SUMMARY

TITLE: “ENVIRONMENTAL AWARENESS AND ATTITUDE TOWARDS ENVIRONMENTAL EDUCATION AMONG THE UNDERGRADUATE AND POSTGRADUATE STUDENTS IN ARUNACHAL PRADESH.”

Introduction.

People in general are getting acquainted with the term Environment in recent times since it is getting affected and deteriorated rapidly on account of excessive and undesirable human activities. The concept of environment includes all the living and non-living organisms which we find in our surroundings like plants, animals, lands, water, air, etc. All these elements of environment are deteriorating continuously for the last three decades because of rapid growth of population and modernization of human activities on this planet earth.

The physical facilities of the earth that facilitates life and life systems, took millions of years to reach the present state through natural process. The foundation of civilizations marked the beginning of damages caused to both these systems since it required the natural resources as an input for its growth and development. The industrial revolution of the modern period caused irreversible damage to the system although it brought comfort and employment to the masses. The rapid growth of human population aggravated the problem, increased the demand on nature many folds, which in turn threatens the very existence of life.

Urbanization is a great threat to environment as it increases the percentage of paved impervious land within the urban settlements. The intensified run off pattern of urbanized area can cause soil erosion, especially where natural vegetation cover has been removed during the construction causing degradation in the land surface and environment. In this regard even old cities are not safe; the heavy population concentration in high density residential areas makes use of resources and facilities excessively which affects the environmental conditions adversely. There is no denying the fact that
urbanization and industrialization play a key role in economic development of any society but the society does not remain safe from its side effects and as a result the environmental elements like air water land etc, get polluted. The central pollution board's document (1988-89) indicated that the maximum pollution load is found in the Indian cities like, Delhi, Bombay, Calcutta, Hyderabad, Bangalore, Madras and Kanpur. The MIC gas leak in Bhopal (1984) has been regarded the worst industrial accident which is related to our subject of pollution where around 2, 00, 000 residents of Bhopal were affected by the leakage of poisonous gas from the Union Carbide factory. Along with the human beings, plants and animal life were all damaged over the areas of 3.5 sq.Km around the union carbide factory in Bhopal.

Air pollution is causing the drastic climatic changes all over the world and Green House Effect needs to be stated here. The main sources of Green House gases (CO2, CFCs CH4, SO2) are burning up fossil fuels and vegetation. The burning of fossil fuels and vegetation is prevalent in Arunachal Pradesh, which is a serious threat to the natural environment. Green house Effect causes the global warming and this global warming leads to the sinking of islands and deltas. It is estimated that one meter rise in the sea level would make 200 million people homeless. Simultaneously, depletion of Ozone layer, acid rains, deforestation, desertification, soil erosion and soil pollution, noise pollution, etc. are the various types of environmental problems because of which the whole world is serious about the present day situation of the environmental issues are being taken up and discussed seriously by the various intellectual and academic bodies.

5.1 Conceptual Framework of Environmental Education:

Environmental education is a new area of study in the discipline of education with recent developments and advancements. Environmental education is virtually a new source of concern for teachers, educator and
students. Until the 19th century the necessity for the knowledge on environment, awareness and education was not felt. The natural disasters that followed soon after the industrial revolution in England and man made disasters like the first and second world wars and the atomic onslaught on Japan followed by series of atomic tests conducted by countries after the war and the Bhopal gas-tragedy served as an eye opener to the scientists, policy makers and the social activists.

Many have now recognized the value of environmental education. It is an integrated process which deals with man's inter-relationship with his natural and man-made surroundings, including the relation of population growth, pollution, resource allocation and depletion, conservation, technology for urban and rural planning to the human environment. Environmental education is a study of factors influencing eco-systems, mental and physical growth, living and working condition, decaying cities and population pressures.1

Environmental education has been defined in a number of ways. The Nevada conference of the international union for the conservation of nature and national resources held in the year 1970, defined that, "Environmental education is the process of recognizing values and clarifying concepts in order to develop skills and attitudes necessary to understand and appreciate the interrelatedness among man, his culture and his biophysical surroundings. Environmental education entails practices in decision-making and self-formulation of code of behaviour about issues concerning environmental quality."2

The concept formulated in the United States environmental education act, 1970 reflected similar views of Nevada conference. "Environmental education means the educational process dealing with man's relationship with his natural and man-made surroundings, and includes the relation of population, pollution,

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1 Encyclopedia of Environmental Education-P-34
2 CEE, Environmental Education for youth (Ahmedabad CEE), P-7
resource allocation and depletion, conservation, transportation, technology, and urban and rural planning to the total human environment.  

