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RESEARCH ARTICLE

COLLEGE STUDENT'S KNOWLEDGE ABOUT GLOBAL WARMING

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ABSTRACT

The study was intended to find out the Knowledge of Global Warming among the college students in Madurai District, Tamil Nadu, India. Random Sampling Technique was used to compose a sample of 1168 college students Mean, Standard Deviation and 't' value were calculated for the analysis of data. The result revealed that male and female students, rural and urban area students, arts and science group students exhibited significant difference but, nuclear and joint family students had no significant difference in respect of their Knowledge of Global Warming.

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INTRODUCTION

Environment has been defined as the sum total of all conditions and influences that affect the development and life of organisms. Environment is interwoven in day-to-day life of human beings and as such man plays a great role in preserving and improving the environment for the sake of development and a better future. Global Warming refers to an average increase in the earth's temperature, which in turn causes changes in climate. A warm earth may lead to changes in rainfall patterns, a rise in sea level, and a wide range of impacts on plants, wildlife and humans. When scientists talk about the issue of climate change, the concern is about Global Warming caused by human activities. Global Warming is an increase in the earth's average temperature. The Green house gases are the main culprits of the Global Warming. The green house gases like carbon dioxide, methane, and nitrous oxide are playing hazards in the present times. These green house gases trap heat in earth's atmosphere and thus result in increasing the temperature of earth.

Review of related literature

Villagran et al. (2010) examined the relationships among dimensions of health literacy, patient education about global warming and climate change (GWCC), and health behaviors. Results reveal that patients who have higher levels of health literacy are more likely to engage in mitigation behaviors. An empirically based set of recommendations for providers to educate patients about the health risks of global warming and climate change is proposed. Nolan, Jessica M. (2010) found that the film "an inconvenient truth" does increase the knowledge about the causes of Global warming.

May 24, 2006 millions of people have seen the movie "An Inconvenient Truth." Several countries have even proposed using the film as an educational tool in school classrooms. However, it is not yet clear that the movie accomplishes its apparent goals of increasing knowledge and concern, and motivating people to reduce their greenhouse gas emissions. Two studies are reported, one with a sample of community moviegoers, and one with a sample of students. Across the two studies, results show that watching "An Inconvenient Truth" does increase knowledge about the causes of global warming, concern for the environment, and willingness to reduce greenhouse gases.

Statement of the Problem

The problem selected for the present study is entitled as "College student's knowledge about Global Warming".

Objectives of the study

To find out,

1. The difference, if any, between male and female students in respect of their Knowledge of Global Warming.
2. The difference, if any, between rural and urban area students in respect of their Knowledge of Global Warming.
3. The difference, if any, between arts and science group students in respect of their Knowledge of Global Warming.
4. The difference, if any, between joint and nuclear family students in respect of their Knowledge of Global Warming.

Hypotheses of the study

The following null hypotheses were formulated for the purpose of testing.

1. There is no significant difference between male and female students in respect of their Knowledge of Global Warming.
2. There is no significant difference between rural and urban area students in respect of their Knowledge of Global Warming.
3. There is no significant difference between arts and science group students in respect of their Knowledge of Global Warming.
4. There is no significant difference between joint and nuclear family students in respect of their Knowledge of Global Warming.

METHOD OF THE STUDY

In order to realize the above said objectives, normative survey method was employed. Normative survey method study describes and interprets what exists at present. They are concerned with existing conditions or relations, prevailing practices, beliefs and attitudes etc. Such investigations are termed in research of literature as descriptive survey or normative survey.

Tools used

Knowledge of Global Warming Questionnaire was constructed and validated by the investigator. The Knowledge of Global Warming test used in this investigation contains 61 multiple choice items and needs one hour for a trainee to answer. The maximum mark for a question is 1 and the minimum mark is 0. So the respondents can score at the maximum of 61. The Knowledge of Global Warming test has construct validity. Its intrinsic validity was found to be 0.85. The reliability of the test by split-half technique was found to be 0.72.

