

CHAPTER - 3

METHODOLOGY

The present investigation was undertaken to study the environmental knowledge and values of undergraduate students of The Maharaja Sayajirao University of Baroda. The present chapter describes the steps followed in methodology to conduct the study. They are as follows:

- 3.1 Pilot Study
- 3.2 Population of the Study
- 3.3 Sample Selection of the Study
- 3.4 Selected Sample
- 3.5 Data Producing Sample
- 3.6 Research Tools for Data Collection
- 3.7 Validity of Research Tool
- 3.8 Reliability of the Research Tool
- 3.9 Pretesting of the Research Tool
- 3.10 Data Collection
- 3.11 Scoring and Categorization of the Data
- 3.12 Statistical Analysis of the Data

3.1 Pilot Study

3.1.1 Objectives of the Pilot Study

- To study the environmental values of undergraduate students of The Maharaja Sayajirao University of Baroda.

- To study the difference in environmental values of undergraduate students of The Maharaja Sayajirao University of Baroda in relation to their:
 - a) Faculty.
 - b) Year of study.
 - c) Gender
 - d) Mother's education.
 - e) Father's education
 - f) Knowledge related to environment.
 - g) Family type.
 - h) Family income.
 - i) Mass media exposure.
 - j) Place of residence.

3.1.2 Sample of the Pilot Study

A preliminary study was conducted in the year 2013 in The Maharaja Sayajirao University of Baroda, Vadodara. The sample for the pilot study was selected from the following groups of faculties:

- Family and Community Sciences and Social work
- Arts and Commerce
- Science
- Technology

The sample of 30 was selected from each group of the faculties. Both boys and girls were selected from the first year, second year and third year purposively. The sample of the study thus comprised of 120 students. The distribution of sample can be seen in the table below:

Table 1: Distribution of Sample.**n =120**

Faculty	Total
Family and Community Sciences and Social Work	30
Arts and Commerce	30
Science	30
Technology	30
Total	120

3.1.3 Description of the Tool for Preliminary Study

A structured questionnaire was constructed. The questionnaire of the pilot study consisted of following three sections:

Section I : Profile of the respondents

Section II : Environmental knowledge of respondents

Section III : Environmental values of respondents

Section I : This section included items related to the profile of the undergraduate students such as their faculty, year of study, gender, mother's education, and father's education, place of residence, family type, family income and mass media exposure.

Section II: This section included thirty two multiple choice questions related to environmental knowledge in terms of following indicators:

- Global warming
- Limited and Unlimited sources of energy
- Energy saving devices
- Use of paper
- Recyclable and non- recyclable waste

- Biodegradable and non- biodegradable waste
- Water conservation
- Eco- friendly practices
- Pollution (air, water, soil)
- Ozone layer depletion
- Government agencies working for environment
- Acid rain
- Organic farming
- Composition of water and air on earth
- Save trees.

Section III: This section consisted thirty five statements describing the values of the students in terms of their thinking, liking, beliefs, opinions, practices etc. A three point scale was constructed for this purpose. The value statements were based on the following indicators:

- Respect for plant and animal species
- Love for nature
- Likeliness toward clean and healthy environment
- Actions to follow eco friendly practices
- Choice to use energy saving devices
- Choice to recycle waste
- Belief towards pollution
- Belief towards saving trees

- Opinion towards pollution
- Honesty in paying environmental taxes
- Choice of fuel for vehicles
- Actions to save water

Table 2: Description of Research Tool

Section	Content	Tool	Response system
I.	Profile of the students	Checklist	-
II.	Test of environmental knowledge of students	Multiple choice questions	One correct answer
III	Statements related to environment value of the students	Interval scale	3- point response system

3.1.4 Findings of the Preliminary Study

A survey method was used to find out the environmental values of undergraduate students which revealed the following findings:

The findings of the preliminary study comprised of two sections. Section I and section II. They were as follows:

Section -I: (Profile of respondents)

- There were equal numbers of respondents (30) from each group of faculty making a total of 120 respondents.
- Higher percentages of the respondents
- were female (60.8%).
- fathers were highly educated (63.3%).
- belonged to nuclear family (63.3%).

- were from urban area (78.3%).
- had medium mass media exposure (58.4%).
- Less than half of the respondents were
- from third year (45.8%).
- mothers were highly educated (48.3 %).
- More than one third of the respondents had medium (39.2%), monthly family income.