Objectives of Environmental Education:

The first intergovernmental conference on environmental education, held in Tbilisi, of former USSR, in the year 1977, was organized by UNSECO facilitated the formulation of objectives of Environmental education for both formal and non-formal education at all levels as given below;  

(1) Awareness: To help individuals and social groups acquire an awareness of and sensitivity to the total environment and its allied problems.

(2) Knowledge: to help individuals and social groups acquire basic understanding of the total environment, its associated problems and humanity’s critically responsible presence and role in it.

(3) Attitude: to help individuals and social groups acquire social values, strong feelings of concern for the environment and the motivation for activity participating in its protection and improvement.

(4) Skill to help individuals and social groups acquire the skills for solving environmental problems.

(5) Evaluation ability: to help individuals and social groups evaluate environmental measures and education programme in terms of ecological, political, economic, social, aesthetic and educational factors.

(6) Participation: to help individuals and social groups develop a sense of responsibility and urgency regarding environmental problems, to ensure appreciate action to solve these problems.

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1 Encyclopedia of Environmental Education-1, P-18
3 Encyclopedia of Environmental Education-1, PP. 111-112
5.2 Rationale of the Study:

It is understood that environmental education (EE) is mostly considered as a process to generate awareness, knowledge and understanding about the environment, positive attitude towards it, and commitment to protect and improve it. Womersley and Stokes (1981) included awareness in the objectives of Environmental Education which refers to foster awareness of and concern about economic, social, political and ecological interdependence in urban and rural areas. Keep Britain Tidy Group (DBTG) has emphasized on the environmental awareness and language development. Rajput et al (1980) referred the aim of Environmental education as to develop empathetic relationship with various members of community and understanding their role and importance.

Another important objective of environmental education is to develop the positive attitudes westwards environment, which plays a vital role. In the protection of environment, there are some significant works and studies relating to environmental education like Bakshi and Naveh (1980), Martin and Wheeler (1975), Roth (1976), Rajput and Saxena (1983), UNESCO (1977, 1981). By looking into these works and studies it has been found that none of the study was done by any scholar on the population of Arunachal Pradesh concerning to the environmental awareness and attitudes.

Although the Western Ghats and the North eastern region of the Himalayan Mountains enlisted as one of the most important bio diversity hot spots in the world, no such research studies has so far been conducted in Arunachal Pradesh because of its inaccessibility and other related problems. Therefore, the investigator took the following study in hand:

5.3 STATEMENT OF THE PROBLEM:

“ENVIRONMENTAL AWARENESS’ AND ATTITUDE TOWARDS ENVIRONMENTAL EDUCATION AMONG THE UNDERGRADUATE AND POSTGRADUATE STUDENTS IN ARUNACHAL PRADESH”
5.4 OBJECTIVES OF THE STUDY:

The main objectives of the present research study are as under:

1. To assess and compare the environmental awareness and attitude among the UG and PG students of Arunachal Pradesh.
2. To study the influence of sex, academic achievement, race and their interactions on the environmental awareness and attitude of UG and PG students of Arunachal Pradesh.
3. To study the influence of discipline and their interactions on environmental awareness and attitude of the UG and PG students of Arunachal Pradesh.
4. To study the influence of Socio Economic Status, Settlement, and their interactions on environmental awareness and attitude of the UG and PG students of Arunachal Pradesh.

5.5 HYPOTHESES OF THE STUDY:

In view of the objectives of the study, the following hypotheses have been formulated.

1. There will be no significant difference in environmental awareness and attitude of UG and PG students of Arunachal Pradesh.
2. There will be no significant influence of sex, academic achievement, race and their interactions on environmental awareness and attitude of the UG and PG students of Arunachal Pradesh.
3. There will be no significant influence of discipline and their interactions on environmental awareness and attitude of the people of Arunachal Pradesh.
4. There will be no significant influence of socio-economic status, settlement, and their interactions on environmental awareness and attitude of the UG and PG students of Arunachal Pradesh.

5.6 DELIMITATIONS:

The present study has been delimited to –

1. Under Graduate and Post Graduate students of Arunachal Pradesh.
2. Environmental awareness and attitude towards environment and environmental education.
3. The variables like Sex, Achievement, Race, Discipline, SES, and Settlement.
4. High and low levels of cognitive and non-cognitive variables.

