

## **Environmental awareness among undergraduate students in rural area**

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**Abstract:** A small study was conducted to know about the attitude and awareness of college going undergraduate students towards the environment. The study was conducted at Govt. colleges of rural areas. Three colleges, Govt. college, Utai, Govt. college, Dondy Lohara and Govt. college, Dondy from Chattisgarh state were selected for the study. Govt. college, Utai is situated just in the vicinity of Durg city. Students studying in the college mostly belong to nearby small villages. Govt. college, Dondy Lohara and Govt. college, Dondy are situated in quite interior region much away from the city influence. Both the colleges belong to tribal area. Overall level of awareness was found to be average. Number of students with high level of awareness is found to be extremely low whereas number of students with low level of awareness is found to be fairly high.

**Key words:** Environmental awareness, Govt. College.

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### **I. Introduction**

Environment includes all relationships between human and its surroundings and also all that impact upon them and all that they impact. Environment is degrading at much faster rate than our imagination. Most of these degradations are caused by human activities. Damage to environment is both at global and local level. Decrease in ozone layer and increase in emission of green house gases are the example of the damage at global level and ground water pollution, soil erosion are some examples of regional impact of human activities on environment.

To protect, manage and minimize the damage to environment, environmental education is necessary. It develops the required skills and expertise to handle the associated challenges. Aim of the environmental study is to impart knowledge create awareness, inculcate attitude of concern and provide skill to handle the environmental challenges. Environmental education makes us able to assess environmental situation and the conditions leading to the environmental damage.

Awareness about the environment helps the individuals to understand the impact we cause on our earth. Awareness can help us finding ways to keep our surrounding clean and green. It develops ability to think about the proper management of our resources. It is the duty of current generation to leave the present environment as good as or better than today for future generation. Therefore it is necessary that all members of the society should contribute towards the protection and conservation of environment to their best. Attitude and awareness among the people are two most important factors for nature protection and caring for environment (Julie E. Schmidt 2007). College going students are the young and energetic citizens with varied ideas. Also environmental education is the part of curriculum in colleges of Chhattisgarh. Therefore a small study is conducted to know about the attitude and awareness of college going undergraduate students towards the environment. The study was conducted at Govt. colleges of rural areas. Three colleges, Govt. college, Utai, Govt. college, Dondy Lohara and Govt. college, Dondy were selected for the study. Govt. College, Utai is situated just in the vicinity of Durg city. Students studying in the college mostly belong to nearby small villages. Govt. college Dondy Lohara and Govt. college Doundy are situated in quite interior region much away from the city influence. Both the colleges belong to tribal area.

### **II. Methodology**

Random sampling was done. Sample included 117 students from arts and science stream. A questionnaire containing 25 questions was given to fill-up to each one of them. Questions were aimed to assess the attitude awareness and knowledge about Govt. rules and works, Sources & effects of pollution, reducing the garbage & pollution, Changes in behavior due to pollution, Concern of the students about our environment. Each question carried one mark. Awareness about Govt. rules and works carried 04 points, awareness about

Sources & effects of pollution were allotted 04 points, awareness about reducing the garbage & pollution were given 09 points, changes in behavior due to pollution carried 06 points and concern about our environment were given 02 points. Students were kept into three categories according to the points scored by them-High (75% and above score points), Average (score point between 50 and 75%) and Low (50% or below 50% score point). Regarding statistical analysis mean and Standard deviation was calculated and t test was performed.