Section –II: (Environmental values of respondents)

- It was found that majority of the students were having moderate level of environmental values (61.7 %) followed by about forty percent found having high environmental values (38.3 %). Interestingly no student found having low level of environmental value.
- Similarly, higher percentages of students had moderate level of environmental knowledge (40.8 %), about one third of students had low level of environmental knowledge (35.8 %) and little less than one fourth (23.3 %) had high level of environmental knowledge. Therefore it could be concluded that although one third of the respondents showed low level of knowledge, values were found to be at high and moderate level.

The higher average environmental values were found in the

- respondents of the Faculty of Family and Community Sciences
- respondents of the third year
- Female students
- respondents having high level of mother's education
- respondents having high level of father's education

- respondents living in the urban and semi urban area.
- respondents belonging to nuclear family
- respondents of high family income group
- respondents having medium mass media exposure
- respondents having high environmental knowledge
- Significant difference was found in environmental values of students in relation to their Faculty, gender, family income and knowledge related to environment.
- No significant difference was found in environmental values of students in relation to their Year of study, mother's education, father's education, place of residence, family type and mass media exposure. So, it was decided to study these variables further on large sample to find out the variations in results. Also new variables were added in the study after analyzing and discussing with experts.
- The correlation coefficient was calculated between the environmental knowledge and environmental values. The results showed that there was found a positive and moderately high correlation coefficient between environmental knowledge and environmental values which means that there was an increase in the environmental values with increase in the environmental knowledge.

The pilot study revealed that the study designed along with its independent variables can be replicated on a larger sample which can reveal the environmental knowledge and values of the undergraduate students in relation to the selected variables of The Maharaja Sayajirao University of Baroda, Vadodara.

3.2 Population of The Study

The population of the study comprised of the undergraduate students of the Maharaja Sayajirao University of Baroda, Vadodara.

3.3 Sample Selection for The Study

- After deciding the population for the study, the next step was the selection of the sample. For this, **purposive convenient sampling method** was used by the researcher.
- All the faculties from The Maharaja Sayajirao University were listed down. These were:
 - 1) Faculty of arts
 - 2) Faculty of science
 - 3) Faculty of commerce
 - 4) Faculty of medicine
 - 5) Faculty of technology and engineering
 - 6) Faculty of family and community sciences
 - 7) Faculty of performing arts
 - 8) Faculty of journalism and communication
 - 9) Institute of Fashion Technology
 - 10) Institute of hotel management and catering technology.
 - 11) Faculty of fine arts
 - 12) Faculty of education and psychology
 - 13) Faculty of social work
- Faculties which have undergraduate courses were separated from the list these were:
 - 1) Faculty of arts
 - 2) Faculty of science

- 3) Faculty of commerce
- 4) Faculty of medicine
- 5) Faculty of technology and engineering
- 6) Faculty of family and community sciences
- 7) Faculty of performing arts
- 8) Faculty of fine arts
- 9) Faculty of education and psychology
- 10) Faculty of social work

- The faculties selected were clubbed in five groups. This can be seen in the table below:

Table 3: Categorization of Faculties:

Group No.	Name of Faculty Group	Faculties Merged
1.	Arts and commerce	Faculty of arts, faculty of fine arts, faculty of performing arts, faculty of commerce, Faculty of education and psychology
2.	Science	Faculty of science
3.	Technology	Faculty of technology and engineering
4.	Medicine	Faculty of medicine
5.	Family and Community Sciences	Faculty of family and community sciences, Faculty of social work.

- After forming these five groups of faculties, it was decided to take equal number of students from each group of faculty.
- From each faculty group, it was decided to take equal number of students from first year, second year and third year.

3.4 Selected Sample

Selected sample refers to the number of respondents selected for the study. It was decided to take one thousand undergraduate students from the faculties selected from The Maharaja Sayajirao University of Baroda, Vadodara. Two hundred students were taken from each group of faculties.

Faculty	Number of respondents selected	Number of respondents filled incomplete questionnaire	Number of respondents filled complete questionnaire
Science	200	14	186
Technology	200	16	184
Arts and commerce	200	18	182
Family and Community Sciences	200	17	183
Medicine	200	11	189
Total	1000	76	924

After separating the completely filled questionnaire, it was decided to take sample of 180 from each category of faculty. For this, 180 students were selected from each category of faculty with the help of random tables.

