

COMPARATIVE STUDY OF ENVIRONMENTAL AWARENESS OF DIFFERENT LEVEL TEACHERS

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Abstract: This merciless and senseless plundering of natural resources, over production at large scale, continuous marketing and advertising for forced and over consumption, emission of various toxic and polluting agents have finally brought the humanity to the point where we all are commonly bound either to choose the option of accepting immediate environmental sustenance measures of development or to be ready to face total collapse of ecological system and of humanity, at the same time. It is our common humane responsibility to understand the environmental issues, we environmentally aware and to behave sustainably so that coming infinite generations of mankind on this earth could find essential natural resources like air, water, productive and fertile soil, peaceful and healthy environment, enough food, good social and cultural traditions, range of variety of flora and fauna and environment free of radiation and toxic agents and pollution free environment. Today we everywhere find pollution and people suffering from serious diseases due to pollution. The primary teachers, TGTs, PGTs, pupil teachers and trainee teacher educators who are important stake holders of present and future of the nation are highly environment aware. The pupil teachers and trainee teacher educators should be made more environmentally aware. The results of the study are implacable in educational planning, management, development of curriculum of pedagogy of environmental awareness elementary, secondary and teacher training programmes.

Keyword: Environmental Awareness, Primary and Secondary School Teachers, Trainee Teachers and Teacher Educators.

INTRODUCTION:

Each and every nation is facing some sort of environmental problems, now a days. The environment-pivot of life on planet Earth, is suffering seriously due to the greed and misbehavior of man on Earth. History of modern world has witnessed the blind search for big markets and that of raw material which have resulted ultimately into emergence of brutal colonialism, capitalism, materialism, industrialization and ruthless consumerism under umbrella concepts of industrial development and westernization. Industrialization and consumerism have further given way to exploitation, discrimination and plundering of natural resources of the environment particularly in colonized nations. Continuous misbehave with environmental and plundering of environmental resources has now culminated into fatal disturbances in the ecology of the planet, earth. This merciless and senseless plundering of natural resources, over production at large scale, continuous marketing and advertising for forced and over consumption, emission of various toxic and polluting agents have finally brought the humanity to the point where we all are commonly bound either to choose the option of accepting immediate environmental sustenance measures of development or to be ready to face total collapse of ecological system and of humanity, at the same time. Condition of environmental pollution is that we all have polluted out our total available quantity of potable water, air and soil and have deforested the

earth, disturbed the biodiversity and wild life cycle and socio-cultural environment unto alarming level. Human inventions have given birth to radioactive pollutions which are affecting not only our present but also are threat to future generations. Today, every part of the world has realized the alarming situation of environment. Many environmentalists have shown their concern which has revealed the fact that the danger to the environment will bring many unimagined problems in front of human if the exploitation of natural resource done over We should understand that man has already crossed the borderline of sensible consumption of environmental natural resources. So, it is high time for all of us to immediately proceed to protection of environment and to inculcate environmental awareness among children and youths worldwide.

Today, the concept of 'Environment' is intelligible to common people. It comprises of all things which directly or indirectly affect any or all living organism. Environment includes all elements, factors and conditions that have some impact on growth, development, life and living of plants, organisms and micro-organisms. It has been discovered from the bio-chemical cycles and geological scales that a harmony has been created by nature between various components of the earth which may be living or non-living. The existence of man on this earth is due to the environment in which he lives but today due to human misdeeds it has entered into the phase of destroy. Owing to these problems, the government has

initiated many programmes for protecting the environment but government efforts are not sufficient. It is the first duty of every citizen to be aware and responsible for his/her environment. Environmental awareness stands for proper knowledge of environment and its problems towards which every individual should be aware of it. Environmental issues in India include various natural hazards, particularly cyclones and annual monsoon floods. A large number of Indian rivers are severely polluted as a result of discharge of domestic sewage. Environmental awareness implies to acquire the knowledge about the problems related to the environment from any individual to social group. It has been a great opportunity in country like India because of lack of required scientific approaches and proper knowledge among people. Environment is not only associates with water, air, sound and everything which is used in our life but also has close relation with the areas like eradication of disease, protection of forests, saving wild life and saving the earth. Today environmental pollution has become a matter of global concern. It is our common humane responsibility to understand the environmental issues, we environmentally aware and to behave sustainably so that coming infinite generations of mankind on this earth could find essential natural resources like air, water, productive and fertile soil, peaceful and healthy environment, enough food, good social and cultural traditions, range of variety of flora and fauna and environment free of radiation and toxic agents and pollution free environment. This could be achieved only when every individual belonging to any field will be aware.