### III. Results:

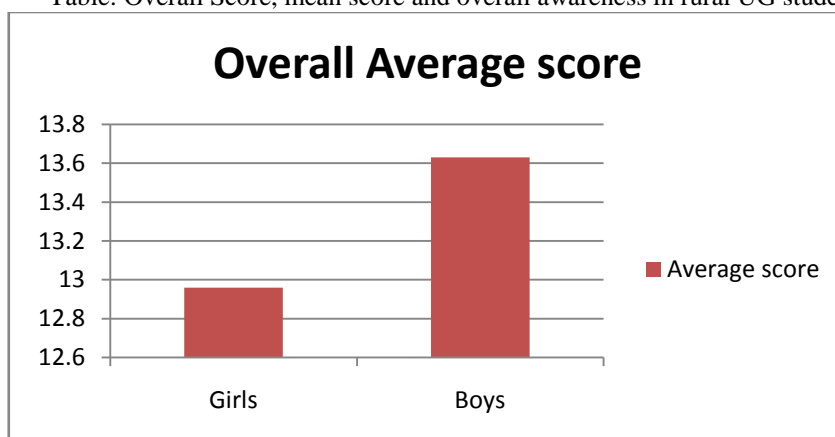
#### 3.1 Over-all Results

A total 117 students of Arts and Science faculty were assessed for the environmental awareness Overall score was 1543.5. Mean score was 13.29 (53.16%). Overall awareness level was found to be average.

Total number of boys was 40 and girls were 77. Average score of boys was 13.63 and that of girls was 12.96. Over-all awareness among boys (54.52% score) as well as among girls (51.84% score) was found to be average.

S. No	Total Number		Overall Score		Mean Score		S.D.		Overall Level	
	Girls	Boys	Girls	Boys	Girls	Boys	Girls	Boys	Girls	Boys
1.	77	40	998	545.5	12.97 (51.84%)	13.63 (54.52%)	±3.220	±3.075	average	average

Table: Overall Score, mean score and overall awareness in rural UG students



Graph: Comparison of Overall Score of Boys and Girls in rural area

#### 3.2 Overall level of awareness

Level of awareness	% of students	Girls			Boys		
		High	Average	Low	High	Average	Low
High	03.42%						
Average	52.13%	3.89%	45.45%	50.60%	2.5%	65%	32.5%
Low	44.45%						

Table: Overall Level of awareness among students among boys & girls

Table: Level of awareness

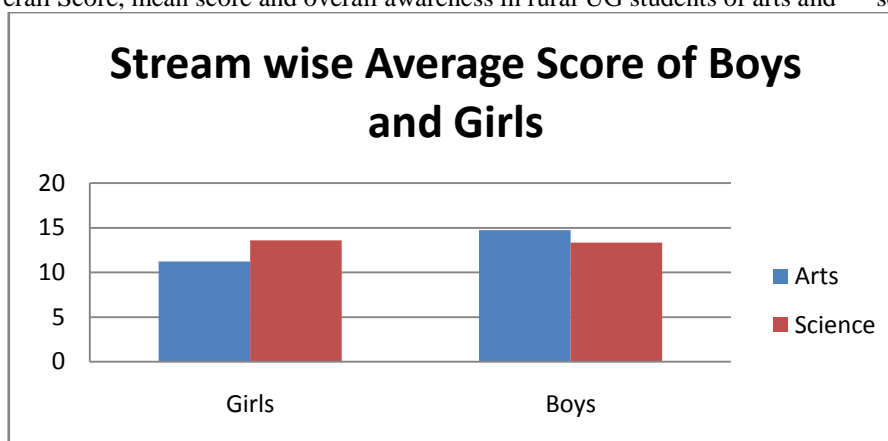
Table shows that there is general lack of awareness regarding environment. Percentage of students with high level of awareness is extremely low.

#### 3.3 Stream-wise Result:

Out of 117 students 29 students were from Arts stream and 88 were from Science stream. Unequal number was due to random sampling. Average score of boys from Arts stream was 14.72 (58.88%) and that of girls was 11.22 (44.88%). Average score of boys from Science stream was 13.32 (53.28%) and that of girls was 13.57 (54.28%).

Stream	Total Girls	Total Score of Girls	Mean score of Girls	S.D.	Overall awareness	Total Boys	Total score of boys	Mean Score of boys	S.D	Overall awareness
Arts	20	224.5	11.22 (44.88%)	±0.7	Low	9	132.5	14.72 (58.88%)	±2.4	Average
Science	57	773.5	13.57 (54.28%)	±3.3	Average	31	413	13.32 (53.28%)	±3.2	Average

Table: Overall Score, mean score and overall awareness in rural UG students of arts and science stream



Graph: Comparison of stream wise Score of Boys and Girls in rural area

### 3.4 College-wise Result:

Overall awareness in students was found to be low in all the three colleges. However better score was shown by the students of Govt.College, Utai (58.34%) followed by Govt.College, Dondy Lohara (52.62%). The students of Govt.College, Dondy scored the lowest (50.95%).

