



KNOWLEDGE ABOUT GREEN CHEMISTRY OF TRIBAL AND NON-TRIBAL STUDENTS AT HIGHER SECONDARY LEVEL

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ABSTRACT

Science improves human life at every level, from individual comfort to global issues. The proper knowledge of science helps to improve the surroundings. Also these proper knowledge gives some behavioral changes to the human beings. These are the open mindedness, truthfulness, honesty, to know the cause behind any matter, critical thinking, use some innovative thinking apart from traditional method which is collectively known as awareness in science. The knowledge of material used i.e. the material which is toxic or non toxic to the human or to the environment at different situation is affect the awareness. This is called the knowledge about green chemistry of that particular students.



The Present study shows the knowledge of green chemistry of Tribal and Non –tribal students at higher secondary level. The main objective of this study is to find out the relationship between tribal and non tribal students about knowledge of green chemistry at PaschimMedinipur districts. Descriptive Research Methodology with survey techniques has been used in the present study. The present study is quantitative in nature. The researcher has taken 240 samples for this study from PaschimMedinipur districts of West Bengal. A self made questionnaire, standardized by the different expert and supervisor was used to collect data. Collected data was analyzed with suitable statistical techniques like t- test, Descriptive statistics etc through MS-Excel 2007. There are some difference of knowledge about green chemistry with respect to gender, location of the schools and also to the combined of gender-location of the schools.

KEY WORD: knowledge about green chemistry, tribal students, non- tribal students, rural school, urban school, higher secondary level students.

INTRODUCTION

India has a rich glorious heritage, but, a sizeable part of Indian population is yet to be get benefits out of it. The schedule castes and schedule tribes are two groupings of historically disadvantage people. This people in India usually resides in hill area, forest, near the seas, and in Islands and deprived from the society. Their life style is quite different from the socially civilized persons i.e. non-tribal people. It is not their society are static but the pace of social change in tribal society is very low. Though our national leaders and constitutional makers are committed to uplift the tribal people by implementing different policies but a desired level of development has not been achieved yet. According to Mandal commission (1979) another new category are identify who are the also socially or educationally backward and they are called Other Backward Class (OBC).

According to Education Commission (1964-66) The Progress, welfare and prosperity of a nation depend on a sustained growth in the quality of education and research in the science and technology.

Science is an Intellectual activity carried on by human that is designed to discover Information about the natural world in which humans live and to discover the ways, in which this information can be organized into meaning full pattern. According to the Bloom Taxonomy there is three types of domain for all round development of the students as well as human beings. These are cognitive domain, affective domain and psychomotor domain. These three domain are effectively developed by the knowledge of science. As reported in Discover Magazine (2010) “The scientific discoveries in the last thirty years have touched nearly every aspect of our daily lives”, science teaches how to think critically about not just scientific subjects, but all subjects.

Awareness is the ability to directly know and perceive to feel or to be cognizant of events. It is the state of being consciousness of something, rational thinking of any problem, critical observation, deeply thinking etc. Students admitted into science stream. They know new theories, solve new problems and invented new laws/ theory from the knowledge of science. But their knowledge about green chemistry i.e, the material used by them either toxic or non toxic to the human as well as to the environment is yet to be questionable. That’s why researcher introduced the problem to know the knowledge of green chemistry of the students and also to know the difference of knowledge of green chemistry of tribal and non-tribal students in reference to impact of location ,gender ,category on their knowledge about green chemistry, so the problem entitled as, “ **knowledge of green chemistry of Tribal and Non-Tribal students at higher secondary level**”. knowledge about green chemistry means to know the basic knowledge to overcome the hazards. the minimum knowledge to use of daily substituent which is less hazards and less toxic to human , society and environment also.

SIGNIFICANCE OF THE STUDY

Science helps to continue better life of students, pupils. Every day and every moment we use directly or indirectly the science as well as scientific knowledge .Students are admitted to science stream at higher secondary level to satisfied their curiosity and some deep interest towards science . They knew some theories about science, solve new problems and invented some new theories, tools, equipments which helps to lead better life in human being. Long time ago only general students or economically better students are admitted to science stream but now a days the picture has changed . Now the students belonging from very needy family also the students of tribal Community are admitted to science stream. Not only that but the needy students or tribal students fulfilled their higher education with the help of different governmental policy.

