

# Understanding Environmental Behaviour of High School Students: A Study

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## ABSTRACT

During the last two decades, environmental awareness programmes have been under taken at all levels. Now, Environmental Education is an integral part at all levels of education also with an aim to save and protect the planet earth for the future generation. But in spite of all these initiatives, the environmental problems are also increasing in alarming rate. The main reason may be though people are aware, they are not developing proper ecological behaviour to practice in day to day life. The study tries to understand the level of environmental awareness of High school students and to check knowledge and skills they have acquired for responsible ecological behaviour. Total 120 high school students are selected randomly by applying simple random sampling technique from four High Schools located in Kokrajhar town area for this study. One self-structured questionnaire to understand the environmental awareness level and one rating scale to check ecological behaviour of students have been used. The results suggest the responsibility to practice different environment related behaviour for sustainable development.

**Keywords** environmental awareness, environmental education, environmental problems, high school students, responsible ecological behaviour, sustainable development

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## Introduction

Environment is very closely related to day to day life of human beings and as such man plays a great role in preserving and improving the environment for development and for a better future. Environment refers to the sum total of conditions which surround man at a given point of space and time (Park, 1980). Environment has great influence on all living organisms and also gets influenced by them especially by human being. The environment defines the limits of what we can do on to a certain extent, but since last few decades we have been going beyond that limits resulting in environmental degradation which in turn posing a threat to us for our survival in a healthy way on this planet. So, it becomes our responsibility to take utmost care to protect our environment so that, we can live comfortably in a healthy environment.

Environmental awareness is a concern towards environment or environmental problems. In the last few decades environmental issues has become very serious and have been discussed worldwide. Many developed countries are slowly finding several alternatives and innovative technologies to minimize the effects of pollution and optimal utilization of the natural sources. In the recent years, several places around the world have been

devastated due to natural disasters, heavy floods and extreme climate change effects have affected several lives. The students should be inculcated the effective and optimal use of our natural resources and energy to safeguard our mother nature and also to revisit the traditional practices in conserving our resources in order to attain sustainability in all levels and for a healthy future. There is an urgent need of environmental awareness on every aspects of environment so as to produce socially responsible citizens for future. For this, not only environmental awareness level should be increased, but also responsible and judicious eco- friendly behaviour must be inculcated in every individual, especially among the student community to make environment clean, green and healthy.

## Significance Of The Study

The present world is witnessing a number of environmental crises, which are the results of unmindful exploitation of natural resources by human beings. There is an urgent need to create awareness among all human beings to conserve, protect and nurture our environmental resources. The knowledge of Environmental Education is very important for everyone in this web of life as it helps to create awareness and understanding of the evolving social and physical problems prevailing environment. The review of literature shows that

few studies are related to awareness-attitude-behaviour model of environment. But at the same time it has also been felt that if our new generation is educated with valuing the environment and if they are inculcated with ecological ethical behaviour, perhaps the future of the planet would be on safe hands. The present study has been conducted at Kokrajhar district of Assam to understand the level of environmental awareness of High school students and to check knowledge and skills they have acquired for responsible ecological behaviour.

### Statement Of The Problem

Environmental awareness and ecological behaviour have been appeared very important qualities to develop amongst our student community to conserve and preserve our physical environment. So, keeping in mind the need and significance of the problem, the study has been designed with the following title-

Understanding Environmental Behaviour of High School Students: A Study

### Objectives Of The Study:

1. To understand the level of environmental awareness of high school students.
2. To find out the difference in environmental awareness between Provincialised and Private high school students.
3. To study the ecological behaviour of high school students.
4. To find out the difference in ecological behaviour between Provincialised and Private high school students.

### Hypotheses Of The Study:

H1: The level of environmental awareness of high school students is low.

HO<sub>1</sub>: There is no significant difference in environmental awareness of Provincialised and Private high school students.

H2: The ecological behaviour among high school students is not satisfactory.

HO<sub>2</sub>: There is no significant difference in ecological behaviour of Provincialised and Private high school students.