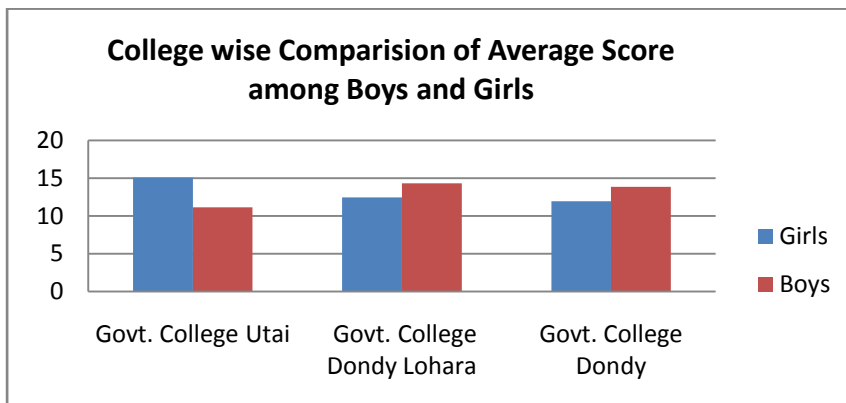
S.No.	Name of College	No. of Students	Overall score	Average Score	Awareness level
1.	Govt.College Utai	23	335.5	14.58 (58.34%)	average
2.	Govt.College Dondy Lohara	48	631.5	13.15 (52.62%)	average
3.	Govt.College Dondy	46	586	12.73 (50.95%)	average

Table: College wise comparison of overall awareness

Girls of Govt. College, Utai showed better score (60.40%) and better level of awareness than boys while boys performed better than girls in other two colleges as far as average score is concerned. Among girls, level of awareness was found to be highest in girls of Govt. College, Utai followed by Govt. College, Dondy Lohara and Govt. College Dondy. Among boys highest average score was observed in boys of Govt. College, Dondy Lohara(14.33) followed by Govt.College, Dondy (13.84) and Govt.College, Utai (11.16)

College	Girls				Boys			Overall awareness
	No.	Total score	Average score	Overall awareness	No.	Total score	Average score	
Govt.College Utai	20	302	15.10 (60.40%)	Average	03	33.5	11.16 (44.64%)	Low
Govt.College Dondy Lohara	30	373.5	12.45 (49.80%)	Low	18	258	14.33 (57.32%)	average
Govt.College Dondy	27	323	11.96 (47.84%)	Low	19	263	13.84 (55.36%)	average

Table: College wise comparison of overall awareness among boys and



Graph: College wise Comparison of Average Score among Boys and Girls

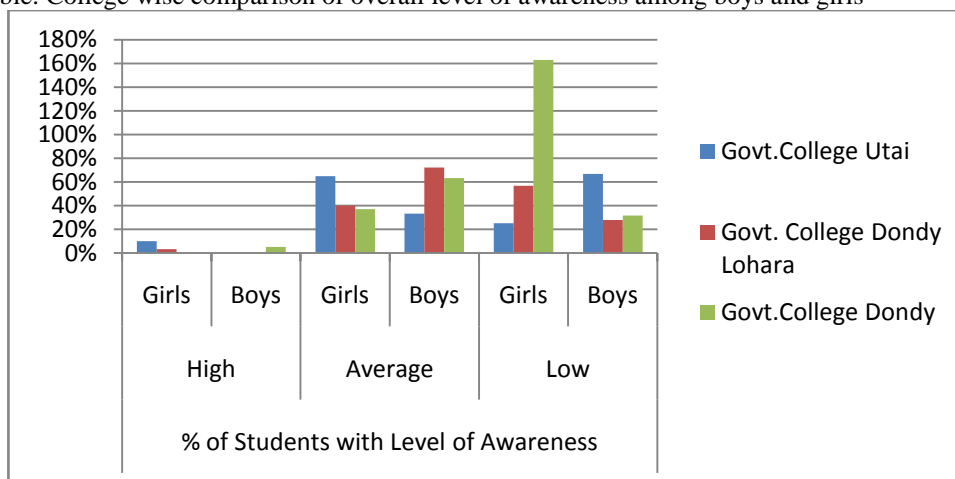
Regarding level of awareness 08% students of Govt.College Utai, only 2% students of Govt.College Dondy Lohara and 2% students from Govt.College Dondy showed high level of awareness. Near about 61% students of Govt.College Utai, 52% students of Govt.College Dondy Lohara and 48% students from Govt.College Dondy showed average level of awareness. Near about 30% students of Govt.College Utai, 46% students of Govt.College Dondy Lohara and 50% students from Govt.College Dondy showed low level of awareness.

