ISSN: 2581-6918 (Online), 2582-1792 (PRINT)



A Comparative Study of Reasoning Ability in Relation to Private and Government School Students

Harshita Dubey, M.Ed. Researcher Scholar, Department of Education, Savita Saloman, (Ph.D.), Department of Education, Pragati College, Raipur, Chhattisgarh, INDIA

ORIGINAL ARTICLE





Corresponding Authors

Harshita Dubey, M.Ed. Researcher Scholar, Department of Education, Savita Saloman, (Ph.D.), Department of Education, Pragati College, Raipur, Chhattisgarh, INDIA

shodhsamagam1@gmail.com

Received on : 20/07/2022

Revised on :----

Accepted on : 27/07/2022

Plagiarism : 09% on 21/07/2022



Plagiarism Checker X Originality Report Similarity Found: 9%

Date: Thursday, July 21, 2022 Statistics: 278 words Plagiarized / 3112 Total words Remarks: Low Plagiarism Detected - Your Document needs Optional Improvement.

A COMPARATIVE STUDY OF REASONING ABILITY IN RELATION TO PRIVATE AND GOVERNMENT SCHOOL STUDENTS. * HARSHITA DUBEY, Researcher, M.Ed. Scholar, Pragati College, Raipur **Dr. SAVITA SALOMAN, Guided, Assistant Professor, Pragati College, Raipur ABSTRACT - Education is the process of facilitating learning or the acquisitions of knowledge, skills, values, beliefs and habits. Education and education system are the backbone of society.

Reasoning is used not only when we want to solve an immediate problem but also when we anticipate future problems. Reasoning plays a significant role in one's adjustment to the environment. It not only determines one's cognitive activities but also influences the

ABSTRACT

Education is the process of facilitating learning or the acquisitions of knowledge, skills, values, beliefs and habits. Education and education system are the backbone of society. Reasoning is used not only when we want to solve an immediate problem but also when we anticipate future problems. Reasoning plays a significant role in one's adjustment to the environment. It not only determines one's cognitive activities but also influences the behavior and personality. The present research study was primary a comparative study. The sample was drawn only from five English medium schools and five Hindi medium schools in Raipur. The study was limited to the Reasoning ability of the student. The study was conducted on both Government and Private school students. The method adopted for this study is descriptive and statistical in nature. The investigator has chosen the area in Raipur district of Chhattisgarh as the population for the study. The tools used for present study is "reasoning ability test" by L. N. Dubey (Retd). Results revealed that Private school boys are having low reasoning ability than girls. Government school boys are having low reasoning ability than girls. Private or Government school boys are having low reasoning ability than the Private or Government school girls. Government school students are having low reasoning ability than the Private school students.

KEYWORDS

Relation, Private & Government School, Students.

INTRODUCTION

"Reasoning sharpens our mind through logical thinking and brings form and line to our personality."

Education is the process of teaching or learning. It is continuous and a lifelong process. It is the development and the process in which end by which knowledge, character and behaviour of the students are shaped and molded. In a wider sense of education, it is not the communication and information by the teacher of the acquisition of the knowledge by the child. It is the total development of the personality. In this sense, education consists of all those experience is which affect the individual from birth till death. Thus, Education is that process by which an individual freely develops himself according to this nature in a free and uncontrolled environment. In this way education is the lifelong process of growth and development. It begins up the inherent qualities present in the child at the time of his birth. It also influences his or her perception, understanding and attitude towards the society.

Reasoning ability refers to the power and effectiveness of the processes and strategies used in drawing in inferences, reaching conclusions, rhyming at solutions and making decisions based on available evidence. The topic of reasoning abilities is multidisciplinary it is studied in psychology (differential and cognitive), education, neuroscience, genetics, philosophy and artificial intelligence. There are several distinct forms of reasoning, implicating different reasoning abilities. "Reasoning or the power of reasoning is another power which has been exclusively given to him." If you give reason you become ordinary if you stop giving reason you become extraordinary.

Meaning of Reasoning

It is one of the best forms of controlled thinking consciously towards the solution of a problem. It is realistic in the sense that the solution is sought always in reference to the reality of the situation. We can solve many problems in our day-dreams, dreams and imaginations but they are unrealistic solutions. S Sherman defined, "reasoning is a process of thinking during which the individual is aware of a problem identifies, evaluates, and decides upon a solution." Reasoning comes in diverse forms, from everyday decision-making processes to powerful algorithms that power artificial intelligence. You can find formal reasoning in established disciplines such as mathematics, logic, artificial intelligence and philosophy. Throughout all circumstances, however, you can categorize reasoning into seven basic types. Understanding the types of reasoning can help you evaluate and advance your decision-making process.