Knowledge of using less hazards substituent in daily life is essential to maintain the better human life . so it is necessary to knew the knowledge about green chemistry of the tribal students as well as non-tribal students which helps to science awareness.

That’s why present researcher introduced the problem to know the **knowledge about green chemistry** both tribal and non-tribal students. So the researcher introduced the problem entitled as “**knowledge about green chemistryOf Tribal and Non-Tribal Students At Higher Secondary Level**”.

OBJECTIVE OF THE STUDY

1. To know the awareness about transformation of hazards substituent into eco- friendly components i.e. knowledge about green chemistry between tribal and non-tribal students .
2. To Identify the knowledge about green chemistry of rural and urban students.
3. To identify the knowledge about green chemistry of boys and girls students.
4. To identify the knowledge about green chemistry of rural boy , urban boys and rural girls ,urban girls students respectively.
5. To study the impacts of science awareness in modernizing the tribal’s social and

HYPOTHESES

H₀1: There is no significant difference between tribal and non-tribal students towards knowledge about green chemistry.

H₀2: There is no significant difference between rural and urban students of knowledge about green chemistry.

H₀3: There is no significant difference between rural and urban students of knowledge about green chemistry.

H₀4: There is no significant difference between rural boys and urban boys students of knowledge about green chemistry.

H₀5: There is no significant difference between rural girls and urban girls students of knowledge about green chemistry.

H₀6: There is no significant difference between rural boys and rural girls students of knowledge about green chemistry.

H₀7: There is no significant difference between urban boys and urban girls students of knowledge about green chemistry.

OPERATIONAL DEFINITION OF THE IMPORTANT TERMS

Knowledge About Green Chemistry: To understand the knowledge about how hazard components of surroundings have been converted into eco-friendly components i.e, the Knowledge about green chemistry .The knowledge about green chemistry means the use of less toxic and decomposable materials which is less harmful to the environment , So knowledge of green chemistry helps to create a pollution free environment .

Tribal students: By the term “tribal students” here researcher wants to explain that the students who are belong from reserve category. The students belong from schedule tribes, schedule caste and Other Backward Category. Schedule tribes are the original inhabitant of India and also schedule cast. Now a days one new category was consider by the government this is Other Backward Classes(OBC).The people of this community are socially and economically backward. The children of this community have also some lack in different area. Researcher consider the above category students as a tribal students and used them to know the science awareness.

Non -Tribal students: By the term “non-tribal students” here researcher wants to explain that the students who are belong from general category. The remaining part from the tribal students are the non-tribal students. Researcher take non-tribal students to know their science awareness towards different dimension. Then compare the science awareness between tribal and non-tribal students.

Higher secondary level: Actually secondary students are two types ;

- Lower secondary students: The students who are studying in class ix and x are lower secondary students.
- Higher secondary students: The students who are studying in class xi and xii are higher secondary students.

Here by the term higher secondary students researcher wants to explain that the students of class xi &xii .

DELIMITATION OF THE STUDY

Every study has its limitation .The present study had some limitations which were as follows-

1. This study was limited to the students of West Bengal only.
2. The selection of schools for this study was not selected with strict randomization.
3. The sample of the study was selected from the Govt./Govt. aided Bengali medium higher secondary school under W.B.C.H.S.E.
4. The study was involved to the pure science students of higher secondary level only .

5. The study was limited to the student of PaschimMedinipur districts only.
6. The study was limited to the six block of PaschimMedinipurdistricts only .
7. The number of students might be increased by taking more schools under the study.
8. Purposive sampling techniques was applied for data collection.

BACK GROUND OF THE STUDY

Some previous studied of Gopalkrishna reported that compare the high and low intelligence urban and rural students on environmental pollution scale. In his study he has find out that there exists significantly positive difference between the variables of high intelligent & low intelligent urban students. A study like Crettaz (2004) studied that the attitudes of students towards science .initial results of this study showed that men have positive attitude towards science and greater level of scientific knowledge than women .

Work of Ghosh (2007)provides in depth literature on the tribal education in Jharkhand and West Bengal. He observes that the female enrolment ratio of the tribal is much lower among these tribal than that of their males .