Faculty	Number of respondents filled complete questionnaire	Number of respondents removed	Number of respondents selected for data producing sample
Science	186	6	180
Technology	184	4	180
Arts and commerce	182	2	180
Family and Community Sciences	183	3	180
Medicine	189	9	180
Total	924	24	900

3.5 Data Producing Sample

Out of the one thousand undergraduate students, only nine hundred students who responded correctly to the research tool and selected by use of random tables were selected as data producing sample. Therefore, the data producing sample comprised of the following number:

Table 4: Number of Data Producing Sample.

Year of study →	First year		Second year		Third year		Total
Faculty ↓	Male	Female	Male	Female	Male	Female	
Science	30	30	30	30	30	30	180
Technology	30	30	30	30	30	30	180
Arts	30	30	30	30	30	30	180
Family and Community Sciences	2	58	5	55	1	59	180
Medicine	30	30	30	30	30	30	180
Total	122	178	125	175	121	129	900

Thus, the final research sample comprised of 900 undergraduate students from The Maharaja Sayajirao University of Baroda, Vadodara.

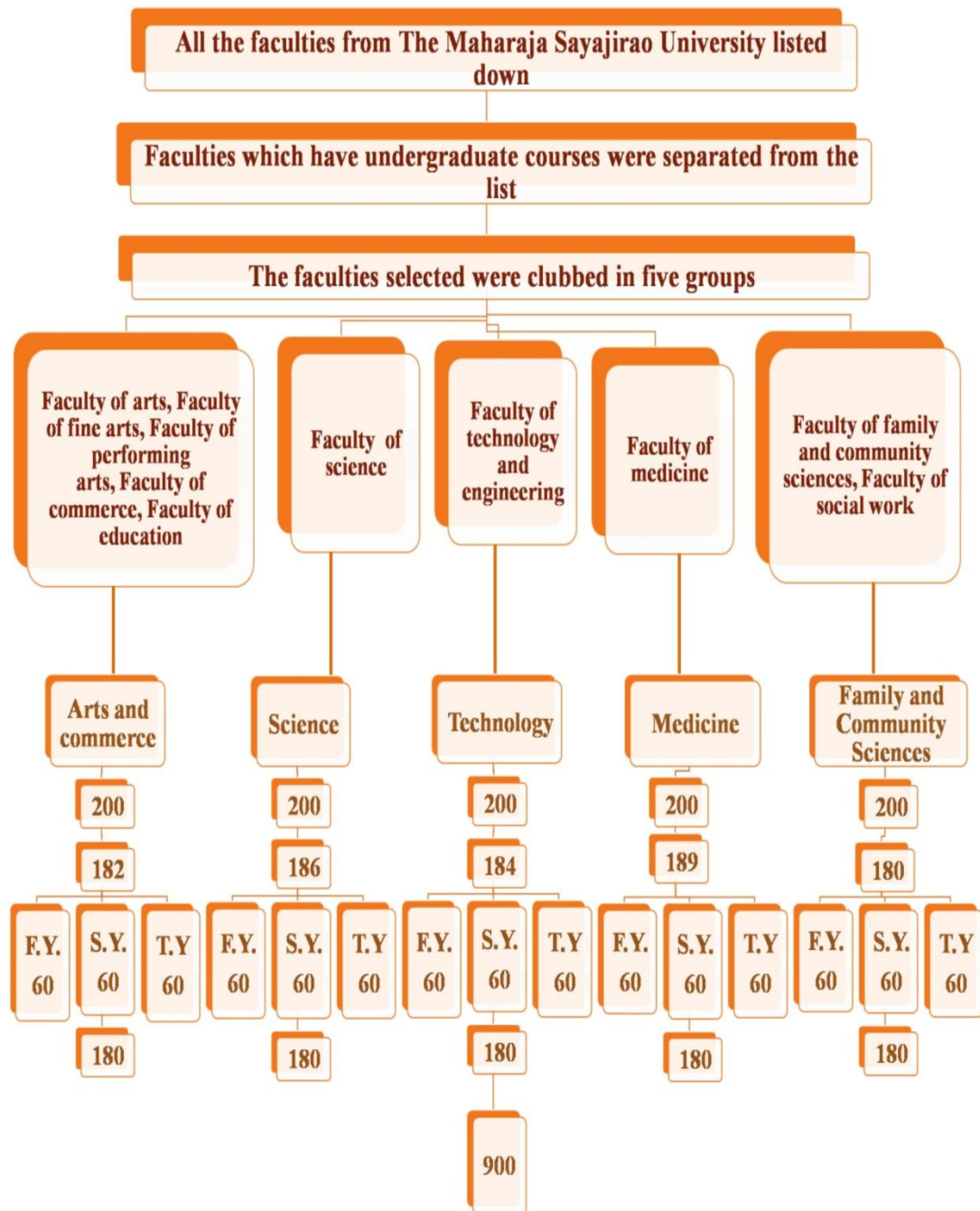


Figure : Sampling Procedure

3.6 Research Tools for Data Collection

The present study was an exploratory research. Therefore, survey method was applied for studying environmental knowledge and values of undergraduate students. Structured questionnaire was used as the research tool. The tool was constructed in English as well as Gujarati language. The relevant content for studying environment knowledge and values was drawn by referring the related literature in books, journals and on internet at following libraries:

- Smt. Hansa Mehta Library, The Maharaja Sayajirao University of Baroda.
- Library of Centre of Advanced Study in Education (CASE), The Maharaja Sayajirao University of Baroda.
- Library of Centre for Environment Education, Ahmedabad.
- Library of department of Environmental science, Faculty of Science, The Maharaja Sayajirao University of Baroda.
- Libraries of department of Extension and Communication and department of Family and Community Resource Management, Faculty of Family and Community Sciences, The Maharaja Sayajirao University of Baroda.

Studying environmental values is a relatively new area of study. So, before constructing the tool, the researcher had discussions with the experts in the field of environmental studies that is expert from the following departments:

- Centre for Environment Education, Ahmadabad
- Department of environmental science, faculty of science, The Maharaja Sayajirao University of Baroda, Vadodara.