India is a big country with great socio- cultural variety, huge population, poverty, mass unemployment and lack of quality education. Government of India hand in hands with provincial governments and non-government organizations is struggling to eradicate poverty, create employments, environmental awareness and overall improvement in system of education. These attempts of improving education, spreading environmental awareness among the huge population of India depends for success largely on her teachers, teacher educators and to be teachers at all levels of education.

NEED AND SIGNIFICANCE:

Development of environmental awareness is possible through formal environmental education and good teachers. Good teachers to impart environmental education also entail practice in decision making and self-formulation of a code of behaviour about issues concerning environmental quality (Srivastava, 2002). Many studies reveal good effects of environmental education on students. Significant differences were found between teachers with respect to their subject specialization. Science teachers had greater educational awareness than both social science and language teachers and social science teachers had greater awareness than language teachers (Dhillon and Sandhu, 2005). No difference in environmental awareness and action are found due to gender and academic performance (Sengupta, 2005). Secondary school urban male students are better on environmental awareness than their rural counterparts (Abraham & Arjun, 2005). The goal of environmental education is to develop a world population

that is aware of, and concerned about, the environment and its associated problems, and which has the knowledge, skills, attitudes, motivation and commitment to work individually and collectively towards solutions of current problems and the preventions of new ones (Reddy and Reddy, 2007). Environmental education positively affects the students' attitude regarding environmental pollution and related problems (Kumar & Patil, 2007). Gender did not show effect on attitude towards Environment and environmental changes (Jyotirmai, 2011). There is significant difference in environmental awareness of students of textile engineering and management (Kumar & Kumari, 2013). Teachers, teacher educators and trainee teachers are nation builders of tomorrow and they will shoulder the responsibility of imparting environmental education and creating environmental awareness among the students and community members. Teacher educators prepare teachers for teaching students environmental awareness. They equip their trainees with latest knowledge, skills of communication in classes and effective, interactive, cooperative and learner centered pedagogies. They all play their most important role in providing student's freedom to learn, discuss and work on environmental issues in classrooms and providing students with conducive environment for creating environmental awareness within and outside the classrooms of schools and colleges and at community forums, also. But just like the fact that a lamp can lit another lamp only while it is burning itself. Similarly the teachers, pupil teachers, trainee teacher educators can do better for environmental awareness if they themselves have proper environmental awareness. After completing their courses, these trainees can teach, train and handle the education of youths and masses to impart knowledge, develop proper attitude and awareness on various issues related to environment, its protection and sustenance. This could only possible when these trainees themselves are aware of environmental issues, hazards, protection skills, methods of conservation of environment and proper environmental awareness. This study has been conducted with this rationale.

OBJECTIVES:

The objectives of the study are as follows;

- 1.To compare Environmental Awareness of Primary Teachers and Trained Graduate Teachers.
- 2.To compare Environmental Awareness of Primary Teachers and Post Graduate Teachers.
- 3.To compare Environmental Awareness of Primary Teachers and Pupil Teachers.
- 4.To compare Environmental Awareness of Primary Teachers and Trainee Teachers Educators.

HYPOTHYSES:

Following are the hypotheses of the study;

- 1.There is difference in Environmental Awareness of Primary Teachers and Trained Graduate Teachers.
- 2.There is difference in Environmental Awareness of Primary Teachers and Post Graduate Teachers.
- 3.There is difference in Environmental Awareness of Primary Teachers and Pupil Teachers.
- 4.There is difference in Environmental Awareness of

Primary Teachers and Trainee Teacher Educators.

METHOD OF RESEARCH:

The study has been conducted through Normative Survey Method under Descriptive Method of Research.

POPULATION:

Teachers of state government aided primary schools, lower secondary schools and higher secondary schools of Gorakhpur city and pupil teachers and trainee teacher educators enrolled in Bachelor of Education (B. Ed) and Master of Education (M. Ed.) programmes, respectively, of DDU Gorakhpur University campus and affiliated, government aided colleges of Gorakhpur city have constituted the population of this study.

SAMPLING AND SAMPLE:

Sampling for the study was done through Stratified Random Cluster Sampling Method. Teachers, each from primary, lower secondary and intermediate schools of Gorakhpur were arranged under each stratum. Every fifth school from these strata based list was randomly (systematically) selected as sample. All teachers of selected schools were sampled as cluster. One section each of B.Ed., M.Ed. students from the population was selected as sample through lottery method. Thus, total Thirty-one primary teachers (PRTs), thirty trained graduate teachers (TGTs), thirty post graduate teachers (PGTs), thirty two pupil teachers (B. Ed. students) and thirty one trainee teacher educators (M. Ed. students) had constituted the final sample of the study.

