Abstract

CHILDREN ARE THE TRUE ENVIRONMENTAL HEROES OF TODAY

It is quite self evident that the whole humanity is today facing an unprecedented situation with respect to the global conditions of environmental degradation. In fact, the concern for the environmental problems has never been so high as it is now. It is essential to reorient the attitude and behaviour towards the use of environmental resources with great caution and control. It is indispensable to educate the school children about the present environmental conditions. Education system is not only supposed to impart instruction to the student but attitude and behaviour within students about the immediate environment. Attitude and behaviour towards the environment of Secondary School Children are a matter of great concern for all those related to education.

Environmental degradation is not something very new, but man has realized it too late his zeal for scientific advancement and material prosperity at any cost. Environmental Education emerged as a result of Man's consciousness about environment protection and conservation. Various studies have been conducted in the area of environmental education since the time education has been realized to be a strong
means for bringing about change in behaviour and attitude of Man. Stockholm Conference which held in 1972 was the first sign of awareness among the people throughout the world with regard to conservation of environment. After this Conference scholars started conducting research in this area. By now almost every aspect of Environmental Education including objectives, methods curriculum, teaching material and evaluation have been touched. United nations, concern over environmental problem was the beginning in the area of Environmental Education which provided impetus to works in this field of study. Some of the attempts made in this regards are Abraham & Arjuman (2004), Rajpoot, Saxena, Jadan, 1980; Mohanty 1977; Martha, 1989; Malik; 1993; Shaista Jabeen, 1997; David (1986) Elesevier, 1996; Suresh, Kadheravan 2007; Saba Zafar, 2002. But only few students are directly and comprehensively related with the problem, raised by the researcher. Thus the present work is a humble attempt to bridge the gap in this particular area of research.

The present study in specific terms is therefore, “Impact of Environmental Awareness Programmes on Attitude and Behaviour of Secondary School Children”.
Abstract

Objectives of the Study:

The present work has thus been carried out with the following objectives as mentioned in chapter 1.

1. To measure the attitude and behaviour of Secondary School Children towards their environment (before applying environmental awareness programmes).

2. To develop a suitable environmental awareness programme for secondary school children.

3. To analyze the changes in environmental attitude and behaviour of secondary school children (after applying the above-mentioned environmental awareness programmes).

4. To see the effect of religion, gender and other demographic factors on the environmental attitude and behaviour of secondary school children.

Hypotheses:

1. The environmental awareness programme will not bring about a positive change in the attitude and behaviour of secondary school children.
2. Environmental awareness and participation in environmental protection activities by secondary school children will not vary with their religion.

3. Gender will not affect their attitude and behaviour of secondary school children towards the environment.

4. The socio-economic background will not affect the environmental awareness and active participation of secondary school children in environmental protection.

5. Gender in combination with Socio Economic Status and religion will not influence environmental awareness of the secondary school children.

Sample:

The Sample population of this study consists of 500 secondary school children of Aligarh city. Aligarh is a B grade city of Uttar Pradesh (UP). It has many other Secondary Schools.

Tools:

In this present investigator employee the following tools:
a. Scale for assessing Behaviour towards Environment (SABE) self constructed by researcher herself.

b. Taj Environmental Attitude Scale (TEAS) constructed by Dr. Mrs. Haseen Taj.

**Statistical Techniques Used:**

Following statistical techniques have been treated on the available data for analysis.

Calculations of Means and SDs to obtain different types of attitude and behaviour existing in the student of different professional courses.

Significance of difference in scores of pre-test (Data before applying the environmental awareness programmes) and post test (data after applying the environmental awareness programmes) of secondary school children analyzed by using the 't' test.

a. 't' test

In order to find out the difference in degree of environmental awareness on pre and post test of the selected samples on the basis of Gender.
\[ T = \frac{M_1 - M_2}{\sqrt{\frac{N_1 \sigma_1^2 + N_2 \sigma_2^2}{N_1 + N_2 - 2} \left[ \frac{N_1 + N_2}{N_1 N_2} \right]}} \]

Where:

- \( M_1 \) = Mean of I group
- \( M_2 \) = Mean of II group
- \( Q_1 \) = S.D. of I group
- \( Q_2 \) = S.D. of II group
- \( N_1 \) = No. of cases on I group
- \( N_2 \) = No. of cases on II group

**Conclusion:**

The findings of present investigation may be summarized according to the objectives of the present study as follows:

1. To measure the attitude and behavior of Secondary School Children towards their environment (before applying environmental awareness program).

