Logical thinking of secondary school students in relation to their gender and type of school: A Comparative analysis

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Abstract

Logical thinking skills help us to develop in many manners that are by achieving academic self-improvement. You can evaluate your personal performance. These skills also help you to become a better squad participant because you control your emotion like your age you doubt your judgment. The purpose of the study was to reveal the compare of logical thinking of secondary school students in relation to their gender and type of school. This was an empirical research with a sample of 600 students studying randomly selected from the five blocks of Rohtak, Haryana. The study was conducted through descriptive survey method and Logical Thinking Test by Kumar and Tiwari (2012) was used for the collection of data. Statistical technique t-test was used to analysis the data. The major findings of the study are:

1) There is a no significant difference between logical thinking of male and female secondary school students.
2) There is a significant difference between logical thinking of Government and private secondary school students.

Keywords: logical thinking, gender and type of school

Introduction

Cognitive ability like problem solving Logical thinking skills are important for every type of work. People face to troubles that are natural to the area of their expertise. So more logical thinking skill leads to a better administrative process with less mistakes. Logical thinking skills help us to develop in many manners that are by achieving academic self-improvement. You can evaluate your personal performance. These skills also help you to become a better squad participant because you control your emotion like your age you doubt your judgment. They also help to increase the capacity to invent things because you inline to make many logical association, across subject etc. All these improvement of an individual leads to directional success. Logical thinking requirements to engage a progressive analysis i.e. by giving importance to all accessible choices, using specifics and facts, and taking important judgment based on all advantage and disadvantage. They do not obtain into account, the Logical thinking is basically a topic of systematize and control information. Difficulty or situation that engages logical thinking call for organization, for relations between facts, and for handcuffs of way of thinking that “makes sense.” Research into realistic thinking process has shown that there are two diverse category of response that many people have, with moderately few individuals decrease in the core. On one hand, there is the difference of opinion response. One human being sees the condition as a chance for a small piece of intellectual exercise, in accretion to a difficulty in require of declaration. Such a human being experience might be called the dissatisfaction impulse; it may be defined as snap reaction emotion of fear, which initiates old experiences of having been compressed by situations comparable to the one presenting itself. By different means, a logical thinker has opportunity to have mastery upon precise basic mental events that do well in a wide diversity of situations and has been content in diverse habits for using these mental processes.
successfully. The human being who has a dislike for logical thinking has found this type of experience all time ineffective, defeat and unlikable. Due to no one will often look for our experiences that pressure his or her self-esteem, this person falls into a self-reinforcing outline of avoid experience that would help to develop these skills. It has been recognized that precise guidance in logical thinking processes can make people "smarter" (Aggarwal, 2001) \(^1\)

**Statement of the Problem:-** “Logical Thinking Of Secondary School students in relation to their gender and type of school”

**Operational Definitions**

**Logical Thinking:** Logical thinking skills help us to develop in many manners that are by achieving academic self improvement. You can evaluate your personal performance. These skills also help you to become a better squad participant because you control your emotion like your age you doubt your judgment

**Gender:** Gender is defined as the generally construct roles and characteristically links with males and females.

**Types of School:** Types of school defined as students of govt. school and students of private school.

**Objectives**
1. To study and compare the logical thinking of male and female secondary school students.
2. To study and compare the logical thinking of Government and private secondary school students.

**Hypotheses**
1. There exist no significant differences between logical thinking of male and female secondary school students.
2. There exist no significant differences between logical thinking of Government and Private secondary school students.

**Methodology of the Study**
The method used for the study was descriptive survey and type of sampling followed was random sampling technique.

**Tools Used**
- Logical Thinking Test by Kumar and Tiwari (2012)

**Sample of the Present Study**
A sample of the representative proportion of the entire population, The sample consisted of 600 secondary school students were taken on the basis of random sampling technique.

**Related Literature**
Zaman et al. (2017) \(^{10}\) assessed Interaction analysis of gender, rural urban divided shows that some items show interaction items show interaction effect by behaving differently in response to background variables. A test of reasoning was administered to a sample of above 500. The Performance of IX class students in logical thinking The results show differential performances of the students. Item wise performance with background variables as school Sector shows the performance of private school students was significantly better than students of public schools.

Similarities male and urban students performed well than male and rural students respectively. Harish (2010) \(^3\) conducted a study on ‘The Impact of Integrated Critical Thinking on Achievement in Mathematics on secondary students.’ The study revealed that there was a significant difference between the post test achievement in mathematical of control and experimental groups, there was no significant between the mean scores of boys and girls in the post test achievement and there was a significant interaction between group and gender on total integrated critical thinking skills on achievement after the intervention program

<table>
<thead>
<tr>
<th>Table 1: Means, S.D and ‘t’ ratio of logical thinking of male and female secondary school students.</th>
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<td><strong>Group Statistics</strong></td>
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<td>Gender of Respond</td>
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<td>Logical Thinking</td>
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As depicted from table 1 The mean score of logical thinking of male and female secondary school students are 26.33 and 27.30 with SD’s 8.29 and 8.78 respectively. The ‘t’ value came out from the above two groups is 1.36 which is less than the tabulated value which is 1.96 at 0.05, level of significance and 2.58 at 0.01 levels of significance which clearly shows that are null hypothesis “There exist no significant difference between logical thinking of male and female secondary school students” is retained. It can be understood graphically through diagram as fig.1 shown below

![Fig 1: Mean logical thinking scores of male and female secondary school students](http://www.allresearchjournal.com)

**Table 2: Means, S.D and ‘t’ ratio of logical thinking of govt. and private secondary school students**

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*Significant at 0.01 level

From table 2 points out that the mean score of logical thinking of Government and private school students are 25.80 and 27.92 with SD’s 10.54 and 6.44 respectively. The t-value came out from the above two groups is 3.04 which is significant at 0.01. Therefore, the hypothesis is rejected

\(^{1}\) Aggarwal, 2001
\(^{2}\) Harish, 2010
\(^{3}\) Zaman et al., 2017
\(^{10}\) Harish (2010)
which means there is significance difference between logical thinking of Government and private secondary school students. It can be understood graphically through diagram as fig.1 shown below

![Diagram showing logical thinking scores of government and private secondary school students]

**Fig 2: Mean logical thinking scores of govt. and private secondary school students**

**Finding**

1. In the present study it was found that there is no significant differences between logical thinking of male and female Secondary school students. Female Secondary School Students were found more logical thinking than male secondary school students.

2. In the present study it was found that there is significant difference between logical thinking of Government and Private Secondary school students. Private secondary school students were found more logical thinking than govt. secondary school students.

**Conclusion**

With regard to the previous research finding, major difference were found in logical thinking of government and private secondary school students. Because it is believed that private school provided better facilities to students in comparison to government schools. Hence students in these schools are logical thinking. But it was found that there is no significant differences between logical thinking of male and female Secondary school students. The reason may be the opportunities both male and female are equal, in the modern world of technology and science and both are equally competent in their own field.

**Education implication**

- In schools curriculum should be designed in a way to improve the logical thinking of the students, curriculum should be designed in a way to improve the logical thinking of the students, management games can be introduced for the same.

**References**

5. Harish. Conducted a study on ‘The Impact of Integrated Critical Thinking on Achievement in Mathematics on secondary students.’ 2010
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10. Zaman *et al.* Assessed Interaction analysis of gender, rural urban divided shows that some items show interaction items show interaction effect by behaving differently in response to background variables 2017.