- Centre of Advanced Study in Education (CASE), The Maharaja Sayajirao University of Baroda.

3.6.1 Description of the Research Tools:

A structured questionnaire was prepared as a tool for data collection. The questionnaire of the study consisted of following three sections:

Section I: Profile of the respondents

Section II: Environmental knowledge of respondents

Section III: Environmental values of respondents

Section I

This section included items related to the profile of the undergraduate students such as their gender, age, education in school, academic stream, parents education, family status, environmental education as subject in school, participation in environment related activities, mass media exposure and civic responsibility.

To study the variable participation in environment related activities, a list of different environment related activities was prepared such as gardening and farming/outdoor activities, social awareness activities, Recreational activities / field visits, Extracurricular activities and Performance/ participation in competitions on environmental issues.

Students were asked to tick mark those activities in which they participated.

For the variable mass media exposure, a list of various media used by the respondents for getting information related to environment was drawn that is internet, television, radio, newspaper and magazines. To know the extent of mass media exposure, four point response systems was used that is never, sometimes, often (2-3 times a week) and daily.

A 3- point interval scale (Likert- type scale) was constructed to measure the civic responsibility among the respondents. It included forty items related to civic responsibility among the respondents which showed their social responsibility; obey of fundamental duties and belief, thinking and concern for the community

Out of the 40 statements, 36 statements were positive and four were negative.

Section II: This section included fifty four multiple choice questions to measure the knowledge of undergraduate students related to environment. The questions were framed according to the syllabus of environmental studies for higher education as per University Grand Commission. The questions covered the following aspects of environmental studies:

Heading	Number of statements
Natural resources	11
Ecosystems	8
The multidisciplinary nature of environmental studies	8
Social issues and the environment	11
Biodiversity and its conservation	7
Environmental pollution	9

Thus, there were total 54 questions in this section.