   i) There was a significant difference in environmental attitude of Muslims in comparison to non-Muslims. (Table No. 4.1)
ii) On comparing the behaviour of Muslims and non-Muslims secondary school children towards environment, no significant difference was observed, there was hardly any difference in the mean value of the above two comparable groups. (Table No. 4.2)

iii) While comparing the attitude of male and female students of secondary school towards the environment as notable difference in the attitude of students was found. (Table No. 4.3).

iv) While comparing the behavior of male and female students of secondary school towards the environment a notable there was no significant difference in the behaviour of students was found. On the other hand the behavior was found to be same in both the groups (before applying the environmental awareness programs) (Table No. 4.4).

v) No significant difference was found in between secondary school children belonging to middle SES and High SES's regarding attitude towards the environment before applying the environmental awareness programs. (Table No. 4.5)

vi) On the other hand it was concluded when behaviour of middle SES was compared with high SES Secondary School Children, there was
a significant difference found, where middle SES students possesses high degree of environmental behaviour than high SES students. (Table No. 4.6)

vii) While comparing the attitude of low SES students with middle SES students of secondary school towards the environment there was no significant difference found, this showed that both SES groups have same degree of environmental attitude (Table No. 4.7).

viii) While comparing the behavior of low SES students with middle SES students of secondary school towards the environment there was no significant difference found, this showed that both SES groups have same degree of environmental behavior (Table No. 4.8).

ix) There was no significant difference found in attitude of Low SES students of secondary school and high SES students of secondary school (Table No. 4.9).

x) There was significant difference noticed as far as behavior of both the groups was concerned where the low SES group possessed greater environmental behavior than high SES. (Table No. 4.10).

2 To develop the suitable environmental awareness programs for secondary school children.
i) To improve the environmental awareness in attitude and behaviour of secondary school children, investigator implemented some environmental awareness programs on them, after collecting the data of pre-test. She implemented some programs related to environment, like essay competition, drawing competition make demonstration and some charts, visuals, play some games like quiz with the students, her motto was to improve the environmental attitude and behaviour of students of secondary schools.

3. To analyze the changes in environmental attitude and behaviour of secondary school children of secondary school children after applying the above mentioned program.

i) The in-depth investigation revealed that there was a significant difference found in Muslim students of secondary school and non-Muslim students of secondary school on attitude towards the environment after applying the environmental awareness programmes. (Table No. 4.11)

ii) The in-depth investigation revealed that there was a significant difference found in Muslim students of secondary school and non-Muslim students of secondary school on behavior towards the
Abstract

iii) The significant difference in attitude of male and female students of secondary school (after applying the environmental awareness programs) revealed that environmental awareness programs have positive impact on attitude of gender (Table No. 4.13)

iv) While comparing the behaviour of male students of secondary school with female students of secondary school (after applying the environment awareness programs). There was no significant difference found. (Table No. 4.14)

v) While comparing the post test of middle SES with high SES students regarding the environmental attitude, no significant difference were found in both SES groups, this shows that both groups have same degree of attitude. (Table No. 4.15)

vi) While comparing the post test of middle SES students with high SES students regarding the environmental behavior, no significant difference were found in both SES groups, this shows that both groups have same degree of behavior. (Table No. 4.16)
vii) While comparing the middle SES students with low SES students where the attitude of middle SES was higher than low SES students of secondary school towards the environment. (Table 4.17)

viii) A comparison of low SES secondary school students with middle SES secondary school students on environmental behaviour was made. There was a significant difference found in the behaviour. It shows that environmental awareness programs have positive effect on attitude and behaviour of low SES students where middle SES students possess more environmental attitude and behaviour than low SES students. (Table No. 4.18)

ix) When attitude of low SES students of secondary school was compared with high SES students, there was found a significant difference in attitude where high SES students have a high degree of attitude. (Table No. 4.19)

x) While comparing the attitude of low SES students of secondary school with high SES students, there was found a significant difference in behavior where high SES students have high degree of attitude but have less environmental behavior than low SES after applying the environment awareness programs (Table No. 4.20)
4 To see the effect of gender, religion and other demographic factors on the attitude and behaviour of secondary school children.

