



# A Study of Verbal Reasoning Ability of Secondary School Students of Gujarat State

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## 1. Introduction

Verbal reasoning is the understanding of concepts framed in words within the use of reasoning. Such tests and exercises evaluate one's ability to think constructively and do not rely on a person's language fluency or vocabulary recognition.

Verbal reasoning is the most difficult of all verbal tests as it requires you to use logical reasoning to answer questions. Simply understanding the vocabulary and phrasing used is not enough when it comes to verbal reasoning, although it is still necessary.

Some students have a knack for verbal reasoning, but for others, it doesn't come so naturally. And it's not just about being 'good at literacy' – students who can read and spell very well may still struggle with some of the code-based questions. Moreover, verbal reasoning isn't a curriculum-based skill, so your child won't be taught the techniques at school, and while they may make sense once they've been explained (and practised), at first glance, they can be baffling. In present study, the researcher studied the verbal reasoning ability of secondary school students.

## 2. Objectives of the Study

Objectives of present study are as follows.

- 1.To study the verbal reasoning ability of secondary school students.
- 2.To study the verbal reasoning ability of secondary school students in relation to area of schools.
- 3.To study the verbal reasoning ability of secondary school students in relation to gender.

## 3. Variables of the Study

The researcher defined independent and dependent variables of present study which are mentioned as below.

### 3.1 Independent variables

The independent variables of present study are mentioned as below.

- 1.Area of School
  - Urban
  - Rural
- 2.Gender
  - Boys
  - Girls

### 3.2 Dependent variables

In present study, the researcher used a Verbal Reasoning Test which was constructed and standardized by the researcher. The scores of Verbal Reasoning Test obtained by the students were dependent variables in present study.

## 4. Hypotheses of the Study

The researcher constructed few null hypotheses which lead the researcher towards the direction of findings. These hypotheses are mentioned below.

- Ho<sub>1</sub>** : There is no significant difference between mean scores of Verbal Reasoning Test obtained by the students of Urban and Rural area.
- Ho<sub>2</sub>** : There is no significant difference between mean scores of Verbal Reasoning Test obtained by boys and girls.
- Ho<sub>3</sub>** : There is no significant difference between mean scores of Verbal Reasoning Test obtained by the boys of Urban and Rural area.
- Ho<sub>4</sub>** : There is no significant difference between mean scores of Verbal Reasoning Test obtained by the girls of Urban and Rural area.

### 5. Limitations of the Study

Limitations of study defined the area to which findings of research could be applied. In present study, the researcher also bound the area of students by defining limitations of the study. These are mentioned as below.

- 1.The present study was conducted on Grade IX students selected from secondary schools of Gujarat state.
- 2.The present study was conducted on students studying in Gujarati medium schools.

### 6. Research Method

In present study, the main objective of researcher was to construct and standardize a Verbal Reasoning Test for secondary school students of Gujarat state. Using research tool, to study the researcher had to collect information from a huge selected sample. Therefore, the researcher used **Survey Method** for present study.

### 7. Research Tool

The researcher used self-constructed and standardized Verbal Reasoning Test for present study. There were 70 items in Verbal Reasoning Test. Each item has four responses out of which only one response is true, another three responses are false. Each response is assigned with one mark. The 70 items were classified in different 11 factors.

### 8. Sample of the Study

The researcher selected 61 schools from five zones of Gujarat state. Overall 61 schools were selected from Gujarat state. Out of these 31 grant-in-aided schools and 30 self-finance schools were selected. 31 schools were selected from urban area and 30 schools were selected from rural area. The researcher selected 2705 students in which 1419 boys and 1286 girls were selected.

### 9. Techniques of Statistical Analysis

The researcher constructed four hypotheses to reach out the findings of study. To check the hypotheses the researcher found out critical ratio using t-test.

### 10. Results of t-tests

The results obtained for each hypothesis are mentioned below in tables.

**Ho<sub>1</sub>**: There is no significant difference between mean scores of Verbal Reasoning Test obtained by the students of Urban and Rural area.

