ENVIRONMENTAL AWARENESS OF GOVERNMENT AND PRIVATE SECONDARY SCHOOL

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Abstract

Environmental education for environmental awareness will prepare human society to protect the ecological balance. Environmental education aims at developing in them the knowledge, attitude, skills and communication to protect our nature. Environmental education is nothing but to educate human society to perceive environment in totality. Lack of environmental awareness regarding the preservation of the species & culture etc. and conservation of the forests are responsible for degradation of the environmental procurement at gross root level. If it continues, the human civilization will face disastrous situation. The investigator tried to study the awareness of our environment in six particular areas with 40 items. Environmental Awareness Scale was developed by the investigator herself. The six areas related to our environmental awareness are; i) population explosion; ii) knowledge regarding environment, health, hygiene and pesticides; iii) global warming and pollution; iv) social environment (use and misuse); v) duties and protection measure; vi) wildlife and forest conservation etc. The Environmental Awareness Scale is a five point scale. The reliability of the scale was 0.89 calculated by split half method and the content validity ensured by the expert judgement. The mean scores of government and private secondary school students were obtained on all the six areas mentioned in the study and it was concluded that there is a significant difference between government and private school students on the all six dimensions of environmental awareness.

Keywords: environmental education, environmental awareness, government and private schools

Introduction

The idea of sustainable development grew from numerous environmental movements in earlier decades. Summits such as the earth summit in Rio, Brazil, 1992, were major international meetings to bring sustainable development to the mainstream. In the present millennium, environmental degradation is a very big problem before mankind. For the development of the human race, man has been mercilessly exploiting natural resources and polluting the environment. Various environmental problems become a danger for environmental sustainability, among which the increasing level of wastes and air pollution, formation of ozone hole, acid rain, global warming etc are some of the issues of common concern. Many of these problems are rooted in human behaviour and can be improved by changing the relevant behaviour so as to reduce environmental degradation. Environmental activists and people in general who wish to make a less polluted environment and promote the sustainable use of natural resources, often believes that changes in behaviour is a function of knowledge and awareness. Therefore, creating environmental awareness among the students is the need of the hour. Women as the important educators for children can play a vital role in changing the behaviour that can lead to savings in food, water, energy consumption and ultimately in the protection of natural resources and biodiversity (Dash & Satapathy, 2007). Environmental consciousness has become a serious concern for discussion and deliberation. More effort is laid on the environmental education for generating environmental awareness and attitude of the people so they can take care of the earth, our life support base.

The term 'environmental awareness' refers to creating general awareness of environmental issues, their causes by bringing about changes in perception, attitude, values and necessary skills to solve environment related problems. Moreover, it is the first step leading to the formation of environmental behaviour. Ecological behaviour is defined as the range of human actions or activities, all shaped by the intention to protect the environment or reducing its deterioration, besides the impact on the environment itself (Stern , 2000).

Several earlier studies have been conducted on environmental awareness and ecological behaviour on various samples. Gihar (2011) studied the environmental responsibility among prospective teachers of Ghaziabad district of Uttar Pradesh. The study revealed no significant difference between rural and urban prospective teachers regarding environmental responsibility, whereas female prospective teachers have scored significant higher mean values on all the dimensions of Environmental Responsibility Assessment Inventory. Mondal and Mete (2010), conducted a study on the status of environmental awareness among 1000 secondary school students residing either in rural or urban areas. The results indicated that urban boys have higher environmental awareness than the rural ones. However no significant difference upon environmental awareness was found for boys and girls students. Duroy (2005), in his study showed that economic affluence has a marginal direct influence on environment awareness and no direct effect on environmental behaviour. The paper demonstrates that the degree of urbanization, the level of subjective well being and the level of income equality have direct

effects on awareness, while education, population pressure and happiness are significantly correlated with environmental behaviour. Suneetha (2007) in her study found that the secondary students have high environmental awareness. The locality of schools and medium of instruction has no bearing on environmental awareness but gender of students and management of school has a significant influence on the environmental awareness of students. Budak et. al (2005), found that rural students were more concerned about environmental issues than urban ones while male students were more reluctant on environmental issues than female students. Tuohini (2001), showed that the environmental awareness of the two groups i.e. boys and girls was somewhat similar. Both the groups are aware of environmental aspects but were not ready to transfer it to their consumer behaviour.

