

A Study on Reasoning Ability of 9th Standard Tribal Students of Anuppur District of Madhya Pradesh

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Abstract

The purpose of present study is to measure the status of Reasoning Ability of 9th standard tribal students of Anuppur district of Madhya Pradesh and compare to their gender. Research design for the study was descriptive survey method. The 9th standard tribal student of Anuppur district of Madhya Pradesh constitute the population of the study. A sample of 164 tribal students were randomly selected from three government schools of Anuppur district. Out of the 164 students, 74 were male and 90 were female students. Data was collected by using Reasoning Ability Test by L. N. Dubey. The result indicates that most of the students have extremely low, low and below average level of reasoning ability and a few students have average and above average level of reasoning ability. No student has high or extremely high level of reasoning ability. Findings also reveals that the 9th standard tribal male and female students are not significantly different in their reasoning ability.

Keywords: Reasoning ability, Tribal students.

As the former UN secretary-general Kofi Annan has stated, “knowledge is power, information is liberating, education is the premise of progress in every society, in every family.” Education is very powerful ornament by which the world can be changed. Education is not filling instructions into the brain of learners, but giving them an ability of reasonable thinking to understand the reality and take logical decisions. When we get any information and make a comparison between what we already know and the given information, our reasoning ability works here to come up to a decision. These skills are used to take decisions among all probable options, to discriminate between positive and negative conditions, to

understand any problem and to solve it. Much of our reasoning skills are inborn but these skills can be taught and enhanced. When a person is presented in a tough condition, his reasoning skills work subconsciously and within few seconds he reaches to the conclusion. All the innovator individuals of every area have got these skills at the maximum level. According to Kulshreshtha (1997), “all inventions, discoveries, art, literature and advances in culture and civilization are based on thinking, reasoning and problem-solving capacity of human beings.” According to Angell (1964), reasoning means, “the kind of the mental activity in which an individual is trying to arrive at a conclusion on the basis of reasons.” In reasoning a person tries to take certain logical conclusions on the basis of his acquired experiences with the help of logical thinking. It is making new decisions and judgements on the basis of previous acquired knowledge and decisions. Garrett (1968) has defined, “Reasoning is step-wise thinking with a purpose or goal in mind”. This skill has an important role in environmental adjustment of a person. Behaviour and personality of a person is very much influenced by proper development of his reasoning ability and it controls his intellectual actions. In daily life we use our reasoning skill in many ways. The great American philosopher John Dewey (1933) has formalized reasoning as five step process-“1- awareness of a problem (and motive to solve it), 2- collection of facts needed to solve it, 3- formulation of hypothesis or possible solutions, 4-evaluation of these hypotheses against the facts collected, 5-verification or actually trying out a solution which seems valid.”

India has a large variety of native citizens. The scheduled Tribes are indigenous and one of the most economically impoverished and relegated people of India. The Imperial Gazetteer of India, 1911 defines tribe as a “collection of families bearing a common name, speaking a common dialect, occupying or professing to occupy a common territory and is not usually endogamous though originally it might have been so” (Nithya 2014). Tribal families are linked socially, economically, religiously, culturally and traditionally. They have some certain potentials and characteristics which give them a special social, cultural and political identity. They have common origin, region, culture and way of life. They are known by many names as Adivasis, Janjatiya, Anusuchit Janjatiya, Moolvasi etc. A tribe is a traditional or inherited division of old culture. India has more than 10.2 crores of tribal population which is 8.6 per-cent of total population (census of India, 2011) and it is the largest tribal population of any country. Around 645 different tribes are living in India. A major population of tribes like Gonds, Baigas, Kol, Bhils, Murias, Bharia, Kharia, Birhors, Katkari, Khond, live in Madhya Pradesh. Tribal families live in their traditional society. They are very close within their

society and self-reliant social units. Hence, they possess some unique comparative identity, they have been isolated from the main stream of society and they do not want to change their identity, culture, social relationship and social behaviour patterns which are very different from the modern sectors of society. Education is considered the most influential instrument for development and it ensures the equality of opportunity. Education is not only a mean of economical development of tribal people but also an important input for the inner strength of tribal students which can help them to face new challenges of life. Education as a process aims to improve the living conditions and it can develop the potential of tribal students for future life. In this context, the objective of this paper is to analyse the reasoning ability of tribal students of Anuppur district of Madhya Pradesh.