**Review Of Related Literature** A few reviews of the relevant literature have been given below:

1. Patowary P. et al (2019) found in their study on "A study on the ecological behaviour of Higher Secondary School Students", that the students possess low level of ecological behaviour. However, the environmental behaviour of Science stream students are satisfactory than the Arts Stream students. The study was conducted on 120 Higher Secondary students from both the science and arts streams H.S. Schools of Kamrup Districts of Assam.
2. Ghosh. K. (2014) conducted a study on environment awareness among secondary school students of Golaghat district of Madhya Pradesh and their attitude towards environmental education. He found that environmental awareness and attitude towards environmental education among the secondary school students (both male and female) was not significant, but in case of rural and urban students the attitude towards environmental education was found significant. The in depth and positive relationship between environmental awareness and attitude towards environmental education found among those students was worthy to be mentioned.
3. A study "Environmental Awareness and Behaviour in Hongkong : A decade of development", by Timothy-Ka-Ying and Shirley Po- San Wan, has found that Hongkong people have consistently been highly aware of the seriousness of different environmental problems and are pessimistic in, in resolving those problems in future. Such pessimism is rooted in their unwillingness to put the matter of environmental protection over economic growth, their hesitation to modify their behaviour related to protection of environment, and their lack of confidence in the existing environmental laws. This study also reveals that educational attainment and gender are two important variables that affect the environmental awareness and behaviour of the people of Hongkong.
4. Thakur. K. (2012) conducted a study on environmental awareness among senior secondary school students of Chandigarh. The major findings of here study were that student of

both government and private schools showed comparable environment awareness, science students exhibited very high degree of environment awareness to compare with students of arts. Moreover, male science students exhibited very high degree of environment awareness than female science students.

- Sivamoorthy M. et.al conducted a study on Environmental awareness and practices among college students and found that the level of awareness is high among the students irrespective of gender differences but in practice level there is difference between genders that male practicing more than females.

### Delimitation Of The Study

The study is delimited to the following-

- Kokrajhar District of Assam (India).
- Only High Schools of Kokrajhar District of Assam (India)
- 120 students of class IX only.

### Methodology

The methodology adopted in the study has been described as follows-

- Method-** For the present study descriptive survey method is used to assess and understand environmental awareness and ecological behaviour of high school students regarding environment.
- Population-** The present study has been conducted in Kokrajhar District of Assam. Kokrajhar is one of the districts of Assam and is the gateway to Northeast India. Kokrajhar is famous for its inhabitation of exotic Golden Langur in Chakrashila Wildlife Sanctuary, situated in the district of Kokrajhar of Assam. The high school students are the population of the study.
- Sample-** Simple random sampling technique is used for selecting 120 high school students from 2 provincialised and 2 private high schools located in Kokrajhar area. Out of which 60 students have been selected from provincialised high schools and 60 students have been selected from private high schools by adopting simple random sampling technique.
- Selection of Tool-** In the present study one self-structured questionnaire and a rating scale have

been used to find out environmental awareness level and to check ecological behaviour of students. Questionnaire has been designed keeping in mind the following areas-

- Basic knowledge on environment.
- Celebrations and activities of famous environmentalists.
- Global warming and other global environmental issues.
- Causes of air pollution, water pollution and noise pollution.
- Use of plastics and its effects.
- Recycling of wastes.
- Miscellaneous.

### Analysis, Results And Discussions

#### ANALYSIS AND INTERPRETATION OF OBJECTIVE NO:1

Objective 1: To understand the level of environmental awareness of high school students.

H1: The level of environmental awareness of high school students is low.

The scores obtained from the Environmental awareness questionnaire have been analysed to find out the awareness level of high school students. The data obtained are presented in **Table:1**. The questionnaire contains 25 items with four options in each item. Each respondent scores 2 points for each correct response and zero point for wrong or incorrect response. Data obtained in the Environmental awareness is analysed by categorizing the scores into three levels, those getting 0-16 points have been placed under low level of environmental awareness, 17-33 points have been placed under moderate level of environmental awareness and those who have scored 34-50 points have been placed under high level of environmental awareness. Following this process, it has been tried to understand the environment awareness level of the students.

**Table:1 Frequency and percentage of level of Environmental Awareness (EA) among high school students**

LEVEL	MARKS RANGE	STUDENTS	PERCENTAGE
LOW EA	0-16	20	16.67%
MODERATE EA	17-33	60	50%

HIGH EA	34-50	40	33.33%
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**INTERPRETATION OF OBJECTIVE NO: 1**

Table: 1 exhibits the result of Environmental awareness among high school students. According to the table: 1, 33.33% of the high school students belong to high level of environmental awareness, 50% of the high school students belong to moderate level of environmental awareness and 16.67% of the high school students belong to low level of environmental awareness.

Therefore, it has been found that the environment awareness level of the high school students is average to high. So the hypothesis no. 1 is rejected.