Work of Abraham&Arjun(2005)reported that a study to assess Environmental interest of secondary school students . He did not found a high level of Environmental interest a differential effect of gender and local was observed. The boys and urban subjects having more interest in environmental as compared to their rural counterparts,as high positive and significant correlation was found to exist between environmental interest and environmental attitude in all the studied sample Work of Mishra studied that there did not exist significant difference in attitude towards science of secondary school students in respect to combined impact of gender and socio economic status .

Work of Rani(2008) studied that there was a significant difference in the science attitude scores of tribal and non tribal students at 0.05 level for the science attitude scale as well as in all the sub scales .

DESIGN OF THE STUDY

A research design is a detailed outline of how an investigation process will take place .A research design will typically include how data is to be collected , what instruments will be employed , how the instruments will be used and the intended means for analyzing the collected data. Research design thus may be defined as the sequence of these steps taken to ensure relevant data collection and analysis the hypotheses formulated with respect to the research problems . Here the researcher was used descriptive research design for the present study .This method was concerned with surveying, describing ,and investigating the existing phenomenon or issues and trying to find out the relation . The researcher was used survey type descriptive to know the science awareness of the students at higher secondary level on location , gender and category wise . The design of the study is as follows-

Population:The study was conducted on rural and urban area of PaschimMedinipur districts in West Bengal . For this research work the population was higher secondary students of Bengali medium school Govt./ Govt. Aided under west Bengal council of higher secondary education

Sample : Random sampling techniques was adopted for the study. 240 students was taken for the study. There was 120 boys and 120 girls in those 240 students. Also there was 120 tribal students and 120 non-tribal students in those 240 students . Again out of this 240 students 120 was rural students and 120 was urban students.

Variables :**1. Major Variable :** Knowledge about green chemistry

2. Categorical variable :

a. Gender :i. Male ii. Female

b. Location of the School : i. Rural ii. Urban

c. Caste : i. Non-Tribal Students ii. Tribal Students

Tools of the study:The researcher used self made questionnaire to measure the Knowledge about Green Chemistry .

Description of questionnaire :This tool was constructed by present researcher with the help by other expert .This was consisted of 60 items , from which 50 items were selected .The validity of items judged by other experts. The category of responses were ‘all time’, frequently , “disagree” and “3” , “2” , “1” were the respective scores awarded for the responses. Some items were negative in nature and the scoring was done in reverse order i.e, “1” , “2” , “3” .

Table-A :Responses Scores for items :

Positive Item: All time -3 , Frequently-2 , Disagree -1 .

Negative Item : All time -1 , Frequently-2 , Disagree -3 .

Data Collection Procedure : The study was done by the use of self made questionnaire having three option of every items. The data was collected from four urban and four rural schools.Some time purposive sampling techniques was introduced to collect the data .The school was selected randomly from the different block of PaschimMedinipur district . the students belong from higher secondary level of govt. aided / govt. schools. The study was conducted only to the pure science students at higher secondary level. The study was conducted to know the knowledge about green chemistry of the students according to location wise, gender wise , caste wise. Again this study was done to know the interrelationship within the categorical variable i,e. location- gender wise .

RESULTS AND DISCUSSIONS

Data was analyzed by the researcher through t-test , standard deviation (S.D.) , skewnes,Kurtosis and descriptive analysis using MS Excel 2007 from the t-test the value of p is either significant or not significant at 0.05 level was justified . and also when the null hypotheses was rejected then which group is favourable can be justified by the compare of mean value of two groups.

H₀1: There is no significance different between non- tribal and tribal students towards knowledge about green chemistry.

Table : 1Descriptive statistics and inferential statistics(t-test) of Tribal & Non-Tribal students.

Descriptive statistics of KAGC of Non-tribal student		Descriptive statistics of KAGC of Tribal students		t-test for equality of mean				
STATISTICS	VALUE	STATISTIC	VALUE	Calculated t-value	Critical t-value	df	Sign. P value(2- tailed	Remarks
Mean	19.375	Mean	18.36667	3.039087	1.969981	238	0.002638	S at 0.05
Standard Error	0.249387	Standard Error	0.21883743					
Standard Deviation	2.731892	Standard Deviation	2.39724398					
Kurtosis	-0.93826	Kurtosis	-0.6664997					
Skewness	0.165784	Skewness	0.27159526					