Meaning of Reasoning Ability

It is one of the best forms of controlled thinking consciously towards the solution of a problem. It is realistic in the sense that the solution is sought always in reference to the reality of the situation. We can solve many problems in our day-dreams, dreams and imaginations but they are unrealistic solutions. Reasoning is used not only when we want to solve an immediate problem but also when we anticipate future problems. Reasoning places a significant role in one's adjustment to the environment. It not only determines one's cognitive activities but also influences the behaviour and personality.

Definition of Reasoning Ability

"Reasoning is a special mental capacity, a stepwise thinking with a purpose or goal in mind."

Garrelt

"Reasoning is a process of thinking involving inference or of solving problems by employing general."

James Drever

Importance of the Study

Young children always have that innate yearning to know everything around them. They are naturally curious and have a plethora of questions beyond the usual logic. For thriving in this 21st-century world, one thing is crystal clear- to develop and prepare today's children for skills that go beyond the grading system. Few such skills are logical reasoning, cognitive ability, and critical thinking. These skills together, in general, are needed to make accurate decisions in every phase. Logical reasoning is the foundation for math, computer science, and many other disciplines. Competitive exams such as the science and math Olympiads aim to gauge students' progress in this lifelong skill. The research problem should have to be manageable within your resources; otherwise it will become difficult for you to undertake it. You should know about the time, energy and money that you have in order to design a manageable research. A test of reasoning ability is regarded as a device intended to estimate probability of success in occupations, without implying it measures psychological functions that are essentially different in form from those required in order types of mental activity.

Earlier test in High schools have stated that the subtests evaluate experimental bent, clarity of definition suspended versus snap judgment, reasoning, inconsistencies, fallacies, induction, deduction and generalization, caution and thoroughness, discrimination of values in selecting and arranging experimental data, accuracy of interpretation and accuracy of observation. Thus the quality of reasoning education is improved by the reasoning ability test.

Research Work Done Previsously Researches Done In India

- 1. **Gupta & Kumar (2010):** Studies the relationship of mental health with emotional and self efficacy amount 200 (100 male and 100 female) college students from Kurukshetra University. The result indicates the emotional intelligence and self efficacy or positively related with mental health. It is also reveal that male students were better than female students in terms of mental health, emotional, intelligence and self efficacy.
- 2. Singh & Imram (2013): Examine the effects of gender, time spent on internet browsing on mathematics achievement of class 9th students of south east Bihar. The study consist of 975 made and 969 female students of 36 schools of south east Bihar. The mathematics achievement test and personal background assessment questionnaire were used for data collection. While Ttest, F-test followed by Duncan's Mean test were used for statistical analysis. The result showed that male students had better achievement in mathematics than female students. Further the result showed that participation in sports activities enhances the performance in mathematics and English medium students had higher mathematics achievement in comparison to Hindi medium students.

Researches Done In Abroad

- 1. Ackerman & Woltz, (1994): Attributing individual differences in reasoning to individual differences in working memory capacity parallels the attentional explanation. Many researchers have claim that a major source of individual differences on reasoning task lies in how much information one must maintain in working memory especially while affecting some transformation of that information.
- 2. **Bara Bucciarelli, and Johnson laird (1995):** Identify the following factors that affect syllogistic inference in the mental models approach: 1 assembling a propositional representation of premises. 2 constructing models that integrate information from premises. 3 formulating a conclusion which integrates relationships not expressed in the premises. 4 searching for alternative models to refute conclusions and 5 recognising similarities between models. All these processes require

working memory resources. Limitations of working memory are considered specially important in understanding individual differences in reasoning in this theory because working memory limits the number of mental models that can be held in mind at once. Individuals with limited working memory capacity can fail to generate enough models to evaluate the validity of a conclusion.

Statement of the Problem

A comparative study of reasoning ability in relation to private and government school students.

Objectives of the Study

- 1. To study the effect of Reasoning Ability in relation to private school students.
- 2. To study the effect of Reasoning Ability in relation to Government school students.
- 3. To study the effect of Reasoning Ability in relation to boys & girls of school students.
- 4. To study the effect of Reasoning Ability in relation to private and government school students.