Objectives

The objectives of the study are:

a. To study the environmental awareness between students of government and private schools on the dimension of population exploration.

b. To study the environmental awareness between students of government and private schools on the dimension of knowledge regarding environment, health, hygiene and pesticides.

c. To study the environmental awareness between students of government and private schools on the dimension of global warming and pollution.

d. To study the environmental awareness between students of government and private schools on the dimension of social environment (use and misuse).

e. To study the environmental awareness between students of government and private schools on the dimension of duties and protection measure.

f. To study the total environmental awareness between students of government and private schools on the dimension of wildlife and forest conservation.

g. To study the total environmental awareness between students of government and private schools.

Hypotheses

Null hypotheses are framed which are as follows:

H_{01}: There is no significant difference between mean scores of government and private schools students on the dimension of population explosion.

H_{02}: There is no significant difference between mean scores of government and private schools students on the dimension of knowledge regarding environment, health, hygiene and pesticides.

H_{03}: There is no significant difference between mean scores of government and private schools students

on the dimension of global warming and pollution.

H_{04}: There is no significant difference between mean scores of government and private schools students on the dimension of social environment (use and misuse).

H_{05}: There is no significant difference between mean scores of government and private schools students on the dimension of duties and protection measure.

H_{06}: There is no significant difference between mean scores of government and private schools students on the dimension of wildlife and forest conservation.

H_{07}: There is no significant difference between mean scores of government and private schools students on total environmental awareness.

Sample of the Study

In this study 200 secondary school students were selected by using simple random sampling. Students were selected from one government school and two CBSE board schools (100 from each). The schools were located in the Aligarh district of U.P.

Description of the Tool

In the present study the '*Environmental Awareness Scale'* was used to assess the awareness of environment of the secondary school students. The '*Environmental Awareness Scale'* was developed by investigator herself. In this scale 40 items were include with six sub dimension. Following are the dimensions of this scale; i) population exploration; ii) knowledge regarding environment, health, hygiene and pesticides; iii) global warming and pollution; iv) social environment (use and misuse); v) duties and protection measure; and vi) wildlife and forest conservation.

Analysis and Discussion of Results

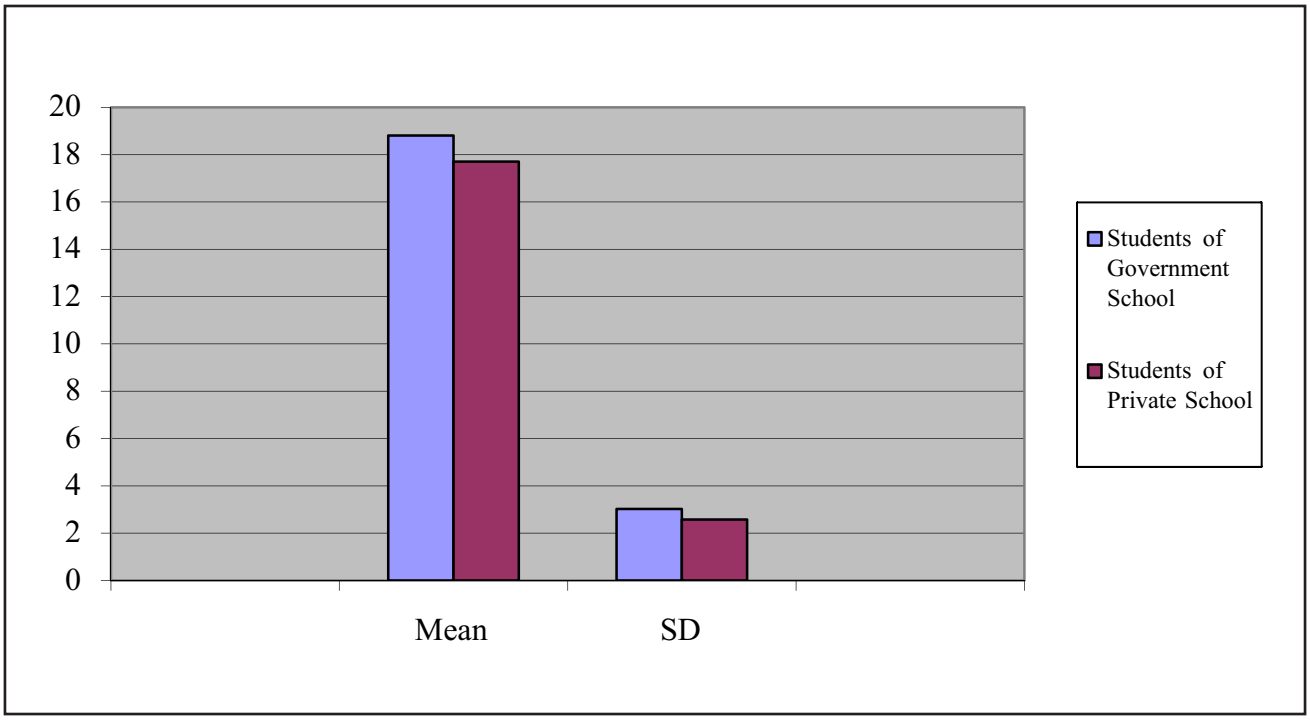
Objective 1: To compare the environmental awareness between students of government and private schools on the dimension of population exploration.