Statistics calculated for sample is represented in the above table - 1. It has seen from the above Part - A. that the raw scores indicate that the distribution is positively skewed(0.165784). AKurtosis of -0.93826 indicates that the distribution is Playtikurtic(Ku = -0.93826 <normal distribution= 0.263) because the value is less than the value of normal distribution (0.263). And from the above part-B It has seen that the mean distribution is positively skewed(0.27159526) . A Kurtosis of -0.6664997 indicates that the distribution is Playtikurtic(Ku =-0.6664997<normal distribution =0.263) because the value is less than the value of normal distribution (0.263)

Interpretation :The above test shows that the calculated $t_{(238)}$ value is 3.039087 and p value is 0.002638 (p <0.05). Hence, it is significant and hence H_{01} is rejected. Therefore, it can be said that, there is significant difference between non-tribal and tribal students towards knowledge about green chemistry .

H_{02} : There is no significance different between rural and urban students of knowledge about green chemistry .

Table : 2Descriptive statistics and inferential statistics(t-test) of Rural & Urban students.

A.Descriptive statistics of KAGCof Rural students		B.Descriptive statistics of KAGC of Urban students		C.t- test for Equality of Mean				
				Calculated t value	Critical t value	df	Sign. P value(2-tailed)	Remarks
Mean	16.975	Mean	20.7666667	-16.3244	1.969981	238	0.0000106	S at 0.05
Standard Error	0.14944458	Standard Error	0.17780695					
Standard Deviation	1.63708339	Standard Deviation	1.94777759					
Kurtosis	-0.0397471	Kurtosis	-0.783337					
Skewness	0.51990384	Skewness	0.14057015					

From the above table 3 from portion –A It has seen that the distribution is positively skewed (0.51990384) . A Kurtosis of -0.0397471 indicates that the distribution is Playtikurtic (Ku = -0.0397471<normal distribution = 0.263)because the value is less than the value of normal distribution (0.263).And from the above table 3 from portion –B It has seen that the raw scores indicates the distribution is positively skewed(0.14057015). A Kurtosis of -0.783337 indicates that the distribution is Playtikurtic(Ku = -0.783337 <normal distribution = 0.263) because the value is less than the value of normal distribution (0.263)

Interpretation :The above test shows that the calculated $t_{(238)}$ value is -16.3244 and p value is 0.0000106 (p <0.05). Hence , it is significant and hence H_{02} is rejected. Therefore, it can be said that, there is significant difference between rural and urban students towards knowledge about green chemistry .

H_{03} :There is no significant different between boys and girls students of knowledge about green chemistry .

Table :3Descriptive statistics and inferential statistics(t-test) of Boys & Girls students.

A. Descriptive statistics of KAGC of boys students		B. Descriptive statistics of KAGC of girls students		C. t-test for Equality of Mean				
STATISTICS	VALUE	STATISTIC	VALUE	Calculated t value	Critical t value	df	Sign. P value(2-tailed)	Remarks
Mean	19.04167	Mean	18.7	1.012529	1.969981	238	0.312313	NS at 0.05
Standard Error	0.262341	Standard Error	0.212231					
Standard Deviation	2.873805	Standard Deviation	2.324875					
Kurtosis	-1.00725	Kurtosis	-0.64166					
Skewness	0.307546	Skewness	0.07761					

It has seen from the above table 5 part –A that the distribution is positively skewed(0.307546) . A Kurtosis of -1.00725 indicates that the distribution is Playtikurtic (Ku = -1.00725 <normal distribution = 0.263) because the value is less than the value of normal distribution (0.263).And from the above table from part –B It is seen that the raw scores indicate that the distribution is positively skewed (0.07761) . A Kurtosis of -0.64166 indicates that the distribution is Playtikurtic (Ku = -0.64166 <normal distribution = 0.263) because the value is less than the value of normal distribution (0.263)

Interpretation:The above test shows that the calculated $t_{(238)}$ value is 1.012529 and p value is 0.312313 ($p > 0.05$). Hence, it is not significant and hence H_0 is not rejected. Therefore, it can be said that, there is no significant difference between boys and girls students towards knowledge about green chemistry .

H₀4: There is no significance different between rural boys and urban boys students of knowledge about green chemistry.

Table: 4Descriptive statistics and inferential statistics(t-test) of Rural Boys &Urban Boys students.