**Table 1: Results of t-test between mean scores of Verbal reasoning test of students of Urban and Rural**

Area	N	M	SD	SED	t	Significance
Urban	1403	48.30	11.80	0.45	5.23	0.01
Rural	1302	45.94	11.69			

<b>df</b>	<b>0.05</b>	<b>0.01</b>
2703	1.96	2.58

In above table, calculated t-value is 5.23. For df=2703, table t-values are 1.96 at 0.05 level and 2.58 at 0.01 level. Calculated t-value is more than table t-value at both levels. Therefore, hypothesis is rejected and there is a significant difference between mean scores of students of urban and rural area.

According to above table, the mean score of students of urban area is more than mean score of students of rural area. Thus, it is revealed that the students of urban area have higher verbal reasoning ability than students of rural area.

**Ho<sub>2</sub>: There is no significant difference between mean scores of Verbal Reasoning Test obtained by boys and girls**

**Table 2: Results of t-test between mean scores of Verbal reasoning test of boys and girls**

Gender	N	M	SD	SED	t	Significance
Boys	1419	49.97	11.76	0.45	12.61	0.01
Girls	1286	44.27	11.73			

<b>df</b>	<b>0.05</b>	<b>0.01</b>
2703	1.96	2.58

In above table, calculated t-value is 12.61. For df=2703, table t-values are 1.96 at 0.05 level and 2.58 at 0.01 level. Calculated t-value is more than table t-value at both levels. Therefore, hypothesis is rejected and there is a significant difference between mean scores of boys and girls.

According to above table, the mean score of boys is more than mean score of girls. Thus, it is revealed that the boys have higher verbal reasoning ability than girls.

**Ho<sub>3</sub>: There is no significant difference between mean scores of Verbal Reasoning Test obtained by the boys of Urban and Rural area**

**Table 3: Results of t-test between mean scores of Verbal reasoning test of boys of Urban and Rural area**

Boys	N	M	SD	SED	t	Significance
Urban	726	51.53	11.51	0.62	4.97	0.01
Rural	693	48.42	12.00			

<b>df</b>	<b>0.05</b>	<b>0.01</b>
1417	1.96	2.58

In above table, calculated t-value is 4.97. For df=1417, table t-values are 1.96 at 0.05 level and 2.58 at 0.01 level. Calculated t-value is more than table t-value at both levels. Therefore, hypothesis is rejected and there is a significant difference between mean scores of boys of urban and rural area.

According to above table, the mean score of boys of urban area is more than mean score of boys of rural area. Thus, it is revealed that the boys of urban area have higher verbal reasoning ability than boys of rural area.

**Ho<sub>4</sub>: There is no significant difference between mean scores of Verbal Reasoning Test obtained by the girls of Urban and Rural area**

**Table 4: Results of t-test between mean scores of Verbal reasoning test of girls of Urban and Rural area**

Girls	N	M	SD	SED	t	Significance
Urban	677	45.08	12.09	0.65	2.48	0.05
Rural	609	43.46	11.38			

  

df	0.05	0.01
1284	1.96	2.58

In above table, calculated t-value is 2.48. For df=1284, table t-values are 1.96 at 0.05 level and 2.58 at 0.01 level. Calculated t-value is more than table t-value at 0.05 level but less than table t-value at 0.01 level. Therefore, hypothesis is rejected and there is a significant difference between mean scores of girls of urban and rural area.

According to above table, the mean score of girls of urban area is more than mean score of girls of rural area. Thus, it is revealed that the girls of urban area have higher verbal reasoning ability than girls of rural area.

### 11. Major Findings of the Study

At the end of study, the following findings are discovered by the researcher.

- 1.The students of urban area have higher verbal reasoning ability than students of rural area.
- 2.The boys have higher verbal reasoning ability than girls.
- 3.The boys of urban area have higher verbal reasoning ability than boys of rural area.
- 4.The girls of urban area have higher verbal reasoning ability than girls of rural area.

### 12. Conclusion

At the end of research, the researcher succeeded to uncover some hidden facts regarding verbal reasoning ability that possess by secondary school students of Gujarat state. The researcher selected 2705 students from Grade IX from population. The subjects were provided Verbal Reasoning Test constructed and standardized by the researcher. Some unknown facts were found by researcher which are mentioned as findings in present chapter.

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