(H_{01}): There is no significant difference between mean scores of government and private schools students on the dimension of population explosion.

Table 1
Showing Difference between Government and Private Schools on the Dimension of Population Explosion

Type of School	N	Mean	SD	df	t-value	Remarks
Government Schools	100	18.81	3.02	198	2.76	Significant at 0.01 level
Private School	100	17.71	2.58			

Fig. 1
Column Chart Showing Comparison between Government and Private School Students



Interpretation: Table 1 shows that the mean scores of students of government school is 18.81 and that of students of private school is 17.71 with standard deviation of 3.02 and 2.58, respectively on the dimension of population explosion of environmental awareness. The calculated t-value is 2.76 with 198 degree of freedom. Tabulated t-value for 198 degree of freedom is 2.63 at 0.01 level of significance. Hence, calculated t-value is more than tabulated value. So, the null hypothesis H_{01} is rejected. Therefore, it is clearly shown that there is a significant difference between the mean scores of government and private school students (fig. 1).

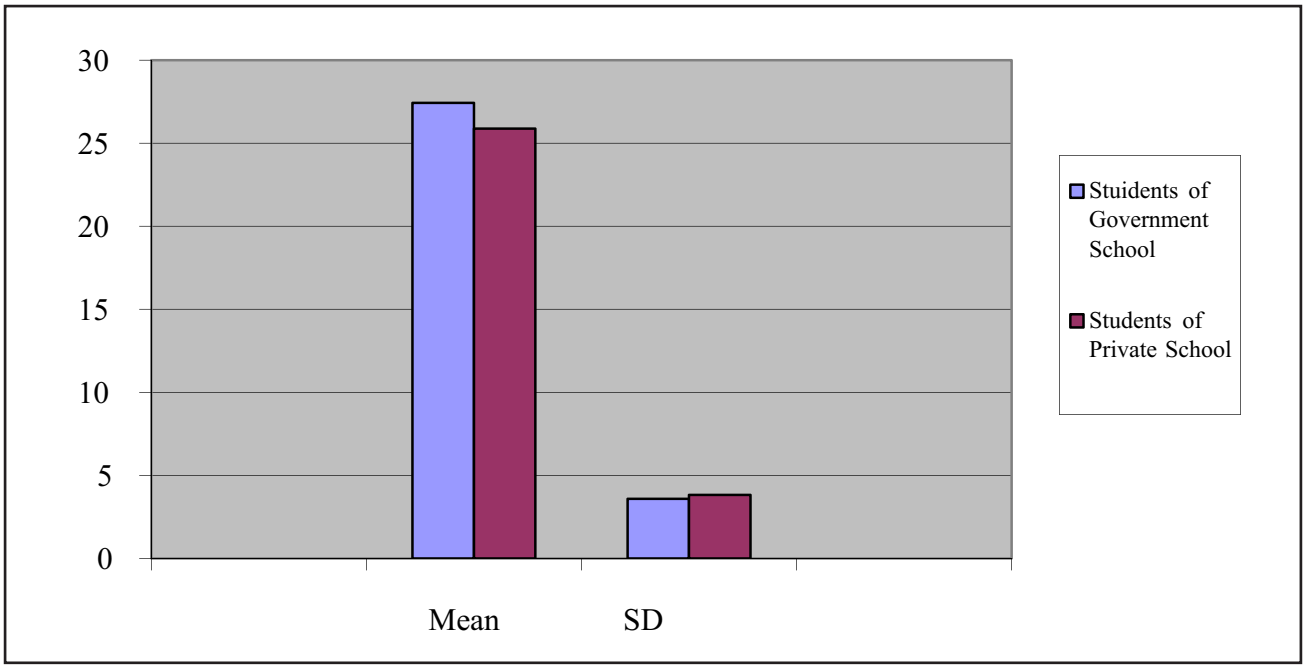
Objective 2: To compare the environmental awareness between students of government and private schools on the dimension of knowledge regarding environment, health, hygiene and pesticides.

