

# Study of Achievement in Environmental Studies, Family Environment and Learning Styles as Predictors of Environmental Attitude among Secondary Level Students

Dr. Chetna Pandey

Department of Education, University of Allahabad, India

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**Abstract:** Environment in developing countries like India have been threatened by problems like poverty, pollution, overpopulation, degradation and depletion of environment. As such, the environmental protection and preservation has been an urgent need of the hour. Realizing its importance, it has been enshrined in the Constitution of India, which requires both the state and the citizen to protect, preserve and improve the environment. Considering the seriousness of the problem only inclusion in Constitution will not help a lot in preserving our environment, but the issue should be initiated at the grass root level i.e. in family, school and society. In the changing scenario of our society attitude of an individual are greatly affected by family, teachers, school environment, teaching methods, learning styles and many other factors and they all have a great impact on the personality development of the child. It is well accepted fact that healthy family environment, co-operative learning and environmental education can help a lot in the development of positive desirable attitude towards environment among future citizens.

**Keywords:** Environmental attitude, environmental education, family, learning styles, predictors, secondary.

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## 1. INTRODUCTION

We human being are totally dependent on our incredibly complex, creative environment. Yet our relationship with the environment is changing at an unprecedented rate. Pace of change has accelerated not only from our advancing technology, but from world population growth, economic growth and increasing frequent collisions between expanding human demands and the limits of the earth's natural system, as human beings are capable of changing their behavior and values which are then reflected in changes in national and international priorities.

### **Objective:**

Do family environment, achievement in environmental studies and learning styles contribute to prediction of environmental attitude among secondary students?

### **Hypothesis:**

Family environment, achievement in environmental studies and learning styles contribute to prediction of environment attitude among secondary students.

## 2. REVIEWS OF RELATED LITERATURE

**Emily Huddart and Others (2010)** in study 'Environment attitudes and behaviors in Canada - rural urban residents' found that rural residents are no more or less proenvironment than urban residents and rural environmentalism expresses itself in a different way, through different actions.

**Pamela and Waldron (2009)** has worked on 'Gross-cultural trends in environmental attitudes' and revealed that fears associated with terrorism, perception of environment threat and media attentiveness predicated environment concern. Cultural and regional differences are also the determinants of environment concern which should be considered while policy making and curriculum to meet different environment need of people.

**Pandey White Vicky Stoecklin (2008)** in their study 'Nurturing children's Biophilia : Development, Appropriate Environmental education for young children' revealed that to be effective children's environmental education needs to be designed to match children's developmental needs, interest, abilities and learning styles, best learning occurs with hands on, interactive play and self discovery. Direct sensory experience is good as compared to conceptual generalization.

**Sarah Carrie (2007)** Studied 'Gender differences in attitudes towards environmental science' which revealed that significant differences in boys and girls attitudes towards environment education, it can help both boys and girls to develop interest in environmental issues.

**Sunita Bhalla Mehan (2007)** in her study on 'Enhancing environmental awareness of school children' concluded that inquiry training model of teaching has affected students most. The concept attainment model has its place in increasing the environmental awareness of elementary students. Students taught by traditional model have not shown any significant gain regarding environmental awareness.

**Su-Kyung Kim and Others (2006)** in 'Change in Environmental attitudes of Middle and High school students after Anuran Call monitoring' found that environmental attitudes were improved after monitoring. The amphibian monitoring program was effective to improve the student's attitude towards conserving environment as well as students' knowledge on general behavior and ecology, but not on all environment problems.

**Hayes and Allenson (2005)** worked on the 'The implications of learning styles for training and development' explores the possibility of creating a match by promoting learner adaptability or modifying the trainer style.

**Louise Hayes and Others (2004)** in the article 'Parenting Influences on Adolescents' found that parents had fundamental influence on descents, habits and nature. Parent's social context, cultural norms and values and other charactertics have strong relationship with adolescents.

**Diaz and Cartnal (1999)** have studied 'Students' learning style in two classes- online distance learning and equivalent on campus" ,stated that use of wide variety of teaching methods does not cover learning preferences of all the students.

### 3. METHODOLOGY

The present research attempts to study about environmental attitude among secondary students in relations to family environment, achievement in environmental studies and learning styles. The independent variables are family environment, achievement in environmental studies and learning styles. Causal comparative and co relational survey method of descriptive research have been used to conduct the study. The sample for the present study comprises of 764 secondary students of Allahabad city.