A. Descriptive statistics of KAGC of Rural Boys student		B. Descriptive statistics of KAGC of Urban Boys students		C. t- test for Equality of Mean				
STATISTICS	VALUE	STATISTICS	VALUE	Calculated t value	Critical t value	df	Sign. P value(2-tailed	Remarks
Mean	16.68333	Mean	21.4	-15.8022	1.980272	118	0.0000666	S at 0.05
Standard Error	0.162069	Standard Error	0.250649					
Standard Deviation	1.255384	Standard Deviation	1.941518					
Kurtosis	-0.27373	Kurtosis	-0.77054					
Skewness	-0.05991	Skewness	-0.1311					

Statistics calculated for sample is represented in the above table 7 . It has seen from the above table 7 part-A that the distribution is negatively skewed(-0.05991) . A Kurtosis of - 0.27373 indicates that the distribution is Playtikurtic(Ku = - 0.27373 <normal distribution =0.263) because the value is less than the value of normal distribution (0.263).And from the table 7of part-Bthe raw scores indicate that the distribution is negatively skewed(-0.1311). A Kurtosis of -0.77054 indicates that the distribution is

Playtikurtic ($Ku = -0.77054 < \text{normal distribution} = 0.263$) because the value is less than the value of normal distribution (0.263).

Interpretation : The above test shows that the calculated $t_{(118)}$ value is -15.8022 and p value is 0.0000666 ($p < 0.05$). Hence, it is significant and hence H_04 is rejected. Therefore, it can be said that, there is significant difference between rural boys and urban boys students towards knowledge about green chemistry.

H_05 : There is no significant difference between rural girls and urban girls students of knowledge about green chemistry .

Table :5 Descriptive statistics and inferential statistics(t-test) of Rural Girls & Urban Girls students.

A. Descriptive statistics of KAGC of Rural Girls students		B. Descriptive statistics of KAGC of Urban Girls students		C.t-test for Equality of Mean				
STATISTICS	VALUE	STATISTICS	VALUE	Calculate d t value	Critical t value	df	Sign. P value (2-tailed	Remarks
Mean	17.2666667	Mean	20.1333333	-8.56379	1.980272	118	0.0000481	S at 0.05
Standard Error	0.24686356	Standard Error	0.22607767					
Standard Deviation	1.91219695	Standard Deviation	1.75119007					
Kurtosis	-0.7360475	Kurtosis						
Skewness	0.4169671	Skewness	0.31827806					

It has seen from the above table:5 from part-A that the distribution is positively skewed (0.4169671). A Kurtosis of -0.7360475 indicates that the distribution is Playtikurtic ($Ku = -0.7360475 < \text{normal distribution} = 0.263$) because the value is less than the value of normal distribution (0.263)

And from the table:5 of part -B indicate that the distribution is positively skewed (0.31827806). A Kurtosis of -0.5197312 indicates that the distribution is Playtikurtic ($Ku = -0.5197312 < \text{normal distribution} = 0.263$) because the value is less than the value of normal distribution (0.263).

Interpretation : The above test shows that the calculated $t_{(118)}$ value is -8.56379 and p value is 0.0000481 ($p < 0.05$). Hence, it is significant and hence H_05 is rejected . Therefore, it can be said that, there is significant difference between rural girls and urban girls students towards knowledge about green chemistry .

H_06 : There is no significance different between rural boys and rural girls students of knowledge about green chemistry .

Table:6 Descriptive statistics and inferential statistics(t-test) of Rural Boys &Rural Girls students.

A. Descriptive statistics of KAGC of Rural Boys students		B. Descriptive statistics of KAGC of Rural Girls students		C.t-test for Equality of Mean				
STATISTICS	VALUE	STATISTIC	VALUE	Calculated t value	Critical t value	df	Sign. P value(2-tailed)	Remarks
Mean	16.6833333	Mean	17.2666667	-1.97532	1.980272	118	0.050566	NS at 0.05
Standard Error	0.16206936	Standard Error	0.24686356					
Standard Deviation	1.25538389	Standard Deviation	1.91219695					
Kurtosis	-0.2737319	Kurtosis	-0.7360475					
Skewness	-0.0599134	Skewness	0.4169671					

From the above table: 6 part –A indicate that the distribution is Negatively skewed(-0.0599134). A Kurtosis of -0.2737319 indicates that the distribution is Playtikurtic (Ku =-0.2737319 <normal distribution = 0.263) because the value is less than the value of normal distribution (0.263)