(H_{02}): There is no significant difference between mean scores of government and private schools students on the dimension of knowledge regarding environment, health, hygiene and pesticides.

Table 2
Showing Difference between Government and Private Schools on the Dimension of Knowledge Regarding Environment, Health, Hygiene and Pesticides

Type of Schools	Gender	N	Mean	SD	df	t-value	Remarks
Government Schools	Male	100	27.43	3.59	198	2.95	Significant at 0.01 level
Private Schools	Female	100	25.88	3.83			

Fig. 2
Column Chart Showing Comparison between Government and Private School Students



Interpretation: Table 2 shows that the mean scores of students of government school is 27.43 and that of students of private school is 25.88 with standard deviation of 3.59 and 3.83, respectively on the dimension of population knowledge regarding environment, health, hygiene and pesticides of environmental awareness. The calculated t-value is 2.95 with 198 degree of freedom. Tabulated t-value for 198 degree of freedom is 2.63 at 0.01 level of significance. Hence, calculated t-value is more than tabulated value. So, the null hypothesis Ho2 is rejected. Therefore, it is clearly shown that there is a significant difference between the mean scores of government and private school students (fig. 2).

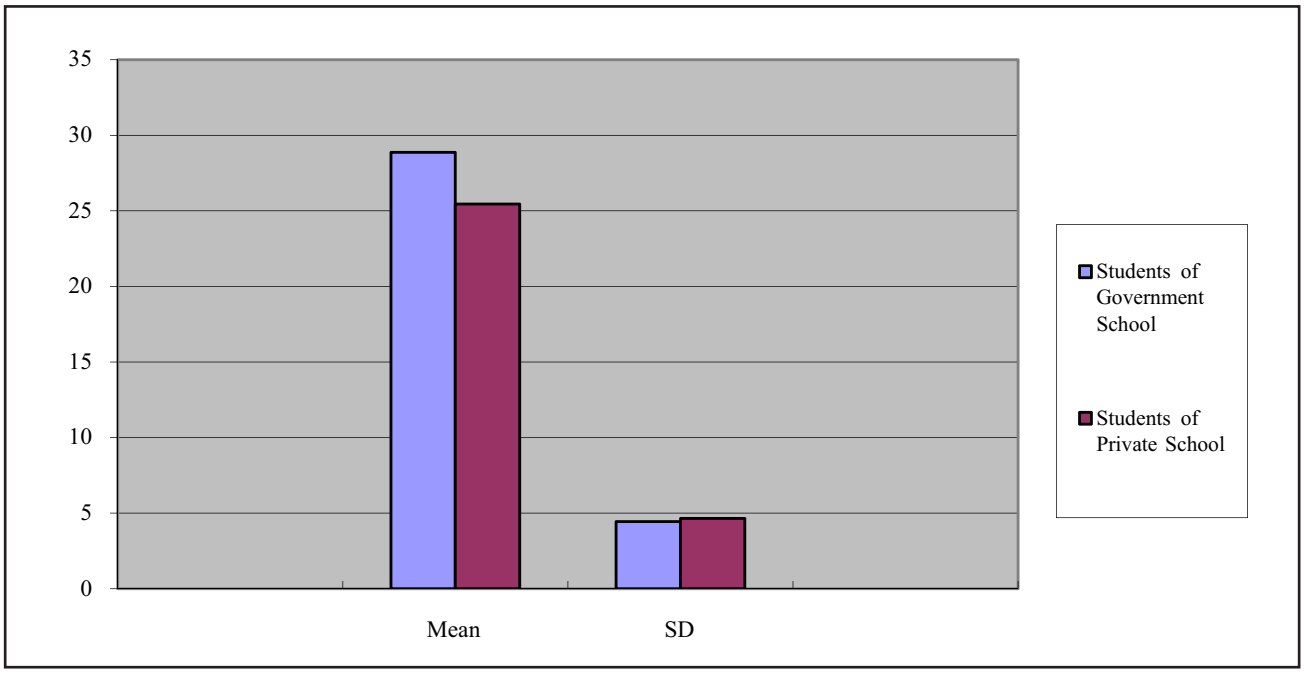
Objective 3: To compare the environmental awareness between students of government and private schools on the dimension of global warming and pollution.

