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To Study the Mathematical Reasoning Ability of High school Girl Students of Different Boards of Ahmedabad City

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Abstract

Since olden time's females were the part of household activities in India. There were values, beliefs and culture that restricted females for education. But now a days, females are taking part equaly with males in every activity. Through education comes the awareness of critical environmental challenges facing the world (such as climate change, depleting natural resources and biodiversity loss) and through education individuals can be enabled to take actions to ensure environmental sustainability. Through education young men and women know their rights and are at a better position to claim them. Education dispels ignorance, encourages positive attitude, inspires self-confidence, boosts moral values, teaches responsible behavior and helps young citizens make informed and better decisions in all spheres of life. This way, slowly but steadily, education builds the foundation for better societies and prosperous nations. Education is a critical human progression. It is a fundamental human right of every child to go to school. But regrettably millions are still being left behind. This reminds us of the onerous responsibility we have: to reach all children, especially the disadvantaged, the vulnerable and the marginalized. To help them become capable of fulfilling their dreams. To help them grow to their full potential. To make them better humans and responsible citizens, we have to measure different types of abilities. This subject is selected with inclination to know about the logical power (Mathematical Reasoning Ability) of girl students and their improvement in taking decision regarding her future. Thus, in the present research paper, the investigator discusses about the MRA of girl students of different boards the summary, findings and implications of the research and suggestions made for future researches.

Introduction

Reasoning tests are to be distinguished from those of general Logical and from tests of skill or proficiency acquired after learning. They should be distinguished, too, from

educational achievement tests, which are designed to measure an individual's quantity and quality of learning in a specified subject to study after a period of instruction.The students should note that Reasoning is differentiated from skill and proficiency. Skill means the ability to perform a given act with ease and precision. Proficiency has much the same meaning, except that it is more comprehensive; for it includes not only skills in certain types of motor and manual activities, but also in other types of activities as shown by the extent of one's competence in language, bookkeeping, history, economics, mathematics. We may speak of one's degree of proficiency in any type of performance. On the other hand, when we speak of an individual's reasoning for a given type of activity, we mean the capacity to acquire proficiency under appropriate conditions; that is, his potentialities at present, as revealed by his performance of selected tests that have predictive value.

Some Definition of Reasoning

- "Reasoning is the term applied to highly, purposeful controlled selective thinking."

Gates

- "Reasoning is the ability to utilize the past experiences in the drawing of practical and theoretical conclusion and to solve problems."

Win Sent

Characteristics of Reasoning Ablity

- Reasoning is acquired in heredity by born.
- Favorable circumstances and training is necessary for maintaining the Reasoning.
- The level of the Reasoning may be leas of more and it cannot be increase through training.
- Reasoning and Logical both are different matter.
- Individual differences exist in the Reasoning.
- Many kinds of specific Reasoning are existing.
- The level of various Reasoning may be differing in a person.

Rational of the study:

There were many related such study coundected in the past. But all previous studies were on other subject but no one concerated on girl students of different boards so this study has given idea about different boards and their girl's students Mathematical Reasoning Ability.

Variables:

- **Independent Variables: 1. Boards:** (i) GSEB (ii) CBSE (iii) ICSE **2.Gender: (**i) Girls (ii) Boys and **3. Standard** : X^{th}

- **Depends Variables :** Mathematical Reasoning Ability Test Scores (MRA)

Aim and Objectives

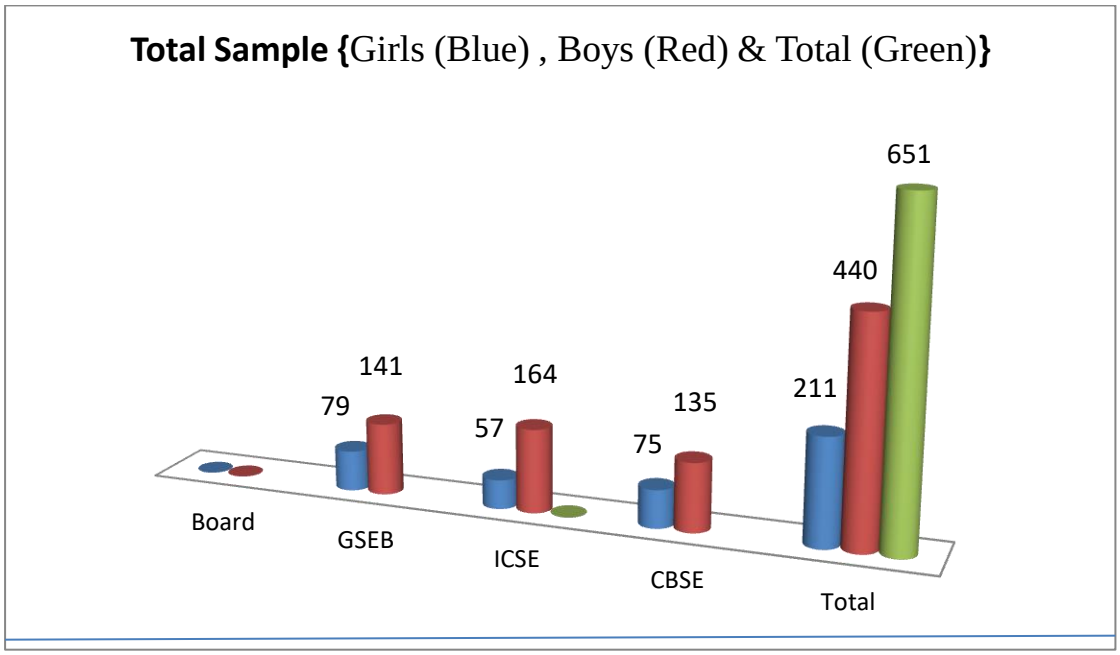
- ❖ To study the effect of board on mathematical reasoning ability (MRA) of the high school Girls students.
- ❖ To study the effect of interaction between different boards on mathematical reasoning ability (MRA) of the high school Girls students.
- ❖ To study the effect of interaction among independent variables on mathematical reasoning ability (MRA) of different boards students.