And from the above table :6of part-B indicate that the distribution is positively skewed (0.4169671). A Kurtosis of -0.7360475 indicates that the distribution is Playtikurtic(Ku =-0.7360475 <normal distribution =0.263) because the value is less than the value of normal distribution (0.263)

Interpretation:The above test shows that the calculated $t_{(118)}$ value is -1.97532 and p value is 0.050566(p > 0.05). Hence, it is not significant and hence H_0 is not rejected. Therefore, it can be said that, there is no significant difference between rural boys and rural girls students towards knowledge about green chemistry .

H_0 7: There is no significant difference between urban boys and urban girls students of knowledge about green chemistry .

Table :7 Descriptive statistics and inferential statistics(t-test) of Urban Boys & Urban Girls students.

A.Descriptive statistics of KAGC of Urban Boys student		B. Descriptive statistics of KAGC ofUrban Girls students		C.t-test for Equality of Mean				
STATISTICS	VALUE	STATISTICS	VALUE	Calculated t value	Critical t value	df	Sign. P value(2-tailed)	Remarks
Mean	21.4	Mean	20.13333	3.752597	1.980272	118	0.000273	S at 0.05
Standard Error	0.250649	Standard Error	0.226078					
Standard Deviation	1.941518	Standard Deviation	1.75119					
Kurtosis	-0.77054	Kurtosis	-0.51973					
Skewness	-0.1311	Skewness	0.318278					

It has seen from the above table7 from part- A that the distribution is negatively skewed(-0.1311). A Kurtosis of -0.77054 indicates that the distribution is Playtikurtic (Ku = - 0.77054 <normal distribution=0.263)because the value is less than the value of normal distribution (0.263).

And from the above table-7 Of part –B indicates that the distribution is positively skewed (0.318278). A Kurtosis of -0.51973indicates that the distribution is Playtikurtic (Ku = -0.51973 <normal distribution = 0.263) because the value is less than the value of normal distribution (0.263).

Interpretation:The above test shows that the calculated $t_{(118)}$ value is 3.752597 and p value is 0.000273 (p < 0.05). Hence, it is significant and hence H_0 is rejected. Therefore, it can be said that, there is significant difference between urban boys and urban girls students towards knowledge about green chemistry

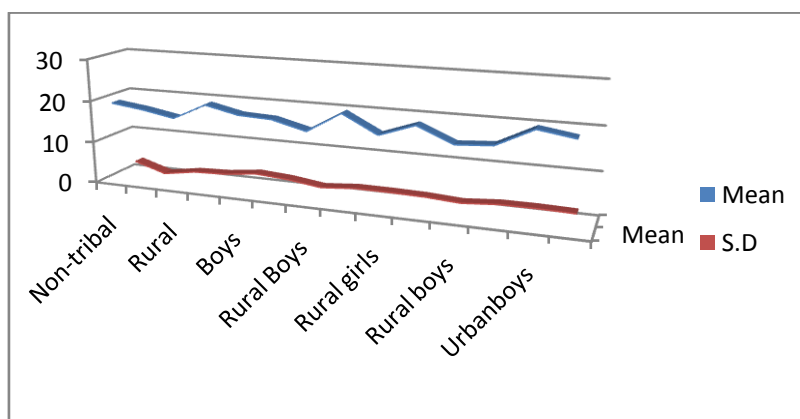


Fig: knowledge about green chemistry of different categorical students.