(H_{03}): There is no significant difference between mean scores of government and private schools students on the dimension of global warming and pollution.

Table 3
Showing Difference between Government and Private Schools on the Dimension of Global Warming and Pollution

Type of Schools	Gender	N	Mean	SD	df	t-value	Remarks
Government Schools	Male	100	28.87	4.44	198	5.31	Significant at 0.01 level
Private Schools	Female	100	25.45	4.65			

Fig. 3
Column Chart Showing Comparison between Government and Private School Students



Interpretation: Table 3 shows that the mean scores of students of government school is 28.87 and that of students of private school is 25.45 with standard deviation of 4.44 and 4.65, respectively on the dimension of global warming and pollution of environmental awareness. The calculated t-value is 5.31

against tabulated t-value for 198 degree of freedom is 2.63 at 0.01 level of significance. Hence, calculated t-value is more than tabulated value. So, the null hypothesis Ho3 is rejected. Therefore, it is clearly shown that there is a significant difference between the mean scores of government and private school students (fig. 3).

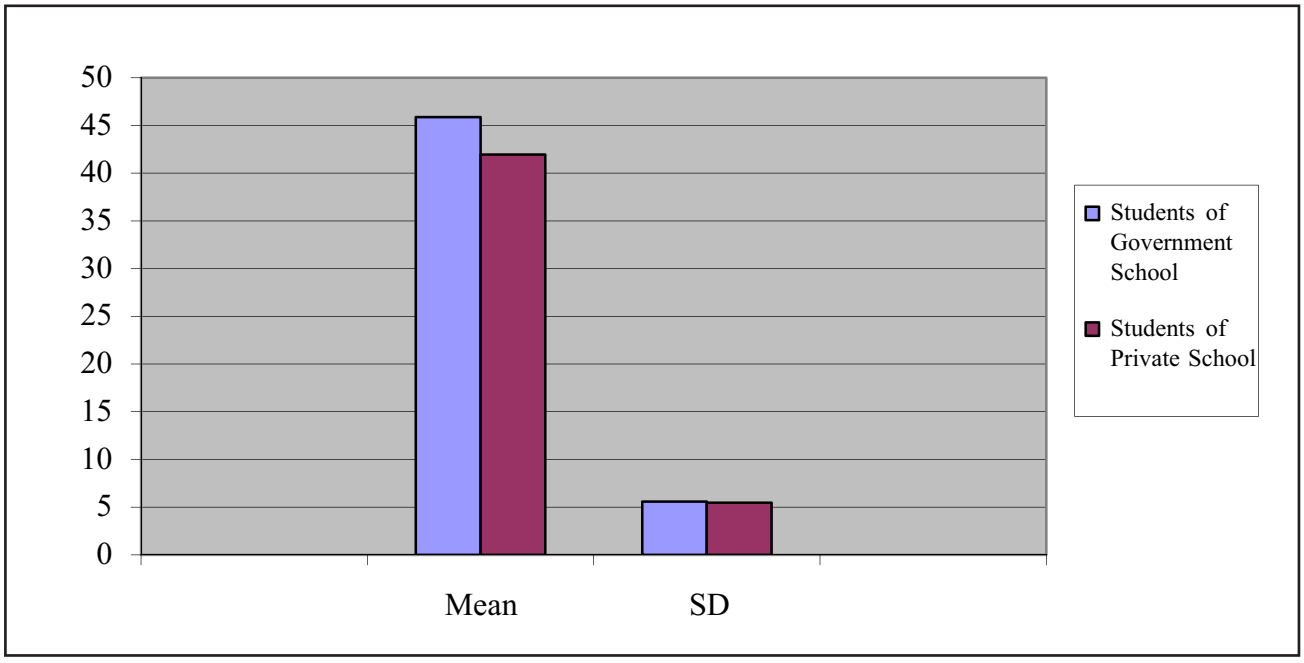
Objective 4: To compare the environmental awareness between students of government and private schools on the dimension of social environment (use and misuse).

(H_{04}): There is no significant difference between mean scores of government and private schools students on the dimension of social environment (use and misuse).