5.7 OPERATIONAL TERMS:

(1) Undergraduate Students: The students who are studying B.A, B.Sc, B.Com in colleges.

(2) Post Graduate Students: The students who are studying M.A., M.Sc, and M.Com in the Rajiv Gandhi University.

(3) Environmental Education Awareness: Knowledge of students and teachers environment related issues and educating the people about the rapid growth of environmental problems and its consequences.

(4) Attitude: Tendency of undergraduate and postgraduate students to react favourably and unfavourably towards environmental education. It is represented by the scores obtained by sample students on the attitude scale toward environmental education.

(5) Cognitive Variables: These are three variables, which are related to the mental faculties like intelligence, and academic achievement.

Academic Achievement:
It is defined as the cumulative scores of various curricular tests obtained in the previous Annual and Semester Examinations.

(6) **Non-Cognitive Variables**: These are the variables, which are not related to mental faculties such as sex, race, socio-economic status, etc.

(a) **Sex**: It refers to the male and female students of undergraduate and post graduate level.

(b) **Race**: Race means each of the major division of human kind having distinct physical characteristics or a tribe; the researcher used two categories of students i.e. general category and scheduled tribe.

(c) **Socio-economic Status**: It refers to the social and economic factors, which are educationally, and psychologically the most important of the students. It represent by the scores obtained on the socio-economic status scale developed by the researcher.

5.8 **METHODOLOGY**:

In view of the objectives of the present study, the researcher has adopted the Normative Survey Method of educational research. The details are as under:

(i) **Population and Sample**: It is accepted by all the researchers, experts and educationists that the investigator is unable to collect the data from total population of the chosen area. A population refers to any collection of specified group of human beings or non-human entities such as objects, educational institutions, time units, geographical areas, individual, etc. It means the term "Population" is concerned with the total number of that aspect relating to which the investigation is conducted and informations are collected. But it is not possible to collect the information or data from the whole population. Therefore a sample is selected from the total population for investigation purpose. The process of selecting the true representative is termed as sampling. In the present study, a sample was selected from College and university students of Arunachal Pradesh. A
A sample of 304 undergraduate students and 304 postgraduate students were selected by adopting the random sampling technique. Further, the researcher ensured equal representation for male and female, tribal and non-tribal and the discipline out of the total sample of 608 students.

(ii) **Tools Used:** The researcher has used the following tools:

(a) Environmental Education Awareness Test for undergraduate and postgraduate students - developed by the investigator.

(b) Environmental Attitude Scale for undergraduate and postgraduate Students - developed by the investigator.

(c) Socio-economic Status Scale for Teachers and Students – developed by Kuppu Swami with some modifications.

(iii) **Procedure of the Data Collection:** The investigator personally visited the selected educational institution for collection of data from 304 undergraduate and 304 postgraduate students. The tests and scales were administered on 304 undergraduates and 304 postgraduate students of Deranatung Government college and Jawaharlal Nehru government college and the Rajiv Gandhi University by providing the necessary instructions relating to each tool of this piece of research work to get their free, frank, honest and original opinions without any influence or inhibition. While administering the tools, the investigator was physically present throughout the answering session.

5.9 **Analysis of Data:**

For analysis and computation of results, the researcher used 'Three Way Analysis of Variance' as the statistical technique to investigate the influences and interactions of cognitive and non-cognitive variables. In addition to 'Three Way Analysis of Variance,' the researcher used measures of central tendency for computing the mean scores of environmental awareness and attitude tests of the undergraduate and postgraduate students of Arunachal Pradesh and the mean scores of their attitude towards environmental education.
5.10 FINDINGS AND DISCUSSIONS:

The main findings of the study are described and discussed as under:

(i) The researcher developed and used the Environmental Education Awareness Test, consisting of 30 items for assessing the Environment and environmental education awareness among the undergraduate and postgraduate students of Arunachal Pradesh. The environmental education awareness scores of 608 students were tabulated. The maximum marks of the test were 150. It means the environmental education awareness mean score of the test may range from zero (0.0) to 150 marks.

(ii) Secondly, the researcher developed and used Attitude Scale to measure the attitude of the undergraduate and postgraduate students towards environmental education. The attitude scale contained 30 items relating to environment and environmental education. As per the weightage to responses against each statement, the minimum and maximum attitude score of any student comes out to be zero (30 x 0 = 0) and (30 x 5 = 150) respectively.