OPERATIONALIZATION OF TECHNICAL TERMS:

a.Environmental Awareness: Environmental awareness stands for individual teachers' achievement on questions on pollution and its types, causes of population explosion, conservation of soil, forest and air, energy conservation, conservation of human health and conservation of wild- life and animal husbandry and willingness to lead an environmental friendly life.

b.Primary Teachers: Primary Teachers stood for teachers teaching in U. P. Government managed and aided primary schools of Gorakhpur city.

c.Trained Graduate Teachers: Trained Graduate Teachers stood for teachers teaching sixth to tenth class students enrolled in government aided high schools or inter colleges of Gorakhpur city.

d.Post Graduate Teachers: Post Graduate Teachers stood for teachers teaching intermediate class students of government aided intermediate colleges of Gorakhpur city.

e.Pupil Teachers: Students enrolled in Bachelor of Education programme of the university stood for pupil- teachers.

f.Trainee Teacher Educators: Students enrolled in Master of Education programme of the university stood for Trainee Teachers educators.

TOOLS OF DATA COLLECTION:

Environmental Awareness Test for Teachers (EATT) constructed and standardized by Dhawan, (2011) was administered to collect necessary data for the research.

This test covers forests, air, water, sound and soil pollution, cause of population, conservation of energy, wildlife conservation, problems related to environmental issues and population related dimensions of environmental awareness. There are seventy five questions covering seven dimensions of environmental awareness. Split half reliability coefficient of the test was 0.76 and test was with high validity. Each right answer was scored one and each wrong answer was scored zero.

STATISTICAL TECHNIQUES USED:

For data analysis Mean and Standard Deviation of the scores of different groups were calculated and to test the hypotheses, the value of Critical Ratio (CR) was calculated. The hypotheses were tested at 0.05 levels of significance.

SCOPE AND DELIMITATION:

The study has attempted to compare environmental awareness of Primary Teachers, TGTs, PGTs and trainee Teacher Educators. The study is delimited to the study of teachers working in government aided PARISHADIYA schools of and UP Board of Secondary Education affiliated colleges and trainee teacher educators and pupil teachers enrolled in University campus and its affiliated colleges only.

ANALYSIS AND INTERPRETATION OF DATA:

Objective wise interpretation of data has been organised as hereunder. Table: 1 show comparison of Environmental Awareness scores of Primary teachers and trained graduate teachers. It is evident from this table that the mean score of environmental awareness of primary teachers was

Table: 1 Comparison of Environmental Awareness scores of Primary Teachers and Trained Graduate Teachers

Groups	N	Mean	SD	SE _{DM}	CR Value
Primary Teachers	31	51.28	5.38	1.3	4.4*
Trained Graduate Teachers	30	57.00	5.06		

*Significant at 0.05 level of significance.

51.28. And the standard deviation was found to be 5.38 whereas the mean of Trained Graduate Teacher was 57.00 and standard deviation was 5.06. Value of Standard Error of Difference on both Means was 1.3. The value of Critical Ratio- 4.4 was greater than table value (1.98) at 0.05 level of significance. Hence, the hypothesis 'there is difference in Environmental Awareness of Primary Teachers and Trained graduate Teacher' was approved and the alternative hypothesis of no difference was disapproved. It was concluded from analysis of the data that there was a significant difference in environmental awareness of Primary Teachers and trained graduate teachers. Results of the study are on the line of results of previous researches (Dhillon & Sandhu- 2005, Kumar & Kumari- 2013).

Table: 2 show comparison of Environmental Awareness scores of Primary teachers and post graduate

teachers. It is evident from this table that the mean score of environmental awareness of primary teachers was 51.28. And the standard deviation was found to be 5.38 whereas the mean of Post Graduate Teacher was 56.64 and standard deviation was 5.38. Value of Standard Error of Difference on both Means was 1.4. The value of Critical Ratio was found to be 3.8. Calculated value of critical Ratio- 3.8 was greater than table value (1.98) at 0.05 level of significance. Hence, the hypothesis 'there is difference in Environmental Awareness of Primary

Table: 2 Comparison of Environmental Awareness scores of Primary Teachers and Post Graduate Teachers

Groups	N	Mean	SD	SE _{DM}	CR Value
Primary Teachers	31	51.28	5.38	1.4	3.8*
Post Graduate Teachers	30	56.64	5.78		

*Significant at 0.05 level of significance.

Teachers and Post Graduate Teacher' was approved and the alternative hypothesis of no difference was disapproved. It was concluded from analysis of the data that there was a significant difference in environmental awareness of Primary Teachers and post graduate teachers. Results of the study are on the line of results of previous researches (Dhillon & Sandhu- 2005, Kumar & Kumari-2013).