Section III: This section consisted of forty three statements describing student's thinking, liking, beliefs, opinions, practices regarding environment as indicators of the environmental values. A three point scale was used for this purpose. Out of forty three statements, thirty were positive statements and thirteen were negative statements. The statements were based on the following indicators:

- Respect for plant and animal species
- Love for nature
- Likelihood for clean and healthy environment
- Actions to follow eco friendly practices
- Choice to use energy saving devices
- Choice to recycle waste
- Belief regarding pollution

- Belief regarding saving trees
- Opinion regarding pollution
- Honesty in paying environmental taxes
- Choice of fuel for vehicles
- Actions to save water

Table 5: Description of The Research Tool

The research tool used for data collection is described as follows:

Section	Content	Tools	Type of response system
I	Profile of respondents <ul style="list-style-type: none"> ▪ (Gender, age, faculty, year of study, medium of instruction in school, board of school education, mother's education, father's education, type of family, place of residence, family income, and family size). 	Checklist	Selecting an option from a given list which best applies to the respondent.
	<ul style="list-style-type: none"> ▪ Environmental as a subject in school and participation in environment related activities. 	Checklist	Tick marking appropriate options
	<ul style="list-style-type: none"> ▪ Mass media exposure 	Interval scale	Four point response system
	<ul style="list-style-type: none"> ▪ Civic responsibility 	Interval scale	Three point response system
II	Environmental knowledge test	Multiple choice questions	One correct answer
III	Environmental value measuring scale	Interval scale	Three point response system

3.7 Validity of The Research Tool

To check the validity of the research tool, five experts from the following departments were selected:

- (1) Department of Extension and Communication, The Maharaja Sayajirao University of Baroda.
- (2) Department of Family and Community Resource Management, The Maharaja Sayajirao University of Baroda.
- (3) Department of Environmental science, The Maharaja Sayajirao University of Baroda.
- (4) Department of Education, The Maharaja Sayajirao University of Baroda.
- (5) Centre for Environment Education Ahmadabad.

The experts checked the tool for its content validity according to the objectives and aspects of the study, clarity of language and appropriateness of the response system. The suggestions given by the experts were incorporated before the tool was finalized. However, no major suggestions were received on the tool.

3.8 Reliability of The Research Tool

After validation, the next step was to check the reliability of the research tool. Test – retest method was used to measure the reliability of the tools. The coefficient of correlation was calculated between two sets of scores. The tool was administered to the 20 undergraduate students from different faculties of The Maharaja Sayajirao University of Baroda, Vadodara. Five students each from faculty of Family and community sciences, Science, Arts and Technology were taken for the test. After a gap of fifteen days the tool was re-administered to the same group of students.

A high correlation (0.82) was found between the two sets of scores revealing high reliability of the tools.

3.9 Pretesting of The Research Tool

After checking reliability, pretesting of the research tool was done. The tool was pre tested on ten undergraduate students of The Maharaja Sayajirao University of Baroda, Vadodara. The students selected for pre- testing of the tool took 20 minutes to respond to it. The purpose of the pre testing was to know the difficulty faced by the students in filling the questionnaire, time required for filling up the questionnaire and to check the clarity of the language. The students did not report any difficulty in responding to the questionnaire.

3.10 Data Collection

To study the environmental knowledge and values of undergraduate students, the data were collected from 900 undergraduate students of The Maharaja Sayajirao University of Baroda, Vadodara, from March 2015 to May 2015.

- The deans of the selected faculties for the study were contacted and the purpose of the study was explained at first. Permission was sought for the data collection from their respective faculties, by submitting the necessary permission letter.
- Deans advised to contact the teachers nominated by them to help and guide the researcher in data collection. The schedule for the data collection was decided with the help of these teachers.
- The questionnaires were distributed in the classrooms as per the schedule to the students of various levels that is year wise.
- If the required number of sample was not available in the classes, the remaining number of sample was contacted at the hostel, canteens and common rooms ensuring their year of study, faculty etc. The permission of the chief warden and respective hostel wardens was also taken.
- Contact numbers of the students contacted at the places other than classrooms were collected so as to remind about collect the questionnaires.

Difficulties faced while data collection:

The researcher faced following difficulties in data collection:

- Fixing up the schedule for data collection in the classrooms in various faculties.
- Respondents at places other than classrooms needed repeated reminders to fill up and return questionnaires.

3.10.1 Tabulation of data:

- Data were coded on the basis of predecided scores to the responses.
- Excel sheets were prepared for the same purpose by the researcher.