(iii) The environmental awareness scores of 608 students were used for computing the environmental education awareness mean scores of students. The maximum marks of this test were 150. It means the environmental education awareness mean scores of the test may range from zero (0.0) to 150 marks and the mean scores of this test are 88.32. But the overall mean scores of 608 students is almost equal to the mean scores of the test. It means the students are having an average amount of environment and environmental education awareness.

(iv) Fourthly, the researcher developed and used attitude scale to measure attitude of students towards population education. The attitude scale contained 30 items relating to environment and environmental education. As per the weightage to responses against each statement, the minimum
and maximum attitude score of any student comes out to be zero (30x0 = 0) and 150 (30x5 = 150) respectively. The mean scores of under graduate students came out to be 127.27 whereas the mean scores of this attitude scale is 123.73. It shows that the Undergraduate and post Graduate students has quite favourable attitude towards environment and environmental education.

(A). The main findings of Environmental Education Awareness of Undergraduates relating to Discipline, Socio economic status and Academic Achievement are as under:

(1) Table: V – 9. Show that the computed F value came out to be 5.65 regarding the Discipline variables where as the table F value is 3.98 for 1/72 d.f at .05 levels. Since the obtained F value (5.65) is greater than the table value 3.98 it is concluded that the mean scores of Environmental education awareness of students belonging to the disciplines of science and humanities differ significantly. In view of this, the hypothesis is rejected and interpreted that the variable Discipline influences the environmental education awareness among the undergraduate students.

(2) It is indicated in table: V – 9. that the obtained F value is 3.69 regarding the variables of socio economic status which is less than the table ‘F’ value (6.98) for 1/72 d.f. at .05 level. It means the mean scores of environmental education awareness of undergraduate students of high and low socio economic status do not differ significantly. Therefore the hypothesis has been retained and interpreted that the variable socio economic status does not influence the environmental awareness of undergraduate students.

(3) The table: V – 9 reveals that the computed ‘F’ value was found 5.23 relating to the variable Achievement which is greater than the table ‘F’ value (3.98) for 1/72 d.f. at .05 level of confidence. It means the environmental education awareness mean score of undergraduate students belonging to the category of high and low levels of achievement
differ significantly. Therefore the hypothesis is rejected and interpreted that the achievement as one of the variable that influences the environmental education awareness among the undergraduate students.

(4) Further the table: V – 9 indicates that the obtained ‘F’ values of interactions between Discipline and Socio economic status, socio economic status and achievement, discipline and achievement were found 4.05, 0.41 and 2.14 respectively, which are less than the criterion ‘F’ value (3.98) for 1/72 d.f. at .05 level except the obtained ‘F’ value 4.05 regarding the interaction between Discipline and Socio economic status. It means the interactions of Discipline and socio economic status influences the environmental education awareness scores of undergraduate students and in rest of the cases it does not influence.

(B) The main findings of Environmental Education Attitude of Undergraduates relating to Discipline, Socio economic status and Academic Achievement are as under

(i) The table V – 10 reveals that the computed ‘F’ value was found 1.00 relating to the discipline variable, which is, lesser than the table ‘F’ value (3.98) for 1/72 d.f. at .05 level of confidence. It means the mean scores of attitude towards environmental education among the students belonging to science and humanities groups do not differ significantly. The hypothesis is retained and interpreted that the discipline as one of the variable does not influence the attitude among undergraduate students.

(ii) It is indicated in table: V – 10 that the obtained ‘F’ value is 0.93 regarding the socio economic status variable, which is lesser than the table ‘F’ value (3.98) for 1/72 d.f. at .05 level. It means the mean scores of attitude of high and low levels of socio economic status category students do not differ significantly. Therefore, the hypothesis has been retained and interpreted that socio economic status does not influence the attitude scores towards environmental education among undergraduate students of Arunachal Pradesh.
(iii) Table V - 10 shows that the computed ‘F’ Value came out to be 3.82 regarding the achievement variable whereas the table ‘F’ value is 3.98 for 1/72 d.f. at .05 level. Here, the obtained ‘F’ value (3.82) is lesser than the table value 3.98. Hence, it is concluded that the mean scores of attitude towards environmental education among high and low achievers do not differ significantly. In view of this, the hypothesis is retained and interpreted that the variable achievement, does not influence the attitude towards environmental education among the undergraduate students.