**ANALYSIS AND INTERPRETATION OF OBJECTIVE NO: 2**

Objective 2: To find out the difference in environmental awareness between Provincialised and Private high school students.

HO<sub>1</sub>: There is no significant difference in environmental awareness of Provincialised and Private high school students.

After collection of data from 120 students from 2 (two) Provincialised and 2 (two) Private schools of Kokrajhar area, mean, standard deviation and t value have been calculated and presented in the following table: 2 for comparison of the result.

**Table: 2**

**Mean, standard deviation and t- value between**

**Provincialised and Private high school students towards environmental awareness**

Type of School	N	Mean	Standard Deviation	't' value	Level of significance
Government	60	47.25	4.13	2.94	Significant
Private	60	52.88	4.97		

**INTERPRETATION OF OBJECTIVE NO: 2 't'**

value between the mean scores of environmental awareness of students of provincialised and private schools has been calculated and found to be 2.94 which is significant at 0.05 and 0.01 levels of significance. Hence, the null hypothesis: 2 is rejected.

Therefore, it is clear that there is significant difference between the mean scores of environmental awareness of students of provincialised and private schools. The students of private schools are found to be more aware than the students of provincialised schools towards different environment issues.

**ANALYSIS AND INTERPRETATION OF OBJECTIVE NO: 3**

Objective 3: To study the ecological behaviour of high school students.

H<sub>2</sub>: The ecological behaviour among high school students is not satisfactory.

To understand and study the ecological behaviour of students, respondents have given to respond to a self-structured scale consisting of four levels i.e. strongly agree (SA), agree (A), disagree (D), and strongly disagree (SD).

**Table: 3**

**Frequency and Percentage of Different Ecological Behaviour of High School Student**

**A. REGARDING POWER CONSERVATION**

Sl. no.	Statement	Strongly Agree		Agree		Disagree		Strongly Disagree	
		F	%	F	%	F	%	F	%
1	In winter, I keep the heater on so that I do not have to wear sweater.	40	33.33%	20	16.67%	30	25%	30	25%
2.	In winter, I turned off the heater in my room at night.	55	45.9%	35	29.1%	20	16.67%	10	8.33%
3.	In winter, I leave the windows of my house open for long period of time to let in fresh air.	30	25%	20	16.67%	30	25%	40	33.33%
4.	I unplug any electrical appliances I'm not using in school or at home.	40	33.33%	50	41.66%	30	25%	00	00

**B. ECO-FRIENDLY CONSUMER BEHAVIOUR**

Sl. no.	Statement	Strongly Agree		Agree		Disagree		Strongly Disagree	
		F	%	F	%	F	%	F	%
1.	I buy biodegradable detergents to wash laundry.	30	25%	40	33.33%	30	25%	20	16.67%
2.	I buy organic products.	70	58.33%	30	25%	10	8.33%	10	8.33%
3.	I buy energy efficient light bulbs.	50	41.66%	40	33.33%	20	16.67%	10	8.33%
4.	I buy products that are in reusable or returnable containers.	60	50%	30	25%	20	16.67%	10	8.33%

**C. WATER CONSERVATION**

Sl. no.	Statement	Strongly Agree		Agree		Disagree		Strongly Disagree	
		F	%	F	%	F	%	F	%
1.	I leave the water running in the shower until it reaches the proper temperature.	30	25%	30	25%	30	25%	30	25%
2.	I try to turn off the faucet when I brush my teeth.	30	25%	25	20.9%	35	29.1%	30	25%
3.	I try to repair leak faucets quickly.	25	20.9%	35	29.1%	30	25%	30	25%
4.	I try to take short showers(less than 5 minutes)	10	8.33%	20	16.67%	30	25%	60	50%

**D. ECOLOGICAL WASTE MANAGEMENT**

Sl. no.	Statement	Strongly Agree		Agree		Disagree		Strongly Disagree	
		F	%	F	%	F	%	F	%
1.	For shopping, I prefer paper bags than plastic ones.	60	50%	30	25%	20	16.67%	10	8.33%
2.	I reuse my plastic bags.	60	50%	30	25%	20	16.67%	10	8.33%
3.	I collect and recycle used paper	60	50%	30	25%	20	16.67%	10	8.33%
4.	I sort soda cans for recycling.	45	37.5%	30	25%	25	20.83%	20	16.67%