3.11 Scoring and Categorization of The Data

The research data on environmental knowledge and values of the undergraduate students were scored and categorized as follows:

3.11.1 Categorization of the faculties selected for the study:

Variable	Description	Categories
Faculty	Faculty of arts, faculty of fine arts, faculty of performing arts, faculty of commerce, Faculty of education and psychology	Arts and commerce
	Faculty of science	Science
	Faculty of technology and engineering	Technology
	Faculty of medicine	Medicine
	Faculty of family and community sciences, Faculty of social work.	Family and Community sciences

As discussed in the sampling procedure, the faculties were categorized in above manner.

Categorization of Year of study:

Variable	Description	Categories
Year of study	First year	First year
	Second year	Second year
	Third and fourth year	Final year

The students from first, second and third year were taken from all the selected faculties. The faculty of technology had fourth year students also, so for the uniformity, the third and fourth year were merged as final year category as per the advice of the experts.

3.11.2 Categorization of gender:

Variable	Description	Categories
Gender	-	Male
		Female

3.11.3 Categorization of family type:

Variable	Description	Categories
Family type	-	Nuclear
		Joint

3.11.4 Categorization of family size:

The following categories were formed on the basis of the frequency distribution of the family size.

Variable	Description	Categories
Family size	Upto 4 members	Small
	4 to 7 members	Medium
	Above 7 members	Large

3.11.5 Categorization of monthly family income:

Based on the frequency distribution of the monthly family income of the respondents, following three categories were formed:

Variable	Description	Categories
Monthly family income	Less than 20000	Low
	20,000 - 40,000	Medium
	More than 40,000	High

3.11.6 Categorization of place of residence:

The place of residence was grouped into two categories, urban and rural. The rural, semi urban and hostlers from rural area were grouped into one category as there were less respondents in semi urban students and students from rural area living in hostel.

Variable	Description	Categories
Place of residence	Urban area	Urban
	Rural area, Semi- urban area, From rural area and living in hostel	Rural

3.11.7 Categorization of mother's education:

The mother's education was categorized into three categories low, medium and high level of education.

Variable	Description	Categories
Mother's Education	Up to Primary School	Low
	Up to Higher Secondary Education and Diploma	Medium
	Graduation and Above	High

3.11.8 Categorization of father's education:

The father's education was categorized into three categories low, medium and high level of education.

Variable	Description	Categories
Father's education	Up to Primary School	Low
	Up to Higher Secondary Education and Diploma	Medium
	Graduation and Above	High

3.11.9 Categorization of board of school education:

Gujarati board and other state boards were merged in one category as very few students were from the other state boards.

Variable	Description	Categories
Board of school education	Gujarat board and any other state board	State board
	CBSE board	CBSE board

3.11.10 Categorization of medium of instruction:

The medium of instruction in school was categorized in two categories English and vernacular. The Gujarati medium was merged with Hindi and other medium as there were less students in these categories.

Variable	Description	Categories
Medium of instruction in school	Gujarati medium , Hindi medium Any other	Vernacular
	English medium	English

3.11.12 Scoring and Categorization of participation in environment related activities in school:

Students were asked whether they participated in environment related activities in school. The scoring of responses was done as shown in the table below:

Response	Score
Yes	1
No	0

The categories formed were formed were as follows:

Variable	Description	Categories
Participation In Environment Related Activities	-	Participated in environment related activities
		Did not participate in environment related activities

There were 22 activities related to environment were listed down. Respondents were asked to tick the activities in which they participated. According to that minimum and maximum scores are shown in table below:

Aspect	No. of items	Minimum score	Maximum score
Level of participation in Environmental Activities in school	22	0	22

Based on these scores, three categories of equal interval were formed as follows:

Variable	Range of score	Categories
Level of participation in Environmental Activities in school	16-22	High participation
	9-15	Medium participation
	0-8	Low participation

There were very few responses in high participation category, so the final categories formed were:

Variable	Range of score	Categories
Level of participation in Environmental Activities in school	9-22 score	More Participation
	0-8 score	Less Participation

Based on the intensity indices, the following categories were formed:

Variable	Range of II	Categories
Level of participation in Environmental Activities in school	0.51 - 1	More participation
	0 -0.5	Less Participation

3.11.13 Scoring and Categorization of environmental education as subject in school:

Students were asked whether they had studied environmental education in their school or not? The responses of the variable were scored as follows:

Response	Score
Yes	1
No	0

The categories for the variable were formed as follows:

Variable	Description	Categories
Environment as a subject in school	-	Studied environment education in school
		Did not study environment education in school