Hypothesis of the Study

- **H**₁: There will be no significant difference in the Reasoning Ability in relation to Private School Students.
- **H**₂: There will be no significant difference in the Reasoning Ability in relation to Government School students.
- **H**₃: There will be no significant difference in the Reasoning Ability in relation to boys and girls of School students.
- **H**₄: There will be no significant difference in the Reasoning Ability in relation to Private and Government School students.

Operational Definitions of Key Terms Reasoning Ability

Reasoning is the ability to assess things rationally by applying logic based on new or existing information when making a decision or solving a problem. Reasoning allows you to weigh the benefits and disadvantages of two or more courses of action before choosing the one with the most benefit or the one that suits your needs. It also helps you solve problems, handle uncertainty, verify claims and assess situations carefully to ensure the decision you make is in your best interest.

Government School

The organization which is funded by the government, hence the workload is handled by the government.

Private Schools

An organization run by a single person whose work is done by the vehicle itself.

Variables of Problem

The independent variable can alternately be called the explanatory, predicator, right-hand-side, or X variable. Similarly to dependent variables, these reflect the uses of independent variables, as they are intended to explain or predict changes in the dependent variables. Likewise, independent variables are often referred to as "X" in basic algebraic equations and plotted using the x-axis. In research, the experimenters will generally control independent variables as much as possible, so that they can understand their true relationship with the dependent variables.

Although "dependent variable" is the most commonly used term, they may also be referred to as response variables, outcome variable, or left-hand-side variable. These alternate names help to further

illustrate their purpose: a dependent variable shows a response to changes in other variables, displaying the outcome.

Delimitaion of the Study

- 1. It is primary a comparative study.
- 2. The study is conduct students of different medium schools.
- 3. The sample was drawn only from five English medium schools and five Hindi medium schools in Raipur.
- 4. The study was limited to the Reasoning ability of the student.
- 5. The study was conducted on both Government and Private school students.

Selection of Research Method

The method adopted for this study is descriptive and statistical in nature. The investigator used a Survey Method for data collection. The secondary school students of class 11th of different Government and Private as well as Hindi and English medium secondary school students of Raipur city comprise the population of the study. A stratified random sampling design will be applied to the target population. The study will be conducted on 200 male and female students from different schools of Raipur. The total sample will be equality distributed to include Government and Private school students in this study.

Population

Population should be well defined. The present study conceptualization, a comparative study of reasoning ability among 11th grade student's of schools. The whole group of units from which sample is to be selected technically termed as population. The investigator has chosen the area in Raipur district of Chhattisgarh as the population for the study.

Sampling Method

Table : Sample of Type, Gender and Area of Schools

SCHOOL	GENDER	RURAL	URBAN		
GOVERNMENT	MALE	25	25		
	FEMALE	25	25		
PRIVATE	MALE	25	25		
	FEMALE	25	25		
TOTAL		100	100		
GRAND TOTAL		20	200		

Prepatration of Tools

Suitable tools are of great importance to for collecting the data. The tools used for present study is "reasoning ability test" by L. N. Dubey (Retd). College of Educational Psychology and Guidance in Jabalpur (M.P.) Publication: National Psychological Corporation (Agra). In the year 1971.

In the present study the investigator has adopted English Version "Reasoning ability test". The test consists 60 questions. It is a two point rating scale. For correct answer 1 mark is allotted and for every wrong answer 0 marks is allotted.

Statistical Analysis

MEAN:
$$M = \frac{\sum fx}{N}$$

Standard Deviation: Standard Deviation:
$$\sigma = \sqrt{\frac{\sum d^2}{N}}$$

Critical Ratio: C.R. =
$$\frac{M1-M2}{\sqrt{\frac{\sigma_1^2}{N1} + \frac{\sigma_2^2}{N2}}}$$

t- Test:
$$t = \frac{M1 - M2}{SE_D}$$

Verification of Hypothesis Hypothesis 01

There exists no significant difference in reasoning ability in relation to private school students.