i) There was found significant difference in attitude of secondary school children in mean value of pre-test and post-test on total sample. (Table 4.21)

ii) There was found significant difference in behavior of secondary school children in mean value of pre-test and post-test on total sample. (Table 4.22)

iii) When the mean value of pre-test (before applying the environmental awareness programs) was compared with the post test (after applying the environmental awareness programs) of non-Muslims students regarding the attitude towards the environment there was found a significant difference, this shows that environmental awareness programs have positive effect on attitude and behavior of non-Muslim students (Table No. 4.23)

iv) When the mean value of pre-test (before applying the environmental awareness programs) was compared with the post test (after applying the environmental awareness programs) of non-
Muslims students regarding the students regarding the behaviour towards the environment there was found a significant difference, this shows that environmental awareness programs have positive effect on attitude and behaviour of non-Muslim students (Table No. 4.24)

v) When the environmental attitude of Muslim students of secondary school was analyzed on the basis of pre-test and post-test, there existed a significant difference in mean value of pre-test and post-test, where mean value of post test was higher than pre-test. It indicated that environment awareness programs have positive effect. (Table No. 4.25)

vi) When the environmental behaviour of Muslim students of secondary school was analyzed on the basis of pre-test and post-test, there existed a significant difference in mean value of pre-test and post-test, where mean value of post test was higher than pre-test. It indicated that environment awareness programs have positive effect. (Table No. 4.26)

vii) There was a significant difference in attitude of male students of secondary school towards the environment. The result presented in the
Abstract

Table, the mean value of post-test was greater than the mean value of pre-test. (Table 4.27)

viii) There was a significant difference in behaviour of male students of secondary school towards the environment. The result presented in the table, the mean value of post-test was greater than the mean value of pre-test. (Table 4.28)

ix) There was a significant difference found in pre-test and past test of female students. This shows that environmental awareness programs have positive effect on attitude of female students (Table 4.29)

x) There was a significant difference found in pre-test and past test of female students. This shows that environmental awareness programs have positive effect on behaviour of female students (Table 4.30)

xi) Environmental awareness programs have positive effect on attitude high SES groups of secondary school children, where mean value of post-test was significantly higher than pre-test. (Table 4.31)

xii) Environmental awareness programs have positive effect on behaviour of high SES groups of secondary school children, where mean value of post-test was significantly higher than pre-test. (Table 4.32)
xiii) There was a significant difference found in behaviour of middle SES groups of secondary school children, where mean value of post-test was significantly higher than pre-test. (Table 4.33)

xiv) Environmental awareness programs have positive effect on behavior of middle SES groups of secondary school children, where mean value of post-test was significantly higher than pre-test. (Table 4.34)

xv) There was a significant difference found in attitude of low SES groups of secondary school children, where mean value of post-test was significantly higher than pre-test. (Table 4.35)

xvi) Environmental awareness programs have positive effect on behavior of low SES groups of secondary school children, where mean value of post-test was significantly higher than pre-test. (Table 4.36)

xvii) The mean values of pre-test and post-test confirmed that there existed a significant difference in attitude of Muslim boys of low SES after applying the environmental awareness programs. (Table 4.37)

xviii) The mean values of pre-test and post-test confirmed that there existed a significant difference in behavior of Muslim boys of low SES after applying the environmental awareness programs. (Table 4.38)
xix) When the attitude of Muslim boys of middle SES was compared on the basis of pre-test with post-test, a significant difference was found in attitude towards the environment. (Table 4.39)

xx) When the behavior of Muslim boys of middle SES was compared on the basis of pre-test with post-test, a significant difference were found in behavior towards the environment. (Table 4.40)

xxi) The mean value of pre-test was lesser than post-test mean value when the attitude of Muslims boys of high SES was analyzed, there was a significant difference found in attitude of Muslim boys of High SES towards the environment. (Table 4.41)

xxii) There was no significant difference found in behavior of Muslim boys of High SES towards the environment. (Table 4.42)

xxiii) The result of the pre-test and post test confirmed that there existed a significant difference in the attitude of Muslim girls of low SES group. (Table 4.43)

xxiv) The result of the pre-test and post test confirmed that there existed a significant difference in the behavior of Muslim girls of low SES group. (Table 4.44)
xxv) When the pre-test and post test of Muslim girls of middle SES Secondary school was measured, it was noticed that there existed a significant difference in the attitude of Muslim girls of Middle SES. (Table 4.45)

xxvi) When the pre-test and post-test of Muslim girls of middle SES Secondary school was measured, it was noticed that there existed a significant difference in the behavior of Muslim girls of Middle SES. (Table 4.46)

xxvii) Amongst the Muslim girls of high SES group the application of pre-test and post-test showed significant difference in attitude. (Table 4.47)

xxviii) When behaviour of Muslim girls of high SES was compared on the basis of pre-test and post-test there was no significant difference found. The behaviour was not changed after applying the environmental awareness programs. (Table 4.48)