3.11.14 Scoring and Categorization of mass media exposure:

The scoring given to the responses of mass media exposure were as given below:

Response	Score
Daily	3
Often	2
Sometimes	1
Never	0

So based on the scoring, the minimum maximum value of score will be:

Aspect	No. of items	Minimum score	Maximum score
Mass media exposure	5	0	15

Based on the minimum and maximum scores, three categories of mass media exposure were formed:

Variable	Range of score	Categories
Mass media exposure	11-15	High Exposure
	6-10	Medium Exposure
	0-5	Low exposure

There were very few responses in low mass media exposure, so the final categories formed were as follows:

Variable	Range of score	Categories
Mass media exposure	11-15 score	More Exposure
	0-10 score	Less Exposure

3.11.15 Scoring and Categorization of civic responsibility:

The statements on civic responsibility were scored as given below:

Nature of statement	Agree	Undecided	Disagree
Positive	2	1	0
Negative	0	1	2

Based on scoring, the minimum and maximum values of score were calculated as follows:

Aspect	No. of items	Minimum score	Maximum score
Civic responsibility	40	0	80

After this, three categories of civic responsibility were formed based on minimum and maximum score.

Variable	Range of score	Categories
Civic responsibility	54- 80	Highly Responsible
	27-53	Moderately Responsible
	0-26	Less Responsible

After analyzing frequency distribution, as there were very few respondents were found in low category of civic responsibility, so finally the following categories were formed:

Variable	Range of score	Categories
Civic responsibility	54-80 score	Highly Responsible
	0-53 score	Moderately Responsible

Based on the intensity indices, following categories were formed:

Variable	Range of II	Categories
Civic responsibility	1.37- 2	Highly Responsible
	0.67-1.37	Moderately Responsible
	0 - 0.67	Less responsible

3.11.16 Scoring and Categorization of environmental knowledge:

Scoring to the environmental knowledge tool was given as below:

Response	Score
Correct answer	1
No answer/ incorrect answer	0

Based on this scoring pattern, the maximum and minimum scores of environmental knowledge were:

Aspect	No. of items	Minimum score	Maximum score
Environmental knowledge	54	0	54

Three categories of knowledge were formed based on these scores:

Variable	Range of score	Categories
Environmental knowledge	37-54 score	High knowledge
	19-36 score	Moderate knowledge
	0-18 score	Low knowledge

To categorize the item wise level of environmental knowledge of the respondents, following categories were formed under each section of the environmental knowledge based on the intensity indices scores:

Variable	Range of II	Categories
Environmental knowledge	0.51 – 1	High knowledge
	0 -0.5	Low knowledge

3.11.17 Scoring and Categorization of environmental values:

Environmental value statements were scored as follows:

Nature of statement	Agree	Undecided	Disagree
Positive	2	1	0
Negative	0	1	2

The minimum and maximum scores on environmental values were as follows:

Aspect	No. of items	Minimum score	Maximum score
Environmental values	43	0	86

Three categories of environmental knowledge were formed as follows:

Variable	Range of score	Categories
Environmental values	57-86	High values
	29-57	Moderate values
	0-28	Low values

After analyzing the frequency distribution, it was found that only four students fall under low values category, so the final categories formed were as follows:

Variable	Range of score	Categories
Environmental values	57-86 score	High values
	0-57 score	Moderate values

The statements of the environment values were categorized in following two categories based on respondents:

- 1) thinking, likeliness, belief, love for nature, discussion about nature, feelings and

- 2) practices, preferences, support for environment.

Based on the intensity indices scores further, following categories were formed:

Variable	Range of II	Categories
Environmental values	1.01- 2	High values
	0 - 1	Low values

3.12 Statistical Analysis

The statistical measures used for analysis of data for three different groups were as follows:

Table 6: Statistical Analysis of The Data

Sr. No.	Purpose	Statistical method used
1.	Profile of respondents	Frequency, percentage and Intensity indices
2.	Variable wise environmental knowledge and environmental values	Percentage
3.	Variable wise differences in environmental knowledge and values	Cross tables, mean, t- test, F-test (ANOVA), post hoc statistics
4.	Item wise environmental knowledge and environmental values	Intensity Indices
4.	Relation between environmental knowledge and values.	Correlation coefficient

Statistical package of social sciences (SPSS 22.0) software was used to analyze data.