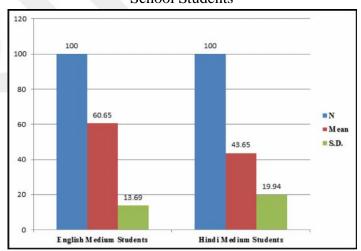
Table No. 01: Showing No significant differene in the Reasoning ability in relation to Private School Students

S. No	Category	N	Mean	S.D.	t. value
1.	English Medium Students	100	60.65	13.69	7.05
2.	Hindi Medium Students	100	43.65	19.94	

df = 198 p<0.01 significant

The above table indicates that mean, S.D. of students of English Medium were 60.65 and 13.69 and mean and S.D. of students of Hindi Medium were 43.65 and 19.94. The "t-value" obtained was 7.05. Thus, it is significant at 0.01 levels. Hence, our proposed hypothesis is rejected.

Graph No. 01: Showing No significant differene in the Reasoning ability in relation to Private School Students



Hypothesis 02

There exists no significant difference in reasoning ability in relation to Government school students.

Tabble No. 02: Showing No significant differene in the Reasoning ability in relation to Government School Students

S. No	Category	N	Mean	S.D.	t. value
1.	English Medium Students	50	62.34	13.69	4.78
2.	Hindi Medium Students	50	46.46	19.44	

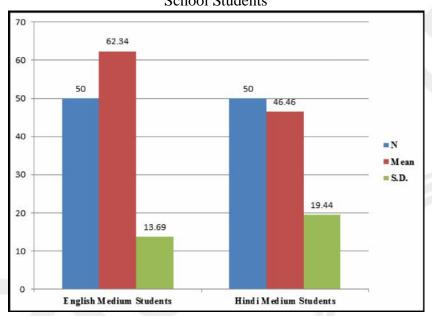
df = 98

p<0.01

significant

The above table indicate that mean, S.D. of students of English Medium were 62.34 and 13.28 and mean and S.D. of Students of Hindi Medium were 46.46 and 19.44 the "t-test" obtained was 4.78. Thus, it is significant at 0.01 level. Hence, our proposed hypothesis is rejected.

Graph No. 02: Showing No significant differene in the Reasoning ability in relation to Private School Students



Hypothesis 03

There exists no significant difference in reasoning ability in relation to Boys and Girls of school students.

Table No. 03: Showing No significant differene in the Reasoning ability in relation to Boys and Girls of School Students

S. No	Category	N	Mean	S.D.	t. value
1.	English Medium Students	50	58.96	13.86	5.03
2.	Hindi Medium Students	50	40.48	21.43	

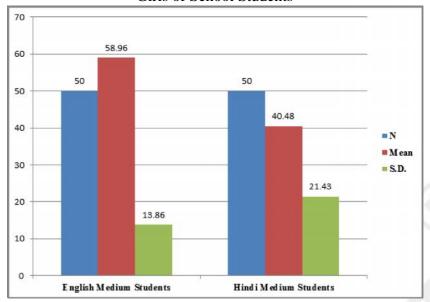
df = 98

p<0.01

significant

The above table indicates that mean, S.D. of students of English Medium were 58.96 and 13.86 and mean and S.D. of students of Hindi Medium were 40.48 and 21.43. The "t-value" obtained was 5.03. Thus, it is significant at 0.01 levels. Hence, our proposed hypothesis is rejected.

Graph No. 03: Showing No significant differene in the Reasoning ability in relation to Boys and Girls of School Students



Hypothesis 04

There exists no significant difference in reasoning ability in relation to private and government school students.

Table No. 04: Showing No significant differene in the Reasoning ability in relation to Private and Government of School Students

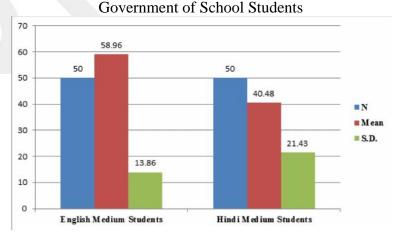
SHOWING NO SIGNIFICANT DIFFERENCE IN THE REASONING ABILITY IN RELATION TO PRIVATE & GOVERNMENT OF SCHOOL STUDENTS

S. No	Category	N	Mean	S.D.	t. value
1.	English Medium Students	50	62.34	13.28	1.24
2.	Hindi Medium Students	50	58.96	13.86	=/

df = 98 p>0.01 insignificant

The above table indicate that mean, S.D. of students of English Medium were 62.34 and 13.28 and mean and S.D. of students of Hindi Medium were 58.96 and 13.86. The "t-value" obtained was 1.24. Thus, it is significant at 0.01 levels. Hence, our proposed hypothesis is accepted.