**E. BIODIVERSITY PROTECTION**

Sl. no.	Statement	Strongly Agree		Agree		Disagree		Strongly Disagree	
		F	%	F	%	F	%	F	%
1.	After spending a day outdoors, I leave the site as clean as it was when I got there.	70	58.33%	20	16.67%	20	16.67%	10	8.33%
2.	I visit national parks and /or nature reserves.	40	33.33%	30	25%	30	25%	20	16.67%
3.	After eating chips, I throw the chips packet in the dustbin.	70	58.33%	20	16.67%	20	16.67%	10	8.33%

4.	I collect plants and seeds when I visit natural areas.	30	25%	40	33.33%	20	16.67%	30	25%
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### INTERPRETATION OF OBJECTIVE NO 3:

**Table 3** exhibits different ecological behaviour among high school students. According to the table, the highest score of percentage of ecological behaviour is related to biodiversity protection and ecological waste management. The average score of percentage of ecological behaviour has been found in respect of power conservation and ecological- aware consumer behaviour. However, the water conservation is the lowest score of percentage of ecological behaviour. Hence, the hypothesis no. 3 is accepted. It can be concluded that there is difference in the ecological behaviour among high school students and overall ecological behaviour of the students are not found to be not satisfactory.

### ANALYSIS AND INTERPRETATION OF OBJECTIVE NO: 4

Objective 4: To find difference in the ecological behaviour of Provincialised and Private high school students.

HO<sub>2</sub>: There is no significant difference in ecological behaviour of Provincialised and Private high school students.

**TABLE: 4**

**Mean, Standard Deviation and t- value between Government and Private high school students' ecological behavior.**

Type of School	N	Mean	Standard Deviation	't' value	Level of Significance
Provincialised	60	45.0	7.4	2.65	Significant
Private	60	48.8	8.3		

**INTERPRETATION OF TABLE 4:** By calculating 't' value between the mean scores of ecological behaviour of provincialised and private high school students was found to be 2.65 which is significant at 0.05 and 0.01 levels of significance. Hence, the hypothesis no. 4 is rejected. Therefore, it is clear that there is significant difference between the scores of ecological behaviour of

Provincialised and Private high school students. The students of private schools are found to have more effective and satisfactory ecological behaviour than the students of provincialised schools.

### Major Findings

Major findings of the study are as follows:

1. The level of environmental awareness among high school students is found to be average to high. 50% of them have average level of awareness and 33.33% of the students possess high level of awareness regarding environment. Therefore, it can be deduced that the high school students in Kokrajhar district of Assam are environmentally aware.
2. There exists significant difference in the level of environmental awareness of provincialised and private high school students. Private school students are found to be more aware on environmental issues than the provincialised school students.
3. The reason of such difference, when surveyed it was observed that the private schools are managed by private bodies. They look after everything on the basis of collection of students' fees. These schools are accountable to the parents, students and school management committees for overall maintenance of the school. So, the school maintains a strict disciplinary standard in campus and this value is also carried out by the students in outside the school campus too.
4. Students were asked to respond to some statements to judge their ecological manners and behaviour in terms of certain responsible behaviour towards environment. It has been found that students' ecological behaviour is appreciable in terms of different categories like power conservation, eco-friendly behaviour, regarding biodiversity, pollution control, conservation of water, ecological waste management etc.
5. So far as ecological behaviour is concerned, the high school students of Kokrajhar district

are found to be aware in showing responsible environmental behaviour.

6. The study can be concluded that the new generation is aware of different environmental issues and almost all of them are showing or practicing responsible behaviour towards the environment which signifies that in future environment will be on safe hands.

### Conclusion

The above research study had been conducted among high school students of ninth class (class IX) by surveying their environmental awareness levels on various environmental problems. After the analysis of the collected data and application of appropriate statistics, it is clear that high school students have moderate level of environmental awareness. On the other hand, a significant difference was found regarding environmental awareness between the students studying in provincialised and private high schools. Students of private school students are more aware to the environmental issues than the government school students. Moreover, satisfactory ecological behaviour has been found among the students. The investigator made certain valuable suggestions to the School Management Committee of both provincialised and private sample schools to initiate certain steps in schools. Apart from it the school can announce prizes to the students who show best ecological behaviour in the campus. Certain competitions like, essay writing, poster making, wall painting, best classroom management etc. can be conducted to encourage the students. Valuing our physical environment and showing responsible and judicious environmental behaviour is the only way to save the environment from further decaying.

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