(iv) Further, the table V - 10 indicates that the obtained ‘F’ values of interactions between discipline and socio-economic status, socio-economic status and achievement, discipline and achievement and interactions among discipline, socio-economic status and achievement were found 0.81, 0.93, 0.00, and 65.41 respectively, which are lesser than the criterion F’ value (3.98) for 1/72 d.f. at .05 level of confidence. Hence, the hypothesis is retained and interpreted that the interaction between variables like discipline and socio-economic status, socio-economic status and achievement, discipline and achievement is not significant except the interaction between socioeconomic status discipline and achievement.

(C) The main findings of Environmental Education Awareness of Post graduates relating to Discipline, Socio economic status and Academic Achievement are as under

(i) The table. V – 11 reveals that the computed ‘F’ value was found 8.48 relating to the variable of discipline, which is, greater than the table ‘F’ value (3.98) for 1/72 d.f. at .05 level of confidence. It means the environmental education awareness mean scores of students belonging to science and humanities disciplines differ significantly. The hypothesis is rejected and interpreted that the disciplines as one of the variable which influence the environmental education awareness among post graduate students of Arunachal Pradesh.
(ii) Table: V – 11 shows that the computed 'F' Value came out to be 16.39 regarding the variable of socio economic status whereas the table 'F' value is 3.98 for 1/72 d.f at .05 level. Here, the obtained 'F' value (16.39) is greater than the table value 3.98. Hence, it is concluded that the mean scores of environmental education awareness of high and low levels of socioeconomic status group students differ significantly. In view of this, the hypothesis is rejected and interpreted that the socio economic status variable influences the environmental education awareness among the post graduate students.

(iii) Table: V – 11 indicates that the obtained 'F' value for the main effect of academic achievement came out to be 5.68, which is greater than the table 'F' value (3.98) for 1/72 d.f. at .05 level of confidence. Hence, the hypothesis is rejected and interpreted that there is significant difference in environmental education awareness mean scores of post graduate students of Arunachal Pradesh belonging to high and low levels of academic achievement.

(iv) The table: V – 11 shows that the obtained 'F' values of interactions between discipline and socio economic status, socio economic status and academic achievement, discipline and academic achievement, and the interactions among discipline, socio economic status and academic achievement were found 3.43, 4.98, 4.01 and 29.00 respectively, which are higher than the table value (3.98) except the obtained 'F' value 3.43 relating to the interactions between discipline and socio economic status. It means the interactions of socio economic status and academic achievement, discipline and academic achievement and the interactions among discipline, socio economic status and achievement influences the environmental education awareness scores of post graduate students and the hypothesis is rejected.
(D) The main findings of Environmental Education Attitude of Post graduates relating to Discipline, Socio economic status and Academic Achievement are as under

(i) The computed F value of the variable discipline came out to be 0.95 as shown in the table: V = 12, which is far below the table value of 3.98. therefore it is concluded that discipline does not influence the environmental attitude of the post graduate students.

(ii) The computed F value of the variable socio economic status was 3.26 at .05 levels for 1/72 d.f. which is less than the table value (3.98) therefore it is concluded that the socio economic status does not influence the environmental attitude among the post graduate students.

(iii) It is indicated that the computed value for the variable Achievement came out to be 0.42 at .05 levels for 1/72 d.f. which is less than the table value 3.98 therefore the hypothesis is retained i.e achievement does not influence the attitude of post graduate students.

(iv) The computed F value for the interaction between discipline and socioeconomic status and socio economic status and achievement was 1.42 and 2.25 respectively, against the table value of 3.98 at .05 level for 1/72 d.f. hence it is concluded that the interaction between discipline and socio economic status and socio economic status and achievement is insignificant.

(v) The computed value of the interaction between discipline and achievement and between discipline socioeconomic status and achievement were 4.31 and 59.36 respectively, at the .05 level for 1/72 degree of freedom. Since the computed value is much higher than the table value of both these interactions it is concluded that the interaction between Discipline and achievement, discipline, socioeconomic status and achievement are significant.

(E) The main findings of Environmental Education Awareness of Under graduates relating to Settlement Sex and Race are as under.
(i) Table: V – 13 shows that the computed F value of the variable settlement was 0.11 which is lesser than the table value 3.94 at .05 levels for 1/112 d.f. therefore it is concluded that settlement does not influence the environmental awareness of the undergraduate students and the null hypothesis is retained.