Table 4
Showing Difference between Government and Private Schools on the Dimension of Social Environment (Use and Misuse)

Type of Schools	Gender	N	Mean	SD	df	t-value	Remarks
Government Schools	Male	100	38.6	4.95	198	4.88	Significant at 0.01 level
Private Schools	Female	100	35.11	5.39			

Fig. 4
Column Chart Showing Comparison between Government and Private School Students



Interpretation: Table IV shows that the mean scores of students of government school is 38.69 and that of students of private school is 35.11 with standard deviation of 4.95 and 5.39, respectively on the dimension of social environment (use and misuse) of environmental awareness. The calculated t-value is 4.88 where as the tabulated t-value for 198 degree of freedom is 2.63 at 0.01 level of significance. Hence, calculated t-value is more than tabulated value. So, the null hypothesis Ho4 is rejected. Therefore, it is clearly shown that there is a significant difference between the mean scores of government and private school students (fig. 4).

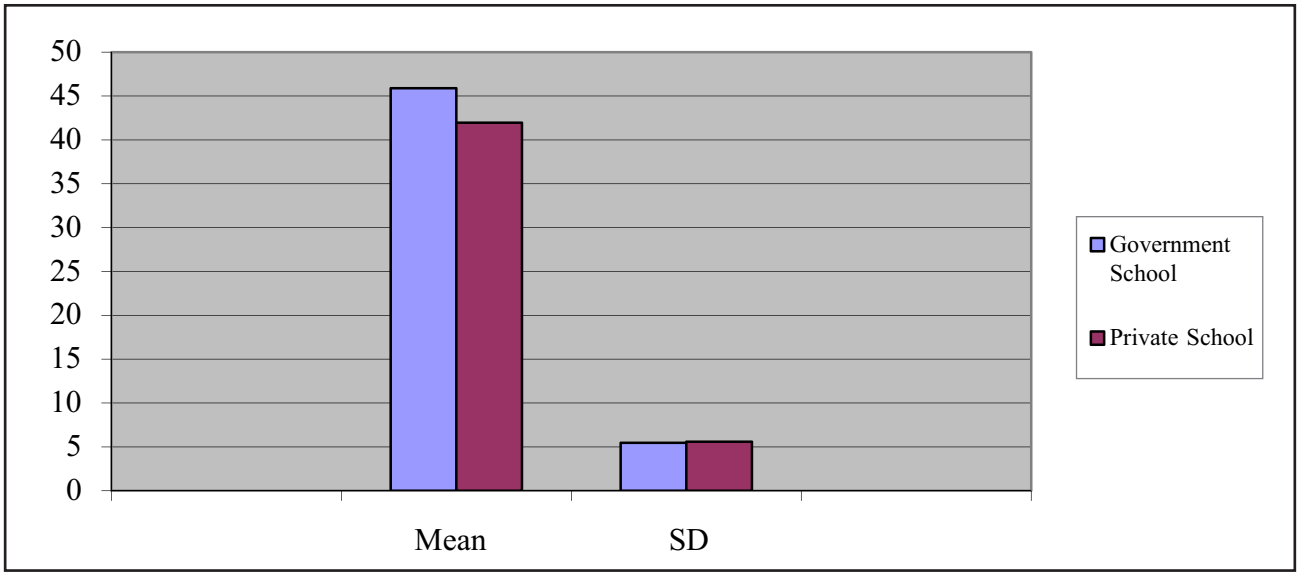
Objective 5: To compare the environmental awareness between students of government and private schools on the dimension of duties and protection measure.

(H_{05}): There is no significant difference between mean scores of government and private schools students on the dimension of duties and protection measure.

Table 5
Showing Difference between Government and Private Schools on the Dimension of Duties and Protection Measure

Type of Schools	Gender	N	Mean	SD	df	t-value	Remarks
Government Schools	Male	100	45.88	5.47	198	5.007	Significant at 0.01 level
Private Schools	Female	100	41.96	5.59			

Fig. 5
Column Chart Showing Comparison between Government and Private School Students



Interpretation: Table V shows that the mean scores of students of government school is 45.88 and that of students of private school is 41.96 with standard deviation of 5.47and 5.59, respectively on the dimension of duties and protection measure of environmental awareness. The calculated t-value is 5.007 but the tabulated t-value for 198 degree of freedom is 2.63 at 0.01 level of significance. Hence, calculated t-value is more than tabulated value. So, the null hypothesis Ho5 is rejected. Therefore, it is clearly shown that there is a significant difference between the mean scores of government and private school students (fig. 5).

