randomly.

#### Tools

1. Style Inventory (LSI-MK) Hindi/English by P K. S. Misra. It consists of 42 items divided into six area- Enactive Reproducing, Enactive Constructive, Figural Reproducing. Figural Constructive, Verbal Reproducing, Verbal Constructive. It is a self-report tool measure consisting 42 items in which students describe their learning style preferences. Each item belonged to three learning stylesenactive, figural, verbal. Each learning style had two components- 'Reproducing' and 'Constructive' with five response alternatives "Very Much, Much, Normal, Less and Very Less".

2. Student's Examination Anxiety Test (SEAT-AK) Hindi/English Dr. Madhu Agrawal and Miss Varsha Kaushal- The test consists 38 Yes – No type items The Split-Half Reliability of test is 0.87 and Validity is 0.89. It measures the high, low, normal, extremely low and extremely high anxiety of adolescent with three possible answers ranging from yes, sometimes, no.

### **Statistical Techniques**

Chi-square, t-test, ANOVA, Co-efficient of co-relation were used.

### **Analysis and Interpretations**

Hypothesis 1: There is no significant difference between the mean scores of Examination Anxiety of senior secondary school students based on learning style category 1 (viz. Enactive Reproducing, Enactive Constructive, Figural Reproducing, Figural Constructive, Verbal Reproducing and Verbal Constructive)

**Table 1:** ANOVA table, comparing the mean score of examination anxiety of senior secondary school students based on Learning style category l

|           | • •      |     |            |         |      |
|-----------|----------|-----|------------|---------|------|
| Source of | Sum of   | df  | Mean sum   | F-ratio | Sig. |
| variance  | squares  |     | of squares |         |      |
| Between   | 399.81   | 5   | 79.96      | 0.53    | NS   |
| With in   | 74574.01 | 496 | 150.35     |         |      |

NS:Not Significant

Table 1 reveals that the sum of squares between the group and within the group based on examination anxiety of senior secondary students with respect to learning style category are respectively 399.81, 74574.01. The respective mean sum of squares are-79.96, 150.35. F-value found to be 0.53 which is not significant at df 5 between the group and df 496 within the group. Thus, hypothesis "There is no significant difference between the mean scores of Examination Anxiety of senior secondary school students based on learning style category 1"is retained.

**Figure 1:** ANOVA table, comparing the mean score of examination anxiety of senior secondary school students based on Learning style category l



**Hypothesis 2:** There is no significant difference between the mean scores of Examination Anxiety of senior secondary school students based on learning style category 2 (viz. Enactive, Figural and Verbal)

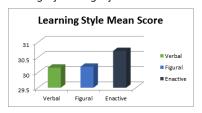
Table 2: ANOVA table, comparing the mean score of examination anxiety of senior secondary school students based on Learning style category 2

|           |          |     | • •         |         |      |
|-----------|----------|-----|-------------|---------|------|
| Source of | Sum of   | df  | Mean sum of | F-ratio | Sig. |
| variance  | squares  |     | squares     |         |      |
| Between   | 35.98    | 2   | 17.99       | 0.12    | NS   |
| With in   | 74937.83 | 499 | 150.18      |         |      |

NS:Not Significant

Table 2 reveals that the sum of squares between the group and within the group based on examination anxiety of senior secondary students with respect to learning style category 2 are respectively 35.98 and 74937.83. Their respective mean sum of squares are- 17.99 and 150.18. F-value is found to be 0.12 which is not significant at df 2 between the group and df 499 within the group. Thus, hypothesis "There is no significant difference between the mean scores of Examination Anxiety of senior secondary school students based on learning style category 2" is retained.

**Figure 2:** ANOVA table, comparing the mean score of examination anxiety of senior secondary school students based on Learning style category 2



level of examination anxiety of senior secondary school students

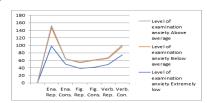
**Table 3:** Chi Square test for testing the influence of learning style category 1 on Level of examination anxiety of senior secondary school students

| Learning<br>Style | Level of examination anxiety |         |         | Total | Chi<br>Square | Sig |
|-------------------|------------------------------|---------|---------|-------|---------------|-----|
| Category 1        | Extremely                    | Below   | Above   |       | Value         |     |
|                   | low                          | average | average |       |               |     |
| Ena. Rep.         | 98                           | 49      | 6       | 153   | 8.32          | NS  |
| Ena. Cons.        | 50                           | 14      | 0       | 64    |               |     |
| Fig. Rep.         | 39                           | 15      | 2       | 56    |               |     |
| Fig. Cons.        | 42                           | 18      | 1       | 61    |               |     |
| Verb. Rep.        | 49                           | 16      | 2       | 67    |               |     |
| Verb. Con.        | 75                           | 22      | 4       | 101   |               |     |

NS: Not Significant

Table 3 shows influence of learning style category 1 on Level of examination anxiety of senior secondary school students. It shows no significant influence of learning style category 1 on Level of examination anxiety. The chi square value is 8.32 which is not significant at df= 5 and =0.05. Thus, hypothesis "There is no significant influence of the type of learning style category 1 on the level of examination anxiety of senior secondary school students." is retained.

Figure 3



**Hypothesis 4:** There is no significant influence of the type of learning style category 2 on the level of examination anxiety of senior secondary school students

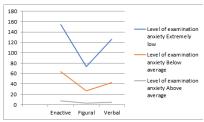
**Table 4:** Chi Square test for testing the influence of learning style category 2 on Level of examination anxiety of senior secondary school students

| Learning<br>Style             | Level of anxiety | examina          | Total            | Chi<br>Square     | Sig   |    |
|-------------------------------|------------------|------------------|------------------|-------------------|-------|----|
| Category 2                    |                  | Below<br>average | Above<br>average |                   | Value |    |
| Enactive<br>Figural<br>Verbal | 154<br>73<br>126 | 64<br>27<br>43   | 7<br>3<br>5      | 225<br>103<br>174 | 0.77  | NS |

NS: Not Significant

Table 4 shows influence of learning style category 2 on Level of examination anxiety of senior secondary school students. It shows no significant influence of learning style category 2 on Level of examination anxiety. The chi square value is 0.77 which is not significant at df= 5 and = 0.05. Thus, hypothesis "There is no significant influence of the type of learning style category 2 on the level of examination anxiety of senior secondary school students" is retained.

#### Figure 4



### Conclusion

Examination anxiety has become one of the major widespread psychological problems among the senior secondary school students. There are various causes. One of the overlooked causes, is the learning style of the learner'. The present study clearly shows that learning styles do have the effect on examination anxiety of senior secondary school students. So, it is important for a learner to know their own learning styles as it helps in their preparedness for the evaluation process. This could be easily achieved if even the education system could have the comprehensive series of changes and the matter could be emphasised.

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