Hypothesis of the study

- ▶ Ho_1: There will be no significant difference between the mean score of Mathematical Reasoning Ability of Girls students of GSEB and Girls students of CBSE.
- ▶ Ho_2: There will be no significant difference between the mean score of Mathematical Reasoning Ability of Girls students of GSEB and Girls students of ICSE.
- ▶ Ho_{03}: There will be no significant difference between the mean score of Mathematical Reasoning Ability of Girls students of ICSE. and Girls students of CBSE.

Population and Sample of the Study

The inquiry based on a small fraction of units from the population is called a sample. In the present research, 651 students of standard X were the sample of Ahmedabad city of Gujarat State.



Tool of the Study

Any instrument used to collect date consistent with the objectives of the study is known as tool. In the research, the researcher will use the following tools to collect the data.

Tool : Self prepared Mathematical Reasoning Ability test for the students of Standard X of different board was used to measure level of achievements in maths.

Method of the Study

Survey method was adopted to know the extent of Mathematical Reasoning Ability of high school students of different boards of Ahmedabad city. Self prepared Mathematical Reasoning Ability test for the students of Standard X of different board was used to measure level of achievements in maths. In the present study, the researcher has divided whole the educational research in the various parts and prepared it like that the whole research work can get proper justice.

Limitation of Study

There are various limitations in every research. If any question is to be resolved widely then for that more time and more persons are to be needed.

- Other than Gujarat State of India are not included in the present research.
- Other than English medium schools of standard X^{th} of Gujarat State are not included in the present research.
- Other than Three Board (CBSE,ICSE,GSEB) of India are not included in the present study

Data collection and analysis:

Investigator collected raw data, gave them scores to each students of different boards and arrange the scores in sequence based on the study demands. Investigator used **t-test** to study the hypothesis. And compaire their mean scores to give the openion based on the objectives.

Descriptive Statistics

GSEB(Girls)		***ICSE(Girls)***		***CBSE(Girls)***	
Mean	72.34	Mean	90.07	Mean	77.00
Standard Error	1.87	Standard Error	2.18	Standard Error	2.13
Median	72.00	Median	90.00	Median	79.00
Mode	58.00	Mode	97.00	Mode	78.00
Standard Deviation	16.64	Standard Deviation	16.45	Standard Deviation	18.44
Sample Variance	276.92	Sample Variance	270.74	Sample Variance	340.00
Kurtosis	-0.17	Kurtosis	-0.30	Kurtosis	-0.32
Skewness	0.25	Skewness	-0.30	Skewness	-0.37
Range	80.00	Range	74.00	Range	86.00
Minimum	37.00	Minimum	46.00	Minimum	26.00
Maximum	117.00	Maximum	120.00	Maximum	112.00
Count (N)	79.00	Count	57.00	Count (N)	75.00

Study of null hypothesis:

Study-1

To compare the respondents of CBSE Girls students and GSEB Girls students of standard Xth. It can be observed that the value of '**t**' is less than 1.96(0.05) there for, Ho_1: There will be no significant difference between the mean score of Mathematical Reasoning Ability of Girls students of GSEB and Girls students of CBSE. **is accepted.**

Study-2

To compare the respondents of ICSE Girls students and GSEB Girls students of standard Xth. It can be observed that the value of '**t**' is more than 1.96(0.05) there for, Ho_2: There will be no significant difference between the mean score of Mathematical Reasoning Ability of Girls students of GSEB and Girls students of ICSE. **is not accepted.**

Study-3

To compare the respondents of ICSE Girls students and CBSE Girls students of standard Xth. It can be observed that the value of '**t**' is more than 1.96(0.05) there for, Ho_3: There will be no significant difference between the mean score of Mathematical Reasoning Ability of Girls students of ICSE. And Girls students of CBSE **Is not accepted.**

Findings:

- It is also seen that (Based on their Mean scores of Mathematical Reasoning Ability) CBSE Girls students are more superior to GSEB Girls students.
- It is also seen that (Based on their Mean scores of Mathematical Reasoning Ability) ICSE Girls students are more superior to GSEB Girls students.
- It is also seen that (Based on their Mean scores of Mathematical Reasoning Ability) ICSE Girls students is more superior to CBSE Girls students.

Conclusion:

On the basis of the findings of the study, investigator can say that Mathematical Reasoning Ability of students can improve by giving them intense practice through sceentific method. So we should provide more opportunities to improve their Mathematical Reasoning Ability and include it in the education curriculum of their respective grades.

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