



A Comparative Study on the Eco Literacy, Environmental Attitude And Ecological Behavior Among the Postgraduate Students

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Abstract: Eco literacy is about understanding how our activities-including reading and writing-not only impact the earth but fit into the complex web of ecological relationships within which we live. Environmental attitudes are a psychological tendency that is expressed by evaluating perceptions of or beliefs regarding the natural environment. Ecological behavior is a branch of ecology concerned with the relationship between an animal's behavior and the conditions of its environment.

Keywords: Eco literacy, Environmental Attitude and Ecological Behavior.

1. Introduction:

The word ecology was coined by the German Zoologist Ernst Haeckel, who applied the term oekologie to the "relation of the animal both to its organic as well as its inorganic environment."The word comes from the Greek oikos, meaning "household," "home," or "place to live."Thus, ecology deals with the organism and its environment. The Word environment is derived from the French word 'Environ' meaning surroundings.

The environment is our basic life 'support system' and is composed of living beings surroundings physical surroundings and climate conditions. The term environment includes biotic and abiotic entities around us. Biotic refers to the world of living organisms, whereas abiotic refers to the world of living elements. The Environment provides us the basic elements-air, water, food and land which are essential for life to flourish on the earth.

2.Review of Related Literature:

A brief review of the relevant literature in the study area are given below-

David Orr(1989) He is the first to introduce the term ecological literacy in 1989.In an essay titled Ecological Literacy, Orr states the environmental education should change how humans live, and if environmental education is leading toward a sustainable lifestyle, then competence, which only happens by doing, will come with it. Knowing, caring and practical competence from the basis for ecological literacy.

Turner et al.,(2009) Environmental literacy in students will be achieved when the teachers themselves posses good knowledge about the environment. Therefore, we believe that several factors influence personal ecological literacy, knowledge, attitudes, gender and subject matter expertise.

Pai(1981) prepared and conducted a tryout of curriculum in environmental studies for college students to help them acquire and awareness of environmental and the interrelationships, interactions and interdependence existing between biological and physical aspects of the total environmental and its allied problems.

Neri,Edmond Molina(1990) to study the attitude selected environmental concern to environmental issues, problems or solutions, to examine perceived seriousness and readiness to teach issues and to examine perceived abilities to get involved with environmental education was done with 270 pre-services, middle and high school teachers of 16 selected colleges and universities of East Tennessee's. The analyzed data indicated that a majority of the per-service teachers had strong opinions, showed concern and support for experimental quality; attitude and familiarity with specific environmental concerns were varied among different groups.

Naseema's(2006) Study on environmental attitude of secondary school students revealed that majority of the students exhibited moderate favorable attitude towards environment. Gender of students does not have any major role in the study. Rural and urban school pupils do not differ significantly in their attitude towards environment. The interaction effect of gender and social position is not significant in attitude towards environment.

Shoemaker(1977) Reveled that ecological concepts can be presented at secondary level through field exercises and that students who participate in field exercises have better understanding of ecological principles then those who do not.

Kaiser et al.(1999) Posit that ecological behavior can be a 'powerful predictor of ecological behavior' and that earlier study findings were inconclusive because of omissions in structural models used to explore the attitude-behavior link. The propose a fused model that includes environmental knowledge, ecological behavior values and ecological behavior intensions as the foundations of attitudes, which they indicate can then be used to predict behavior somewhat reliably.

Danter(2005) Found that commitment of action by teachers at the end of a workshop had tremendously high level of prediction of actual implementation of ideas from the training. Cobern et al conducted a study comparing two types of commitment strategies. The study found that individuals with stronger commitments maintained the ecological behaviors at a statistically significant level, even a year after the study period.

3. Objectives of the Study:

The framed objectives in the study are as follows:

- 1.To study the Eco literacy of Science and Arts students studying in the post graduate level.
- 2.To study the environmental attitude of Science and Arts students studying in the postgraduate level.
- 3.To study the Ecological behavior of Science and Arts students studying in the postgraduate level.

4. Hypotheses of the study:

The hypotheses tested in the study are as follows:

Hypothesis 1: There is no significant difference between arts and science post graduate students with respect to their Eco literacy.

Hypotheses2: There is no significant difference between arts and science Post graduate students with respect to their environment attitude.

Hypotheses3: There is no significant difference between arts and science Post graduate students with respect to their ecological behavior.

Hypotheses4: There is no significant co-relation between environmental attitude and ecological behavior of Post graduate students.

5. Methodology: The study is based on descriptive survey method.

6. Tools used:(i)Eco literacy scale by Anne Marrie. Casper, Maria E. Fernandez-Gimenez and Meena M. Balgopal.

(ii) Taj Environmental Attitude Scale by Dr. Hassen Taj and

(iii) Ecological behavior Scale by Kaiser et al.