Environment Attitude scale prepared by K.S. Misra was used to measure the environmental attitude of students. The researcher has developed the tool of family environment specifically to study the impact of family environment on the environmental attitude of a child. The researcher has prepared the achievement test for environment studies. The basis of items prepared for the achievement tests were the contents present in class IX and X syllabus of environmental studies. Altogether 175 statements were prepared but only 40 were present in the final form of tool. Learning style was measured with the help of Learning Style inventory developed by Kamlesh Jha. In this inventory 60 statements were given, which are related to student's style of learning.

### 4. ANALYSIS AND INTERPRETATION OF DATA

**Study of, Achievement in Environmental Studies, Family Environment and Learning Styles as predictors of Environmental Attitude among secondary level students.**

It was hypothesized that Achievement in Environmental Studies, Family Environment and Learning Styles contribute to as prediction of Environmental Attitude among secondary level students. Stepwise multiple regressions were used for

testing this hypothesis. To begin with achievement in Environmental Studies, family environment and learning Styles were used as independent variables for predicting scores on environmental attitude. Simplified version has been found by discarding the independent variables on the basis of highest P-value. Results have been shown in the table .I

**Table1:Results of stepwise multiple regression for predicting environmental attitude of secondary students**

S. No.	Independent Variables	Estimates	
		Initial Model	Simplified Model
1	Achievement	0.5940	0.5969
2	Family Environment	2.9360	2.9072
3	Learning Style: I	-0.7739	-0.7656
4	Learning Style: II	-0.6232	
5	Learning Style: III	0.5360	0.5308
6	Learning Style :IV	-0.4815	
7	Learning Style: V	1.5002	
8	Learning Style: VI	0.6808	
9	Constant	77.9997	79.0923
10	F-ratio	15.04	29.22
11	R-squared	13.715	12.8032

The table. I shows that for secondary students, R2 value is 13.715. It means that all independent variables explain 13.71 % variance in environmental attitude among secondary students. The value of F-ratio is 15.04 ( $P < 0.01$ ) and the value of constant is 77.99.

In the simplified version it was found that the value of constant is 79.0923.and Achievement in Environmental Studies, Family Environment and Learning Styles I and III can contribute to prediction of environmental attitude among secondary students. Among secondary level students, out of eight independent variables, achievement in environmental studies, family environment, learning styles: I *Individual vs. group* and learning styles: III *Circumstantially dependent vs. independent* emerged as the best predictors of environmental attitude

## 5. FINDINGS OF THE STUDY

Out of eight independent variables, achievement in environmental studies, family environment, learning style: I and learning style: III emerged as the best predictors of environmental attitude among secondary level students. Environmental education given up till class X has been proved effective in developing environmental attitude among adolescents. Therefore it is really necessary to teach environmental education in a more effective and interesting way to future generations. Family's values and attitude towards environment is really fundamental in developing positive attitude among children. The values given at home by parents are much more effective than any education in modifying environmental attitude in children and it lasts for ever also. Considering learning style: I, only *individual learning style* does not develop positive environmental attitude in children, it has to be modified depending on the content of the subject, then only it can help in improving environmental attitude among students. The circumstantial independence learning style of learning style: III help the student to learn more effectively as compared to Circumstantial dependence can cause distraction in learning of a child. Further it can be said that the secondary students are mature enough to be get distracted due to prevailing circumstances.

## 6. EDUCATIONAL IMPLICATION

We known that parents are the first teacher and family is the first school for a child had a major impact on the development of child's attitude and behavior on every aspect: Family must care about young people's environmental attitudes, beliefs and behaviors as they are likely to be carried into adulthood, communicated to offspring and expressed in leadership decisions as younger generations come of age. The way children learn is completely different than adults. To develop positive environmental attitude, children's environmental education needs to be designed to match children's developmental needs, interest, abilities and learning styles. As Emile said 'childhood has its own way of seeing, thinking

and feeling and nothing is more foolish than to try to substitute ours for theirs'. It is better to build children than to repair adults. For which one of the primary considerations we should deal with is child's learning style. It is crucial for parents and teachers to understand that each child has unique learning style that should be the bases for an effective learning. Different learning styles require different approaches and techniques. Unlike traditional educational approaches that make use of general concepts, modern learning methods focus on a student's specific behavior. Development of comprehensive environmental education programs based on child's learning behavior will help in maximizing child's potential and enhancing his or her environmental attitude.

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