Review of Related Literature:

Sarsani M R, (2007) conducted a study on the reasoning abilities of 9th standard Students with respect to their gender and the type of the institution. Findings show that boys are better than girls in reasoning ability test.

Rani K V (2018) conducted a study with the aim to explore the relationship between reasoning ability and academic achievement of secondary school students on the basis of their gender, age and type of school in Trivandrum district. The result revealed that academic achievement of secondary school students is highly correlated with their reasoning ability and male students are better in reasoning ability and academic achievement than that of female students.

Novianawati N & Nahadi N (2019) conducted a study on reasoning ability of secondary level students and the findings revealed that there are few students who have formal reasoning ability and there are many students who did not perform good in probabilistic and correlational reasoning.

Need and Significance of the study:

Reasoning ability is very important for the academic achievement of students (Rani K V, 2018). 9th standard students belong to early adolescent period. According to Stanley hall, “adolescents is a period of strain and storm.” This is the period of concept formation. Students make their perception towards world, society, life and all things. These adolescents are very special because of their mental, physical, emotional and social development and they require inordinate care. The development of reasoning ability at this age is very significant for logical thinking, for taking decisions, problem solving and discriminating between

positive and negative situations. Adolescents need to learn how to adjust with the change of life. Reasoning ability empower them to face the challenges of life with bravery and confidence. Proper development of reasoning skills enables the students to deal with the adversity and traumatic conditions of life effectively. It influences the personality and the behaviour of students. On the other hand, at present, selection process for all courses and job is through competitive exams and entrance tests. Reasoning ability test is an integral part of those tests and exams. Tribal students mostly live in remote areas of country. For pursuing higher education and vocational education, they need to go out from their places to different institutions and universities. They have to face the competitive tests and exams there. In such conditions proficiency in reasoning skills can make sure of the selection of students. In this way it is essential to study about the reasoning ability of class 9th standard tribal students.

Objectives of the study:

- To find out the level of reasoning ability of class 9th standard tribal students of Anuppur district of Madhya Pradesh.
- To find the difference in reasoning ability of class 9th standard tribal students of Anuppur district of Madhya Pradesh on gender basis.

Hypotheses:

- The reasoning ability among 9th standard tribal students is average.
- There is no significant difference in the mean scores of reasoning ability of male and female tribal students of 9th standard of Anuppur district of Madhya Pradesh.

Research Methodology:

The descriptive survey method was used in this study. The population of the study comprised of class 9th standard tribal students studying in government schools of Anuppur district of Madhya Pradesh, India.

Sample and sampling method:

The investigator used Random Sampling method to collect data. The sample of the study comprised of 164 9th standard tribal students, in which there are 74 male and 90 female students.

S. N.	Name of school	Gender		Total no of Students
		Male	Female	
1.	Govt Higher Secondary School Pondki	23	24	47
2.	Govt Higher Secondary School Bhejari	24	30	54
3.	Govt Excellence H. S. School Lakhaura	27	36	63
	Total	74	90	164

Table 1: Sample Size

Tools and statistics used:

In the present study the data was collected by using Reasoning Ability Test by L. N. Dubey. In the scale, level of reasoning ability has been grouped into seven levels viz- Extremely High, High, Above Average, Average/Moderate, Below Average, Low, Extremely Low. Statistical techniques used here for data analysis is t-test.

Data analysis and Results:

Objective-(i): *To find out the level of reasoning ability of class 9th standard tribal students of Anuppur district of Madhya Pradesh.*

To find out the level of reasoning ability of class 9th standard tribal students, the responses from the total number of 164 were analysed. For this study, SPSS (Statistically package for social science) was used for statistical analysis. The results are shown in the form of tables.

S.N.	Range of z-Score	Grade	Level of Reasoning Ability	No. of Student	Percentage of Student
1.	+2.01 and above	A	Extremely High	0	0%
2	+1.26 to +2.00	B	High	0	0%
3	+0.51 to +1.25	C	Above Average	8	4.87%
4	-0.50 to +0.50	D	Average/Moderate	12	7.31%
5	-0.51 to -1.25	E	Below Average	24	14.63%
6	-1.26 to -2.00	F	Low	41	25%
7	-2.01 and below	G	Extremely Low	79	48.18%
			total	164	100%

Table 2: Showing the level of reasoning ability of 9th standard tribal students.