(ii) The computed ‘F’ value of Sex stood at 4.12 which is higher than the table value 9.34 at the .05 level in 1/112 degree of freedom. Therefore it is interpreted that the variable Sex influences the environmental awareness of undergraduate students and the null hypothesis is rejected.

(iii) The computed ‘F’ value of Race came out to be 0.24 for 1/112 d.f. at .05 level as against the table value of 3.94 which is higher than that of the computed value therefore it is concluded that sex has no influence on the environmental awareness of undergraduate sample students. the null hypothesis is retained.

(iv) The computed ‘F’ value of the interaction between variables like settlement and sex, settlement and race, race and sex came out to be 0.84, 0.24 and 0.00. all of these computed values were far below than that of the table value 3.94 for 1/112 degree of freedom at .05 level therefore the interaction between sex and settlement, settlement and race, race and sex is not significant and the interactions between these variables has no influence over the environmental awareness of the under graduate sample students.

(v) Furthermore the computed ‘F’ value of interaction between the variables settlement, race and sex came out to be 106.41 at .05 level for 1/112 degree of freedom therefore it is concluded that the interaction between these variables are found significant and the combination of these variables does influence the environmental awareness of the undergraduate sample students.

(F) The main findings of Environmental Education Attitude of under graduates relating to Settlement Sex and Race are as under
(i) The computed 'F' value of the variable settlement (table V - 14) came out to be 0.00 as against the table value of 3.94 at .05 level of significance for 1/112 degree of freedom. Since the computed value is far below than that of the table value it is concluded that settlement has not influence on the environmental attitude of undergraduate sample students. the attitude of rural and urban students on the environment and environmental education does not differ. Therefore the null hypothesis is retained

(ii) The computed 'f' value of the variable sex came out to be 0.89 Table - indicates that the obtained 'F' value for the main effect of the variable sex came out to be 0.89, which is lesser than the table 'F' value (3.94) for 1/112 d.f. at .05 level of confidence. Hence, the hypothesis is retained and interpreted that there is no significant difference in environmental education attitude mean scores of undergraduate students of Arunachal Pradesh belonging to the category of male and female

(iii) The table: V - 14 reveals that the obtained (computed) F-value came out to be 4.35 whereas the table value of 'F' for 1/112 d.f. at .05 level of confidence is 3.94, which is lesser than the computed 'F' value (4.35). Therefore, it is concluded that the mean of scores of environmental education attitude of tribal and general category of students differ significantly and the hypothesis is rejected as race influences the scores of environmental education attitude of undergraduate students of Arunachal Pradesh.

(iv) The table: V - 14 shows that the obtained 'F' values of interactions between the variables like, settlement and sex, settlement and race, race and sex, and the interactions among settlement race and sex were found out to be 0.89, 2.01, 0.43 and 103.40 respectively, which are lesser than the table value (3.94) in view of the .05 level of confidence for 1/112 d.f. except the interaction between settlement race and sex. Hence, the hypothesis is retained and interpreted that the variables like settlement;
sex, and race do not influence the environmental education attitude mean scores of undergraduate students of Arunachal Pradesh.

(G) The main findings of Environmental Education Awareness of undergraduates relating to Settlement Sex and Race are as under

(i) It is indicated in table: V – 15 that the obtained ‘F’ value is 3.79 regarding the variable settlement, which is lesser than the table ‘F’ value (3.94) for 1/112 d.f. at .05 level. It means the mean scores of environment education awareness of rural and urban students do not differ significantly. Therefore, the hypothesis has been retained and interpreted that the variable settlement does not influence the environmental education awareness scores of post graduate students.

(ii) The table. V – 15 reveals that the obtained (computed) ‘F’ value came out to be 14.51 whereas the table value of ‘F’ for 1/112 d.f. at .05 level of confidence is 3.94, which is lesser than the computed ‘F’ value (14.51). Therefore, it is concluded that the mean of scores of environmental education awareness of male and female students differ significantly and the hypothesis is rejected as sex influences the scores of environmental education awareness of post graduate students.

(iii) As the table value of ‘F’ for 1/112 d.f. is 3.94 at 05 level of confidence is lesser than the obtained ‘F’ value 30.27 relating to the variable, race. Hence, it is interpreted that the mean scores of environmental education awareness of tribal and general category of post graduate students differ significantly, which means that race as a variable influences the environmental education awareness scores of students and the hypothesis is rejected.