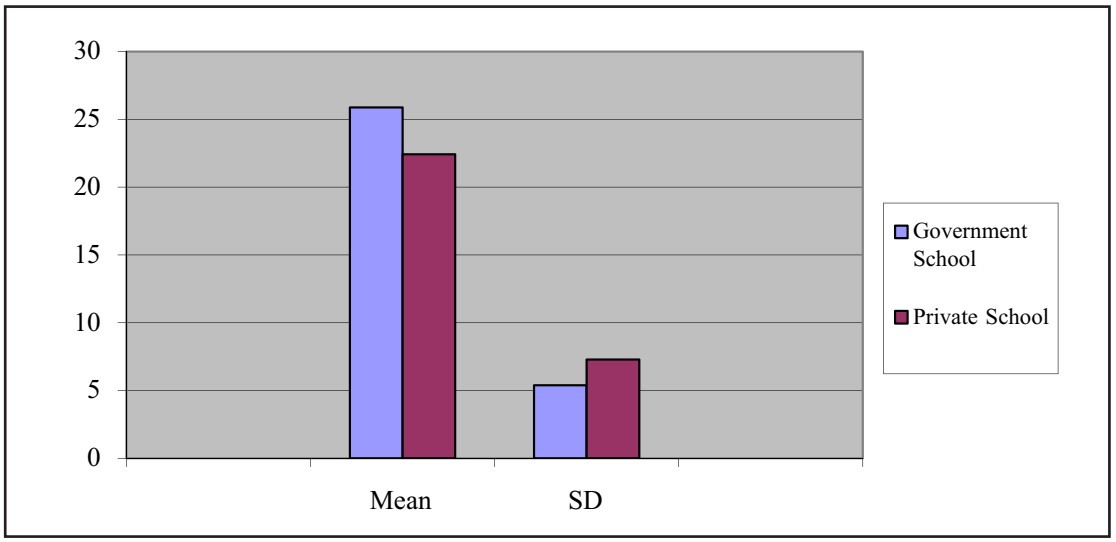
Objective 6: To compare the environmental awareness between students of government and private Schools on the dimension of wildlife and forest conservation.

(H_{06}): There is no significant difference between mean scores of government and private schools students on the dimension of wildlife and forest conservation.

Table 6
Showing Difference between Government and Private Schools on the Dimension of Wildlife and Forest Conservation

Type of Schools	Gender	N	Mean	SD	df	t-value	Remarks
Government Schools	Male	100	25.88	5.39	198	3.81	Significant at 0.01 level
Private Schools	Female	100	22.42	7.28			

Fig. 6
Column Chart Showing Comparison between Government and Private School Students



Interpretation: Table VI shows that the mean scores of students of government school is 25.88 and that of students of private school is 22.42 with standard deviation of 5.39 and 7.28, respectively on the dimension of wildlife and forest conservation of environmental awareness. The calculated t-value is 3.81 but the tabulated t-value for 198 degree of freedom is 2.63 at 0.01 level of significance. Hence, calculated t-value is more than tabulated value. So, the null hypothesis Ho6 is rejected. Therefore, it is clearly shown that there is a significant difference between the mean scores of government and private school students (fig. 6).

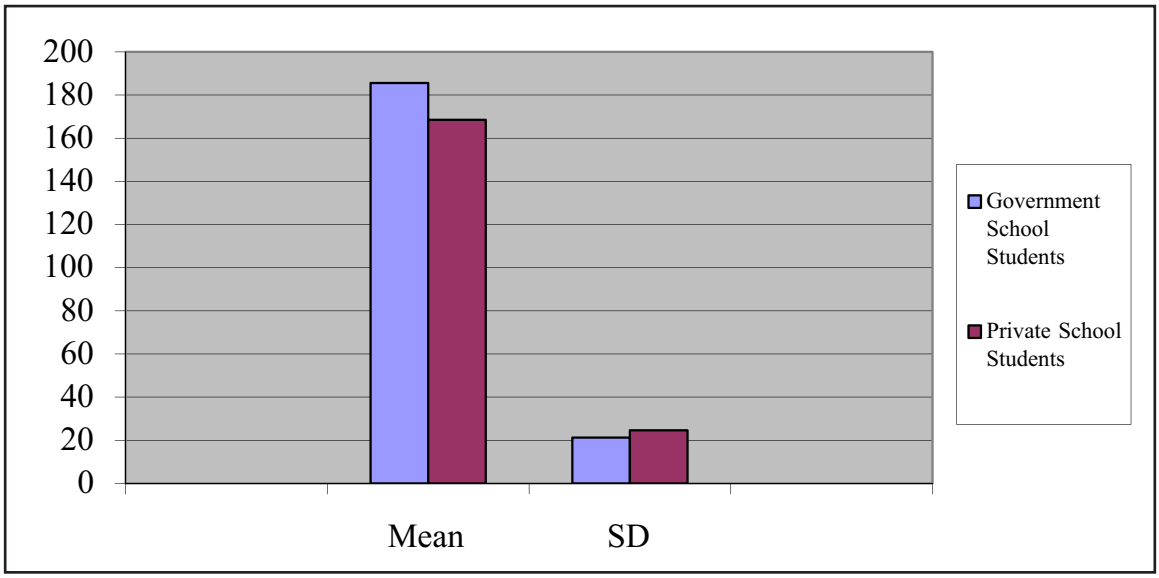
Objective 7: To compare the total environmental awareness between students of government and private schools.