As indicated in table 1 out of 164 students, 79 students have Extremely Low level of reasoning ability, 41 students have Low level of reasoning ability, 24 students have Below Average level of reasoning ability, 12 students have Average or Moderate level of reasoning ability and 8 students have Above Average level of reasoning ability. There is no any student who has High and Extremely High level of reasoning ability.

The result indicates that most of the students have extremely low, low and below average level of reasoning ability and a few students have average and above average level of reasoning ability. No student has high or extremely high level of reasoning ability. Therefore, it is concluded that tribal students of 9th standard are not good in reasoning ability and they need to be trained in reasoning ability.

Table 1 indicates that 48.18% of 9th standard tribal students are having Extremely Low level of reasoning ability, 25% of students are having Low level of reasoning ability, 14.63% of students are having Below Average level of reasoning ability, 7.31% are having Average or Moderate level of Reasoning Ability and 4.87% of students are having Above Average level. No one is having High level or Extremely High level of reasoning ability out of 164 students selected for the study. It has been graphically shown in figure 1

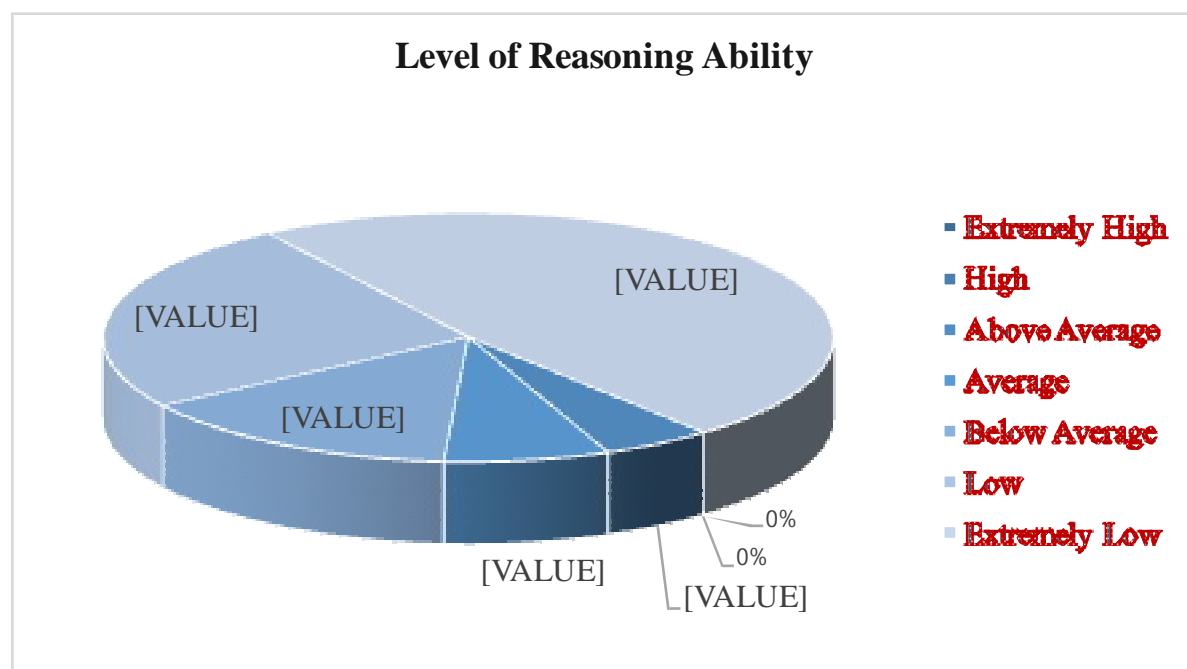


Figure 1. Level of Reasoning Ability of 9th standard Tribal Students in Percentage (%)

Objective-(ii): To find the difference in reasoning ability of class 9th standard students of Anuppur district of Madhya Pradesh on gender basis.

Gender	N	Mean	SD	t-value df=162	p-value	Result
Male	74	32.81	15.867	.921	.359	Not Significant at .05 level
female	90	35.27	17.870			

1.98 is table value at 0.05 level.