Graph No. 04: Showing No significant differene in the Reasoning ability in relation to Private and



July to September 2022 www.shodhsamagam.com

A Double-blind, Peer-reviewed, Quarterly, Multidiciplinary and Multilingual Research

Journal

Impact Factor SJIF (2022): 6.679

CONCLUSION

School has a strong impact on the personality of the students education is not confined to the four walls of classroom or to the limit of the school. In the light of the analysis and inter relation of the data the researcher has drawn appropriate conclusion from the result obtained.

- A) Private school boys are having low reasoning ability than girls.
- B) Government school boys are having low reasoning ability than girls.
- C) Private or Government school boys are having low reasoning ability than the Private or Government school girls.
- D) Government school students are having low reasoning ability than the Private school students.

Suggestions

The study will help the student to develop the awareness of Reasoning Ability. This study will improved motivation, cooperation and coordination among students, also provide a good environment which is helpful for them to increase students goal orientation towards studies. This study will be helpful for the teacher, parents and students and also develop interest and confidence among students.

- 1. The administration should make arrangements to conduct reasoning ability test within the schools and also inter school to develop reasoning ability in students.
- 2. The teacher should make children conscious of the problem to be solved. This would trained the students to reason.
- 3. More exercises in problem solving should be given by the teacher to develop the students reasoning ability.
- 4. The teacher should create conditions in order that more and more students may be increased to adopt inductive method to solve the problem.
- 5. The teacher should provide opportunity for evaluating the solution experiment leave by the students themselves.
- 6. The problem given to the student should acquaint to them and should be according to their interest.
- 7. Reasoning is not possible due to lack of attention and self dependence. The teacher should develop these qualities in children.
- 8. The teacher should help the students in developing self confidence to improve his reasoning ability by encouraging them in problem solving.
- 9. The teacher should encourage the students to discover new principle on the basis of past experiences.
- 10. The teacher should give opportunity to students for discovery experimentation and research for developing reasoning ability.
- 11. School has a strong impact on the personality of the students education is not confined to the four walls of classroom or to the limit of the school campus.
- 12. Reasoning is the most important aspect of cognition it plays a significant role in the complex phenomena involving once cognitive abilities to solve problems appear for comparative exam and perform various activities in works of life.
- 13. The secondary stage of a child is to have a comparative is spread so there should be better reasoning to cope up with this following measured like.

Recommendation for Further Study

- 1) A Study can be carried out taking the Govt. School Pvt. School and Tribal School.
- 2) Study can be carried out in rural and urban schools.
- 3) The study can be conducted in college level.
- 4) The study can be conducted taking the vast sample national level.
- 5) The study can be conducted taking the teacher, principal, students and guardian.

REFERENCES

- 1. Agrawal, J.C.(2004), Essentials of Educational Psychology, New Delhi: Vikas Publishing House.
- 2. Anastasi, A. & Urbina S. (2002), Psychological Testing(7th Edition), New Delhi: Pearson Education (Singapore) Pvt. Ltd., Indian Branch.
- 3. Asthana, Bipin and R. N. Agrawal (1982), measurement and evaluation and psychology and education, Vinod pustak mandir: Agra.
- 4. Borg W.R. & M.D. Gail (1983) "Educational Research An Introduciton" New York, Longman, Green And Co.Ltd.
- 5. Breckernridge Marian E. and Vineent E. Lee (1949) "Child Development, London, W.B. Saundrs Co.
- 6. Chauhan, S.S. (1983) Advanced Educational Psychology (5th Edition) Vikas Publishing House Pvt. Ltd. New Delhi.
- 7. Dosajh, N.L. (1982) Advanced Educational Psychology, Allied Publisher Private Limited: New Delhi.
- 8. Fredrik & Brown (1983) Principals of Educational and Psychological Testing" New York, Holt Reinehat and Winston, P-137.
- 9. Garrett, H.E. and R.S. Woodworth (1967), Statistics in Psychology and Education(4th Edition), Vakil, Feffer and Simons Private Ltd: Bombay.
- 10. Good C.V. (1996) Essentials of Educational Research, New York Appleton Century Craflts.
- 11. Gupta R (1976), "Test of Non-Verbal Reasoning", Ramesh Publishing House, Nai Sarkar, Delhi.
- 12. H.E. Garett (1981) Statistics in Psychology and Education Vakils Fetter and Simons Ltd., Bombay, P-265.
- 13. Jha Avdhesh (2011) Research Methodology, New Delhi, APH Publishing Corpporation.