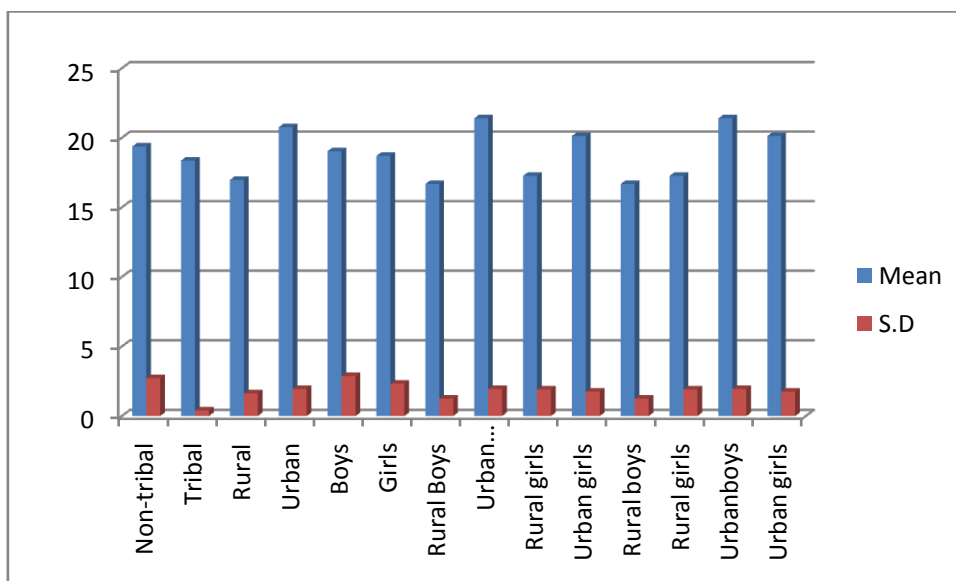


Fig: knowledge about green chemistry of different categorical students.

MAJOR FINDINGS

1. The tribal and non-tribal students in their basic knowledge about green chemistry differ significantly.
2. The mean value of the two groups indicates that non-tribal students are more favourable than tribal students of their knowledge about green chemistry.
3. The rural and urban students differ significantly of their knowledge about green chemistry.

4. The mean value of this two groups indicates that urban students are more favourable than rural students of their knowledge about green chemistry.
5. The boys and girls students not differ significantly of their knowledge about green chemistry.
6. The rural boys and urban boys differ significantly of their knowledge about green chemistry.
7. The mean of this two groups indicates that urban boys are favourable than rural boys of their knowledge about green chemistry.
8. The rural girls and urban girls students differ significantly of their knowledge about green chemistry.
9. The mean value indicates that urban girls are more favourable than rural girls of their knowledge about green chemistry.
10. The rural boys and rural girls not differ significantly of their knowledge about green chemistry.
11. The urban boys and urban girls of their knowledge about green chemistry differ significantly.
12. The mean value of this two groups indicates that urban boys are more favourable than urban girls of their basic knowledge about green chemistry.

CONCLUSION

Finally some conclusion drawn from the above study .knowledge about green chemistry of students of area of the schools, gender and caste are differ at higher secondary level. Among The tribal and non-tribal students in their basic knowledge about green chemistry differ significantly and non-tribal students are more favourable than tribal students. The boys and girls students not differ significantly of their knowledge about green chemistry. The tribal and non-tribal students in their basic knowledge about green chemistry differ significantly. Urban boys are more favourable than urban girls of their basic knowledge about green chemistry.

The tribal and non-tribal students differ in their knowledge about green chemistry. If the knowledge of green chemistry inculcate to the students it helps to live in a pollution free environment.

REFERENCES

- Ahuja, R92013) Research Method JaipurJawahar Nagar , Rawat Publication.
- Koul, L. (2013) Methodology of Educational Research (4th ed.) Noida ,Vikas Publishing House Pvt. Ltd.
- Kar,satyajit& De ,Rathindra . Chandra ; A comparative study on secondary students environmental awareness and achievement in life science , sikshachintan , vol -8 ,p 127-132 .
- Mishra ,Savita ; Book : Attitude towards science of secondary school students
- Mishra ,Savita ; Book : Attitude towards science of secondary school student p- 25,26.27,31
- Mishra, S.S , Mishra , s & samanta,t.k ; educational awareness among tribes residing in rural areas of paschimmedinipur. Sikshachintan ,vol 5 ,151-163
- Monica ,ese .alake ; Green Chemistry , senior school students awareness & practices in southern Nigeria.Raising awareness of the important of science &techonology to Australias students . p-1377.
- Mondal ,chandra . bhim& Mete , jayanta ; a comparative study of environmental awarewness among secondary school students in relation to gender and residential background . sikshachintanvol -4 p 17 -21 .
- Mishra, S.S , Mishra , s & samanta,T.K ; educational awareness among tribes residing in rural areas of paschimmedinipur. Sikshachintan ,vol 5 ,151-163 .
- Senapati , T & sahoo ,R.N. (2009) ; environmental education and pollution control .