Table 3 Comparison of Reasoning Ability of 9th standard Tribal Male and Female Students

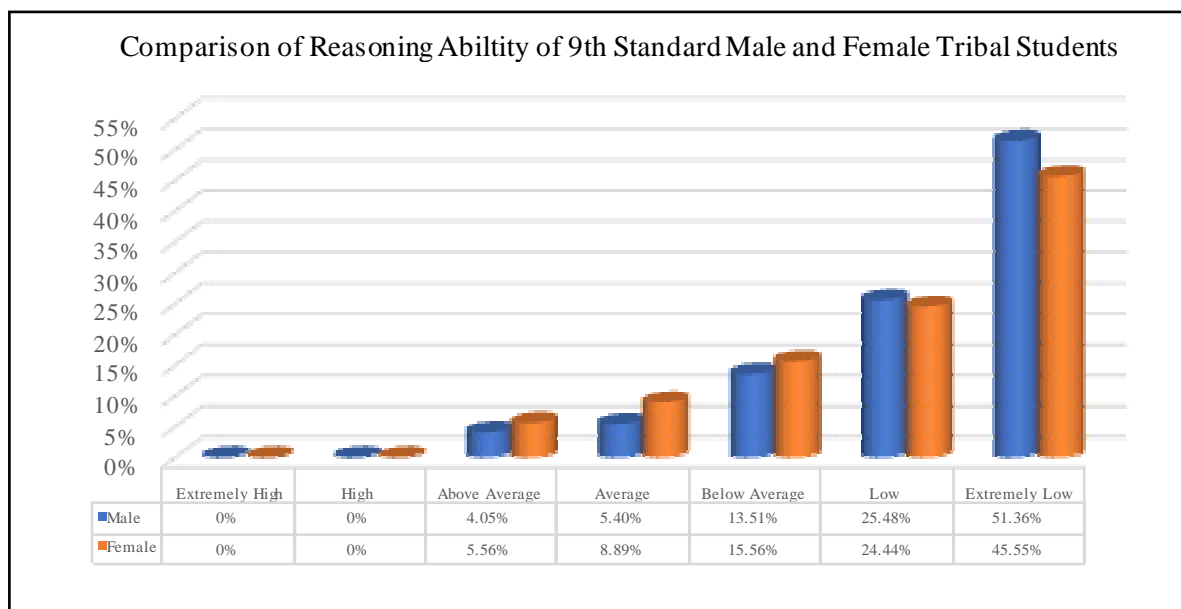


Figure 2

Table 2 shows that 32.81 is mean score of reasoning ability of 9th standard male tribal students and 35.27 is of 9th standard female tribal students. S D of reasoning ability of 9th standard male and female tribal student are 15.867 and 17.870 respectively. At 0.05 level of significance, the measured t-value is .921 which is less than the given table value 1.98. Therefore, at 0.05 level of significance, result is not significant. This shows that the 9th standard tribal male and female students are not significantly different in their reasoning ability.

Discussion:

The findings of the study reveal that most of the students have extremely low, low and below average level of reasoning ability and a few students have average and above average level of reasoning ability. No student has high or extremely level of reasoning ability which is necessary for their performance. Therefore, it is concluded that tribal students of 9th standard are not good in reasoning ability and they need to be trained in reasoning ability. Furthermore, this study also revealed that gender does not have any effect on reasoning ability. This result is in line with Kanimozhi P et al (2017), who revealed that there is no difference in reasoning ability on the terms of gender. Both male and female students are even in reasoning ability. The findings are in the same direction of a study on reasoning ability of secondary school students in relation to their intelligence (Anwar E, 2015) which shows that there is no significance difference among male and female students in reasoning ability.

Conclusion:

Present study which aims on the study of reasoning ability of 9th standard tribal students can be concluded that tribal students of secondary school are not good in reasoning ability and they need to be taught how to improve their reasoning skills. Hence, they have been marginalized and improvised since a long time, even now tribal students are not in main stream of education system. Students should be taught in such a way that they would be able to think logically, differentiate in positive and negative situations, take decisions accordingly and expand their reasoning ability. India has been making several policies and established many educational institutions for tribal people in far remote areas. School teachers should build-up a good reasoning skill in students and motivate them for the proper use of different reasoning skills. Activities and chapters based on reasoning skills should be included in syllabus. Teacher should begin by enabling students progress of logical reasoning ability. Student should also make an effort to use these reasoning skills for improving their learning so that they can achieve high academic performance and cope up with new challenges of life.

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