(iv) The table: V – 15 shows that the obtained ‘F’ values of interactions between settlement and sex, settlement and race, race and sex, and the interactions among settlement, race and sex were found 3.62, 47.01, 0.76 and 4.2 respectively, in which the computed value of
interaction between settlement and sex and race and sex are lesser than the table value (3.94) except the obtained ‘F’ values 47.01 and 4.02 relating to the interactions between settlement and race and settlement race and sex. It means the interactions of settlement and sex and the race and sex do not influence the environmental education awareness scores of post graduate students and in rest of the cases it influences.

**H** The main findings of Environmental Education Awareness of post graduates relating to Settlement Sex and Race are as under

(i) The table: V - 16 reveals that the obtained (computed) ‘F’ value came out to be 0.68 whereas the table value of ‘F’ for 1/112 d.f. at .05 level of confidence is 3.94, which is greater than the computed ‘F’ value. Therefore, it is concluded that the mean of scores of attitude towards environment education among rural and urban groups of post graduate students do not differ significantly and the hypothesis is retained and interpreted that settlement does not influence the scores of attitude towards environment education among post graduate students.

(ii) As the table value of ‘F’ for 1/112 d.f. is 3.94 at .05 level of confidence and the obtained ‘F’ value is 3.27 relating to sex variable which is lesser than the table value (3.94). Hence, it is interpreted that the mean scores of attitude of male and female groups of post graduate students do not differ significantly, which means that sex as a variable does not influence the attitude scores towards environmental education among the post graduate students and the hypothesis is retained.

(iii) The computed ‘F’ Value came out to be 17.88 regarding the variable, race. Whereas the table ‘F’ value is 3.94 for 1/112 d.f at .05 level. Here, the obtained ‘F’ value (17.88) is greater than the table value 3.94. Hence, it is concluded that the mean scores of attitude of tribal and general category of students differ significantly. In view of this, the hypothesis is rejected and interpreted that the race variable influences the attitude towards environmental education among the post graduate students.
(iv) Further, the table: V – 16 indicates that the obtained 'F' values of interactions between settlement and sex, settlement and race, race and sex and interactions among settlement, sex and race were found 0.45, 0.00, 0.04 and 89.64 respectively, which are lesser than the criterion F' value (3.94) for 1/112 d.f at 0.05 level except the obtained 'F' value 89.64 relating to the interaction between settlement, sex and race. It means the interactions of race, sex and settlement influences the attitude towards environmental education scores of post graduate students and in rest of the cases it does not influence.

5.11 Educational Implications of the Study:

The present study is immensely educative in nature as it covers an important segment of education, i.e. environment and environmental education awareness. Some of the important educational implications of this study have been put as under:

1) First, environment and environmental education is an important area of study because of rapid growth of pollutants on environment because of un desirable human activities. Therefore, the present study is a great input in gearing up the environmental education programmes in India.

2) Second, the plans and programmes of environmental education have been prepared and are being prepared in which the present study may be considered as an eye-opener for the planners and administrators.

3) Third, the environmental education refers to the bio-physical properties of the earth and its interactions, the addition of unwanted substances and its impact and the quality of life. The study enables the teachers and students to develop awareness of the condition of life on earth.

4) Fourth, the present study is of great use in Environmental Education Resource Centres (PERC) as it provides sufficient feed back.

5) Fifth, this study is very educative in the development of environmental education curriculum for different stages of education.
6) Sixth, the study is quite educative for the undergraduate and postgraduate students

5.12 SUGGESTIONS FOR FURTHER STUDIES:

The researcher completed the present study with every care and after the completion of this piece of research work, the researcher felt to suggest some studies further. The suggestions for further studies are put as under:

(1) First, the researcher suggests that such type of study needs to be conducted in the school level of the state
(2) Second, it is suggested that the comparative study on environment and environmental education awareness may be conducted by taking some colleges and universities of Assam and Arunachal Pradesh states
(3) Third, the present study has considered the undergraduate and postgraduate students but there is further scope to conduct such study on college and university teachers and school students and teachers too.
(4) Fourth, further it is also suggested that the study may be conducted by involving some of the other variables like anxiety, personality traits, self-concept, etc.
(5) Fifth, the study may be conducted on the development of curriculum and teaching-learning material on environmental education.
(6) Sixth, the researcher suggests that any of the study is possible to be conducted on the approaches of teaching of environmental education
(7) Seventh, an effectiveness of Environmental Education Resource Centres (EERC) may also be taken up for further study