xxix) The non-Muslim boys of low SES group had a significant difference in attitude during the pre-test and post-test. This indicated that environmental awareness programs have positive effect on attitude. (Table 4.49)
xxx) The non-Muslim boys of low SES group had a significant difference in behavior during the pre-test and post-test. This indicated that environmental awareness programs have positive effect on attitude. (Table 4.50)

xxxi) When the environmental awareness programs were implemented on the non-Muslim boys of middle SES group, a significant difference in attitude and behaviour was noticed in the pre-test and post-test. (Table 4.52)

xxxii) The non-Muslim boys of high SES group also had a significant difference in their attitude during the post-test and pre-test. (Table 5.53)

xxxiii) The non-Muslim boys of high SES group had a significant difference in their behavior during the post-test and pre-test. (Table 5.54)

xxxiv) The difference in pre-test and post-test confirmed that there existed a significant difference in attitude of non-Muslim girls of low SES group. (Table 4.55)

xxxv) The difference in pre-test and post-test confirmed that there existed a significant difference in behavior of non-Muslim girls of low SES group. (Table 4.56)
There existed a significant difference in attitude of non-Muslim girls of middle SES group after applying the environmental awareness programmes. (Table 4.57)

There existed a significant difference in pre-test and post-test which confirmed that there was a significant difference in behavior of non-Muslim girls of middle SES group. (Table 4.58)

The difference in pre-test and post-test confirmed that there existed a significant difference in attitude behaviour of non-Muslim girls of high SES group. (Table 4.59 & 4.60)

**Suggestion for further Studies:**

As stated earlier, the present investigation has selected attitude and behaviour of students of secondary level of education as the main variables of study. The present study may serve as a threshold for further studies considering different aspects related to the problem.

The investigator would like to submit her humble suggestions in the light of her experiences and the results of present study.

1. While analyzing the attitude and behaviour of secondary school children, many other variables like parental education, personality,
family background etc. which were outside the purview of the present investigation. Therefore, the investigator suggests that future researchers in this area may take into account the above mentioned variables, which are not touched in this research.

2. In this study, the researcher has selected secondary school children as sample. The investigator suggests that the future researcher in this area may include students of other levels of education also like senior secondary and college level, etc.

3. Use of other advanced techniques like multiple correlation and multiple regression to study more variables in the present research work would surely improve the results and would prove to be more fruitful.

4. While conducting the research work it was noticed by the investigator that studies on environmental behaviour were very few. To study the behaviour of students regarding environment may prove to be worthwhile for future researchers.

5. This study may be replicated on a large sample of students in various disciplines and levels of education in order to cover a large population.
6. As there was no suitable tool available for studying the environmental behaviour of secondary school students, the investigator herself has constructed the desired scale which may contain sampling error, statistical error and other limitations like not covering all the issues related to environmental behaviour. Any further researcher, therefore, must take into account these factors.

**Educational Implications:**

The research study is worthy only if its findings can be used to solve problems at personal as well as educational level.

The study has come out with several interesting findings as already listed in the previous chapters. Although the investigator does not claim to have made an exhaustive study of the problem in question, yet is emphasized that various aspects of the problem have been examined as extremely and deeply as possible. The findings of this study have some important implications for secondary school students as well as for our community. For example, students can learn to save the environment in a better and sound manner if they are asked to implement various environment saving rules in their own lives as well as in their surroundings and be kind to nature for example if students
are given a piece of filed to plant, trees or if students are asked to start a project of keeping school clean, etc. These measures would not only affect the attitude but also the behaviour of secondary school students.

The results of this study also suggest that sound environmental attitude and behaviour may be inculcated in the secondary school students through suitable course content, methodology, practical exercises and various co-curricular activities. There should be a graded part of syllabus in the secondary schools related to environment and its problems and this knowledge should be reinforced through various practical modes of learning and co-curricular activities such as debate, social work, group participation, etc.

Conduction of cultural programmes which may show cases the importance of environment and the need of saving it. In our education system, the knowledge provided to students is mostly classroom based and a practical and active approach is almost negligible most of the institutions are only course oriented. The tendency of today's society to be very much dependent on scientific gadgets and discovers is yet another reason for not only the deterioration of environment but also to make them totally ignorant towards saving the environment. They develop an unsound environmental behaviour which obviously
descends in the secondary school children from their parent and home atmosphere.

This study proves that the secondary school students possess a certain level of environmental attitude and behaviour which can be enhanced by a cumulative affect of both the school and of parent themselves.

More efforts on part of administrators, parents and teachers are needed to enhance positive behaviour of students towards their environment, therefore, environmental education should compulsorily be included in syllabi of Secondary school if one wants to develop an environmentally sound society and a better environment for the future.