(H_{07}): There is no significant difference between mean scores of government and private schools students on total environmental awareness.

Table 7
Showing Difference between Total Students of Government and Private Schools

Type of Schools	Gender	N	Mean	SD	df	t-value	Remarks
Government Schools	Male	100	185.56	21.26	198	5.23	Significant at 0.01 level
Private Schools	Female	100	168.53	24.62			

Fig. 7
Column Chart Showing Comparison between Government and Private School Students



Interpretation: Table 7 shows that the mean scores of students of government school is 185.56 and that of students of private school is 168.53 with standard deviation of 21.26 and 24.68, respectively on the total students of secondary school of environmental awareness. The calculated t-value is 5.23 but the tabulated t-value for 198 degree of freedom is 2.63 at 0.01 level of significance. Hence, calculated t-value is more than tabulated value. So, the null hypothesis Ho7 is rejected. Therefore, it is clearly shown that there is a significant difference between the mean scores of government and private school students (fig. 7).

Conclusion

From the above analysis it is revealed that there is significant difference in all the six dimensions of environment awareness between government and private school student. The result indicated that the null hypotheses is rejected:

a. There is significant difference between government and private secondary school students on the dimension of population explosion.

b. There is significant difference between government and private secondary school students on the dimension of knowledge regarding environment, health, hygiene and pesticides.

c. There is significant difference between government and private secondary school students on the dimension of global warming and pollution.

d. There is significant difference between government and private secondary school students on the dimension of duties and protections measures.

e. There is significant difference between government and private secondary school students on the dimension of wild life and forest conservation.

f. There is significant difference between government and private secondary school students on the total environmental awareness

This elaborated that there is significant difference between government and private school students on environmental awareness including six areas mentioned above which explains that private secondary student were more aware of environment than government schools students. To conclude we can say that government should negotiate in this direction. Government should make such programmes for government schools which make the students environmentally aware and eco friendly. Hence, it is essential to spread environmental awareness for building ecologically sustainable society.

References

- Budak, D.B., Budak, F., Zaimuglu, Z., Keke, & Sucu, M.Y. (2005). Behaviour and Attitudes of Students Towards Environmental Issues at Faculty of Agriculture, Turkey. *Journal of Applied Sciences*. 5, 1224-1227.
- Dash, D. & Satapathy, M.K., (2007). Education for Sustainable Development Role of college and Teacher Training Institutions. *University News*, *45*(49), 1-12.
- Duroy, Q. M. (2005). The determinants of environmental awareness and behaviour. *Rensselaer Working Papers in Economics. Rensselaer Polytechnic Institute, Department of Economics*.
- Earth Summit in Rio (Brazil, 1992). As cited in Shah, A. (2012). Sustainable Development. Retrieved from http://www.globalissue.org/issue/367/sustainable-development
- Gihar, S. (2011). Prospective Teachers' Responsibility Towards Environment. *BRICS Journal of Educational Research*, *1*(2), 74-79.
- Kumari, S. (2013). Environmental Awareness Scale (Unpublished).*Department of Education, A.M.U.Aligarh.*
- Mondal, B.C. & Mete, J. (2010). A Comparative Study of Environmental Awareness among Secondary School Students in Relation to Gender and Residential Background. *Sikshachintan*. 4, 17-21.
- Stern, P.C. (2000). Toward a coherent theory of environmentally significant behaviour. *Journal of Social Sciences, 56* (3), 407 424.
- Suneetha, G. (2007). Environmental awareness of school students, *Vedams books for India.*
- Tuohini, A. (2001). Environmental Awarenes And Environmentally friendly behaviour-case Sulkava rowing event. *Savonlina Institute for Regional Development and Research. Finland.*