Name of College	% of Students with Level of Awareness		
	High	Average	Low
Govt.College Utai	08.7%	60.90%	30.40%
Govt. College Dondy Lohara	02%	52%	46%
Govt.College Dondy	2%	48%	50%

Table: College wise comparison of overall level of awareness

Name of College	% of Students with Level of Awareness					
	High		Average		Low	
	Girls	Boys	Girls	Boys	Girls	Boys
Govt.College Utai	02 (10%)	Nil	13 (65%)	1(33.33%)	5 (25%)	02(66.66%)
Govt. College Dondy Lohara	01(03.33%)	Nil	12 (40%)	13(72.22%)	17(56.66%)	5 (27.77%)
Govt.College Dondy	Nil (0%)	01(5.26%)	10(37.03%)	12(63.15%)	17(62.96%)	6(31.57%)

Table: College wise comparison of overall level of awareness among boys and girls



Graph- College wise comparison of overall level of awareness among boys and girls

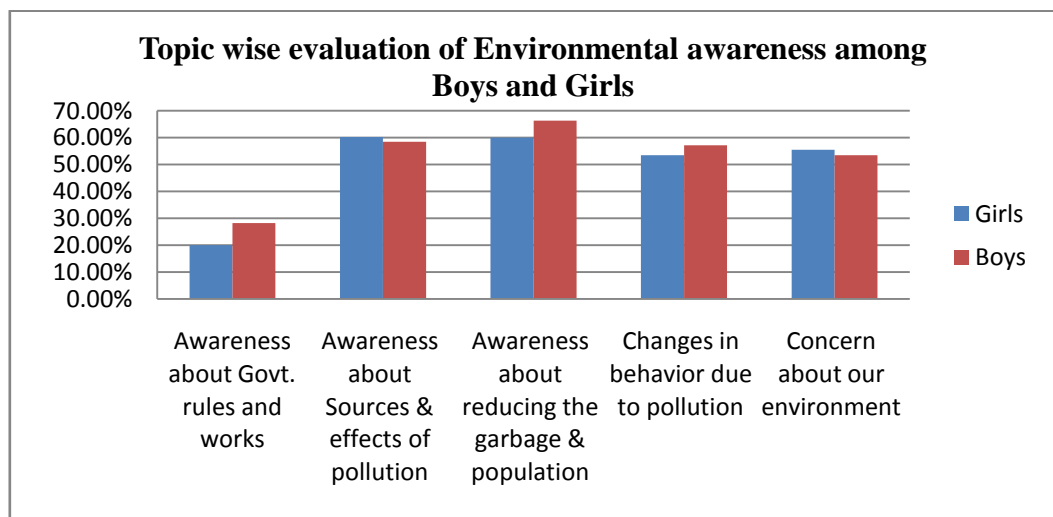
No significant difference was observed among boys and girls regarding level of awareness. Similarly no significant difference was observed among the students of arts and science faculty of different colleges.