Table: 3 show comparison of Environmental Awareness scores of Primary teachers and pupil teachers. It is evident from this table that the mean score of environmental awareness of primary teachers was 51.28. And the standard deviation was found to be 5.38 whereas the mean of Pupil Teacher was 50.88 and standard deviation was 4.52. Value of Standard Error of Difference on both Means was 1.2.

The value of Critical Ratio was found to be 8.0. As the calculated value of critical Ratio- 8.0 was greater than table value (1.98) at 0.05 level of significance. Hence, the hypothesis 'there is difference in Environmental Awareness of Primary teachers and Pupil teachers' was approved and the alternative hypothesis of no difference was disapproved. It was

Table: 3 Comparison of Environmental Awareness scores of Primary Teacher and Pupil- Teachers

Groups	N	Mean	SD	SE _{DM}	CR Value
Primary Teachers	31	51.28	5.38	1.2	8.0*
Pupil- Teachers	32	60.88	4.52		

*Significant at 0.05 level of significance.

concluded from analysis of the data that there was a significant difference in environmental awareness of Primary Teachers and pupil teachers. Results of the study are on the line of results of previous researches (Abraham & Arjun -2005, Dhillon & Sandhu -2005, Kumar & Patil- 2007, Kumar & Kumari- 2013).

Table: 4 show comparison of Environmental

Awareness scores of Primary teachers and trainee Teacher Educators. It is evident from this table that the mean score of environmental awareness of primary teachers was 51.28. And the standard deviation was found to be 5.38 whereas the mean of trainee Teacher Educators was 58.60 and standard deviation was 5.28. Value of Standard Error of Difference on both Means was 1.3. The value of Critical Ratio was found to be 4.1. As the calculated value of critical Ratio 4.1 was greater than table value (1.98) at 0.05 level of significance. Hence, the hypothesis 'there is difference in Environmental Awareness of Primary teachers and trainee Teacher Educators' was approved and the alternative

Table: 4 Comparison of Environmental Awareness scores of Primary Teachers and Trainee Teacher Educators

Groups	N	Mean	SD	SE _{DM}	CR Value
Primary Teachers	31	51.28	5.38	1.3	4.1*
Trainee Teacher Educators	31	58.60	5.28		

*Significant at 0.05 level of significance.

hypothesis of no difference was disapproved. It was concluded from analysis of the data that there was a significant difference in environmental awareness of Primary Teachers and trainee Teacher Educators. Results of the study are on the line of results of previous researches (Abraham & Arjun -2005, Dhillon & Sandhu -2005, Kumar & Patil- 2007, Kumar & Kumari- 2013).

CONCLUSIONS:

1.The value of Critical Ratio of Environmental Awareness scores of the groups of Primary Teachers and trained graduate teachers was 4.4 which were significant at 0.05 level of significance. Therefore, it was concluded that Primary Teachers and trainee graduate teachers differ significantly on environmental awareness. On the basis of comparison of Mean Scores of both groups, it could be derived that trained graduate teachers were more aware about the environment.

2.The value of Critical Ratio of Environmental Awareness scores of the groups of Primary Teachers and post graduate teachers was 3.8 which were significant at 0.05 level of significance. Therefore, it was concluded that Primary Teachers and post graduate teachers differ significantly on environmental awareness. On the basis of comparison of Mean Scores of both groups, it could be derived that post graduate teachers were more aware about the environment.

3.The value of Critical Ratio of Environmental Awareness scores of the groups of Primary Teachers and pupil teachers was 8.0 which were significant at 0.05 level of significance. Therefore, it was concluded that Primary Teachers and pupil teachers differ significantly on environmental awareness. On the basis of comparison of Mean Scores of both groups, it could be derived that pupil teachers were more aware about the environment.

4.1. The value of Critical Ratio of Environmental Awareness scores of the groups of Primary Teachers and trainee teacher educators was 4.1 which were significant at 0.05 level of

significance. Therefore, it was concluded that Primary Teachers and trainee teacher educators differ significantly on environmental awareness. On the basis of comparison of Mean Scores of both groups, it could be derived that trainee teacher educators were more aware about the environment.

EDUCATIONAL IMPLICATIONS:

The present study carries a specific role in the field of education as the study is related to an importance and urgent area of environment awareness. Today we everywhere find pollution and people suffering from serious diseases due to pollution. The pupil teachers, trainee teacher educators, trained graduate teachers and post graduate teachers who are important stake holders of present and future of the nation are highly environment aware. The pupil teachers and trainee teacher educators should be made more environmentally aware. Trainee managers need more environmental awareness. The results of the study are implacable in educational planning, management, development of curriculum of pedagogy of environmental awareness elementary, secondary and teacher training programmes.

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