Sample of the study

Random sampling technique has been used in the selection of the sample and as many as 1168 college students studying in Arts and Science Colleges situated in Madurai District, Tamil Nadu, India. There are 2 Government Colleges, 18 Aided Colleges and 12 self finance Colleges in Madurai District, Tamil Nadu, India. Out of these Arts and Science Colleges as many as 10 Colleges have been chosen. All the available college students studying in each of these selected Arts and Science Colleges were chosen as sample.

Statistical Techniques Used

1. The Knowledge of Global Warming scores of the various sub-samples were collected and their means and standard deviations were calculated (vide: Table 1).
2. The test of significance was used to test the hypotheses and the details of the calculations were given in Table 2.

Table 1. Knowledge of global warming scores of the sub-samples

Sub-samples	N	Mean	S.D.
Entire sample	1168	31.46	5.96
Male students	532	31.84	6.69
Female students	636	31.14	5.26
Rural area students	502	30.43	4.52
Urban area students	666	32.24	6.75
Arts group students	731	30.53	4.44
Science group students	437	33.02	7.62
Joint family students	412	31.31	5.62
Nuclear family students	756	31.54	6.14

The means of Knowledge of Global Warming are found to range from 30.43 to 33.02 in respect of their entire sample and its sub-samples. The mean of the Knowledge of Global warming scores for the entire sample is 31.46. Its median is 31.82 and its mode is 32.54. Its kurtosis is found to be 1.424 which is greater than 0.263 and hence the distribution is platykurtic. Its skewness is found to be 0.157. It can be seen from Table-4.1, that the standard deviation range from 3.65 to 5.03 and the interval is not very wide, suggesting that the group is nearly homogeneous. Because the mean, the median and the mode do not vary much, the distribution can be considered nearly normal.

Table 2. Difference between the means of the knowledge of global warming scores of the sub – samples

Sub - samples	N	Mean	S.D	't' value	Level of significance
Male students	532	31.84	6.69	1.99	
Female students	636	31.14	5.26		0.05
Rural area students	502	30.43	4.52	5.19	
Urban area students	666	32.24	6.75		0.01
Arts group students	731	30.53	4.44	7.06	0.01
Science group students	437	33.02	7.62		
Joint family students	412	31.31	5.62	0.62	
Nuclear family students	756	31.54	6.14		Not significant
					0.05

The details of the calculations are given in Table 2. In respect of Male and Female students ('t' value = 1.99) the 't' values are found to be significant at 0.05 level. In respect of Rural and Urban area students ('t' value = 5.19) and in respect of Arts and Science group students ('t' value = 7.06) the 't' values are found to be significant at 0.01 level. Therefore, the null hypotheses (1),(2) and (3) are rejected. It is concluded that there is significant difference between male and female, rural and urban area students, arts and science group students in respect of their Knowledge of Global warming. Moreover, the male students (Mean = 31.84) are found to be better than their female counter parts (Mean = 31.14) in their Knowledge of Global Warming. Moreover, the urban area students (Mean = 32.24) are found to be better than their rural counter parts (Mean = 30.43) in their Knowledge of Global Warming. Moreover, the students in science group (Mean = 33.02) are found to be better than their arts counter parts (Mean = 30.53) in their Knowledge of Global Warming. But, in respect of Joint family and Nuclear family students ('t' value = 0.62) the 't' values are found to be that the 't' values are not significant

at 0.05 level. Therefore, the null hypothesis (4) is retained. It is concluded that there is no significant difference between joint and nuclear family students in respect of their Knowledge of Global Warming.

Important findings

1. There is significant difference between male and female in respect of their Knowledge of Global Warming.
2. There is significant difference between rural and urban area students in respect of their Knowledge of Global Warming.
3. There is significant difference between arts and science group students in respect of their Knowledge of Global Warming.
4. There is no significant difference between joint and science nuclear students in respect of their Knowledge of Global Warming.

Conclusion

Thus the present study has shown that male and female students, rural and urban area students, arts and science group students differ significantly in their Knowledge of Global warming. It is also shown that Joint and Nuclear family students do not differ significantly in their Knowledge of Global Warming.

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