**3.5 Results of Topic wise Evaluation:**

Results of Topic wise Evaluation suggest that lowest level of awareness was observed for awareness about Govt. rules and works both in girls (19.95) as well as in boys (28.25). Highest level of awareness was observed for awareness about reducing the garbage & population both in girls (60%) as well as in boys (66.33%) followed by awareness about Sources & effects of pollution (60.25% in girls and 58.50% in boys). Boys showed higher awareness (57.16%) than girls (53.50%) for changes in behavior due to pollution whereas girls showed higher awareness (55.50%) for Concern about our environment than boys (53.50%).

S. No.	Evaluation Topics	Mean Score (x)		S. D.		Level of awareness	
		Girls	Boys	Girls	Boys	Girls	Boys
1	Awareness about Govt. rules and works (Q. No 1.to 4)	0.798	1.13	±0.653	±0.66	Low (19.95)	Low (28.25%)
2	Awareness about Sources & effects of pollution (Q. No. 6,7,8,9)	2.41	2.34	±1.130	±1.01	Average(60.25)	average(58.50)
3	Awareness about reducing the garbage & population (Q. No. 5 & 10 to 17 )	5.39	5.97	±1.47	±1.38	Average (60%)	Average (66.33%)
4	Changes in behavior due to pollution ( Q. No. 18 to 23)	3.21	3.43	±1.02	±1.43	Average (53.50)	Average (57.16)
5	Concern about our environment (Q. No. 24 & 25)	1.11	1.07	±0.74	±0.68	Average (55.50)	Average (53.50)

Table: topic wise evaluation for environmental awareness



Graph: Topic wise evaluation of Environmental awareness among Boys and Girls

**IV. Discussion**

There is general lack of awareness among participants about environmental issues (Dhitinut ratnapradia et.al. 2011). Overall awareness was of average category (average 13.29 score points out of 25 points i.e. average score 53.16%) among the students surveyed. (Annu Bharadwaj and Anjana Behal 2011). Overall awareness was found higher in boys (Average score 13.63/25 i.e. 54.52% score) than in girls (average score 12.97/25 i.e. 51.84% score).

Among the students of different streams no significant difference was found among the science students and arts students but awareness was better in Science students (Average score 13.44) than Arts students (Average score 12.97)). This finding is in accordance with Neeraj Sharma (2014) and Tarun Malhotra (2012). There was no significant difference between boys and girls regarding overall awareness. But awareness was found more in boys (Average score 14.02 in boys as compared to 12.39 in girls) than the girls in (Tarun malhotra 2012 and Neeraj Sharma 2014). However Shobeiri et.al. (2007) and M. Sivamuroothy (2013) observed no significant difference in the level of environmental awareness between boys and girls.

As far as awareness among the boys of different stream is concerned level of awareness was found more among the arts stream boys (score point 14.72) than the science stream boys (score point 13.32) In girls level of awareness was higher among the girls of science stream (score point 13.57 than the girls of arts stream (score point 11.22) (Neeraj Sharma 2014).

It is a matter of serious concern that overall environmental awareness is not satisfactory among the student who are at the top of their educational journey and qualification. 45% students (50.60% girls and 32.5% boys) showed low level of awareness. More than 61% students from arts faculty and more than 37% students from science faculty showed low awareness towards environment. Study by J. Arun Kumar (2012) shows that even the teacher trainees also have average level of awareness with no significant difference between genders.

Measures should be taken to strengthen awareness towards environment protection and environmental problems right from the starting of undergraduate classes. An increased awareness can be achieved by increasing communication, supporting community action and behavioral changes programs. College must develop activities regarding the environment like planting and taking care of already planted vegetations in college premises and outside through NSS. Number of NSS units should be increased so that more and more students could be involved in these activities. "Sustainability corner" or "Bulletin board" in canteen or NSS room can be set up so that students and staff can share views and news regarding environmental problems. An environmental society can be formed at college level and encouraged to organize activities related to environment. Students should be encouraged to visit the places where the projects related to environmental protection and conservation are going on. Studies show that students showed more awareness and pro environmental attitude and behavior towards environmental problems and protection after an introductory environmental course (Julie E. Schmidt 2007). Kannika et.al.(2013) also reported that nature walk learning program and out-of-classroom activity promoted Environmental Awareness and Protection among College students

### **Bioliography**

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