7. Analysis of the data: The study deals with the testing of the following hypotheses.

Hypothesis 1: There is no significant difference in Eco literacy between Arts and Science Post graduate students with respect to their Eco literacy.

Table 1: Showing mean, SD, numbers, t value with respect to Eco literacy of arts and science Post graduate students.

Eco Literacy	Stream	N	Mean	SD	t value	df	Level of sign
	Arts	34	149.76	5.81	2.513	98	Significant
	Science	66	153.50	7.06			

Table 1: Show that obtain t value of 2.513 is greater than the table t value of 1.98 at 0.05 level of significance for df of 98.

Therefore the null hypothesis is rejected and it is concluded that there is a significant difference between arts and science Post graduate students of University of Mysore with respect to their Eco literacy.

Hypotheses 2: There is no significant difference in environmental awareness between Arts and Science Post graduate Students with respect to their environmental attitude.

Table 2: Showing mean, SD, numbers, t value with respect to environment attitude of arts and science Post graduate students.

Environmental Attitude	Stream	N	SD	Mean	t value	df	Level of sign
	Arts	38	149.55	5.55	3.003	98	Significant
	Science	61	153.65	7.18			

Table 2: shows that the obtained t value of 3.003 is greater than the tabled t value of 1.98 at 0.05 level of significance for df of 98.

Therefore the null hypothesis is rejected and it is concluded that there is a significant difference between arts and science Post graduate students of University of Mysore with respect to their environmental attitude.

Hypothesis 3: There is no significant difference between arts and science Post graduate students with respect to ecological behavior.

Table 3: Showing mean, SD, number, t value with respect to Ecological behavior of arts and science Post graduate students.

Ecological behavior	Stream	N	Mean	SD	t value	df	Level of sign
	Arts	38	92.76	5.97	0.151	98	Not significant
	Science	61	92.57	6.14			

Table 3: Shows that the obtained t value of 0.151 is lesser than the tabled t value of 1.98 at 0.05 level of significance for df of 98.

Therefore the null hypothesis is accepted and it is concluded that there is no significant difference between arts and science Post graduate students of University of Mysore with respect to their Ecological behavior.

Table 4: showing variables, r value and total

Variables	r value	Total
Eco literacy, Environmental attitude and Ecological behavior	0.387	100

From the above table it was found that there is a positive low co-relation between Eco literacy, Environmental attitude and-Ecological behaviors.

8. Major finding of the study:

- A Majority 60 of Post graduate students was found to possess favorable Eco literacy and 14 percentages of Post graduate students possess less favorable literacy. Only 26 percentages of post graduate students possess highly favorable Eco literacy.
- A Majority 60% of Post graduate students was found to possess favorable environmental attitude and 14 percentages of Post graduate students possess less

favorable attitude. Only 26 percentages of Post graduate students possess highly favorable environment attitude.

- A Majority (87%) of Post graduate students were found to possess a less favorable Ecological Behavior. And 13% Post graduate students were found to possess highly favorable Ecological behavior.
- No significant difference was found between Arts and Science post graduate students about Eco literacy.
- No significant difference was found between Arts and Science Post graduate students about Environmental attitude.
- No significant difference was found between Arts and science Post graduate students about Ecological behavior.
- There is a positive low co-relation between Eco literacy, Environmental attitude and ecological behavior.

9. Suggestions:

- Increasing Eco literacy and creativity of students at Post graduate level.
- Provide factual information to students which will lead to the understanding of the intricate system of Ecological balance and man's place in it(Environmental attitude)
- Develop a concern and respect of Eco literacy, environmental attitude and ecological behavior of Post graduate Post graduate students.
- Inform students as to how they can play an effective role in protecting the environment
- Help them acquire the skills for identifying and solving environmental problems
- This should be enforce compulsorily through restructuring the curriculum and transaction mode, which again demands right literacy, attitude, awareness and action behavior towards environment conservation.
- The findings of the study revel that majority of Post graduate students possess and average ecological behavior. It means that they feel the existence of this problem but do not take it very seriously.
- Therefore environment education should be introduced at the levels both in formal as well as non formal. It should be introduced as a separate subject in schools as well as in colleges as per supreme court judgment as directed (December 19, 2003)

10. Conclusion:

Based on the analyses and findings the study concluded that there is a significance difference between Arts and Science Post graduate students of University of Mysore with respect to their Eco literacy. There is a significance difference between Arts and Science Post graduate students of University of Mysore with respect to their Environmental attitude. There is no significant difference between Arts and Science Post graduate students of University of Mysore with respect to their Ecological behavior. It was found that there is a positive low correlation between Eco literacy, Environmental attitude and Ecological behavior arts and science Post graduate students of university of Mysore.

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