

# An Evaluative Study of the B.Ed. Curricula Operative in Universities with Specific Reference to Environmental Education

Mugdha Anand

St. Thomas' College of Education, Greater Noida, Uttar Pradesh, India.

## ABSTRACT

The present study elaborates on the environment and its basics, the history and growth of environmental education and the relevance of environmental education in teacher education. Theoretical orientations of the present study elaborates on contemporary environmental issues around the world, contemporary environmental issues in India, people's concern for environmental protection and preservation, environmental movements in India and environmental movements around the world. The design of the study includes the title of the research, objectives, operational definition of the key terms, delimitations of the study, population and sample, tools for data collection and procedure for analysis of the data in the context of the present study. The details of data collection, analysis and interpretations has been presented in two parts; the first part includes the analysis of the Syllabi Document of environmental education as prescribed in B.Ed. The curriculum of B.Ed. Institutions and the second part include analysis of Pre-service Teachers' Responses obtained from the self-constructed questionnaire in order to explore the awareness, knowledge and attitude (sensitivity) of pre-service teachers in relation to environmental education syllabi as prescribed in B.Ed. The curriculum of B.Ed. Institutions.

**Keywords:** Evaluative Study, B.Ed. Curricula, Environmental Education Operative in Universities, Pre-service Teachers  
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## INTRODUCTION

Nowadays, the word environment is being used all around us on television, in newspapers and even by laypeople. We find people talking about the protection and preservation of the environment. Global summits are being held regularly to discuss environmental issues. All this shows the increasing importance of the environment. Besides, it is a fact that life is tied with the environment and a close relationship exists between human beings and the environment.

On the one hand, humans are born in an environment and establish harmony with it. On the other hand, humans try to control their environment and change it according to their requirements. Hence it requires an understanding of the environment of which humans are a part.

### Need of Environmental Education

Everywhere population explosion and sweeping technological advances are urbanizing societies and creating unprecedented environmental degradation. If human society has to survive for not just another century but for thousands and thousands of years, we need to imbibe a way of life that can be sustained. World educators and environmentalists have repeatedly pointed out that any solution to the environmental crisis will require environmental awareness and understanding to be deeply rooted in the educational system at all levels as education is an instrument of social change and the most organized means of conservation and transmission of social thinking and ideologies. In order to revive the lost relationship between man and the environment, there is a need to incorporate the environment at all levels of education because education creates awareness, which in turn is necessary for any action to be taken. Environmental education is a process to promote awareness and understanding of the environment, its relationship

**Corresponding Author:** Mugdha Anand, St. Thomas' College of Education, Greater Noida, Uttar Pradesh, India., e-mail: mugdha1in@gmail.com

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with man and his activities. It aims to develop a world population concerned about the environment and its associated problems and who works individually and collectively towards solutions for current environmental problems. As environmental education enhances public awareness and knowledge of environmental issues and challenges to civilization, this must be matched with the need for primary, lower secondary, higher secondary, tertiary and adult education. Thus, environmental education assumes great significance, as people who are ignorant and indifferent to the environment must be educated.

### Need of the Present Study

Environmental education has a special relevance in the contemporary world and is a focused issue attracting global concern, has to have a special emphasis on Teacher Education. The introduction of an effective environmental education program requires teachers' involvement and participation. So, our teachers should possess enough environmental awareness, positive environmental attitude and skills to achieve objectives to develop the same in their students. For this purpose, it is also necessary to have adequate environmental education curriculum

for pre-service teachers in their training course as environmental education is being recognized as a timely intervention for teacher education. There is a need for teacher education in environmental education as there is lack of teachers who are sufficiently trained to implement environmental education as it has assumed much greater importance and complexity. Its interdisciplinary and holistic nature refers to its link with practically all other disciplines, e.g. Science, Mathematics and Social Studies etc. For all the above reasons, a school teacher must be aware and trained to teach about the environment and its conservation. Accordingly, the teacher training program and its curriculum should be designed to train the pre-service teachers to meet the need for environmental education to be imparted in the schools. Also, the syllabus of EVS developed after NCF (2005) shows that issues related to the distribution of resources such as water, food, shelter and forests are represented in the syllabus. Therefore, the syllabus of EVS is expected at the level of B.Ed. will take up these issues with the prospective teachers.

Thus, the present study entitled "An Evaluative Study of the B.Ed. Curricula Operative in Universities with Specific Reference to Environmental Education" proposed to evaluate the B.Ed. curricula operative in universities with specific reference to Environmental Education. The researcher has analyzed the B.Ed. curricula of various universities for their explicit focus on aspects related to Environmental Education. The explicit focus meant the direct inclusion and teaching of Environmental Education aspects in the curricula, whereas the implicit focus meant the possibility of emphasizing the Environmental Education aspects while teaching the various topics mentioned in the syllabi.

### Objectives of the Study

- To trace the history and growth of Environmental Education and also its relevance in B.Ed. in relation to contemporary Environmental Issues.
- To study and compare the Environmental Education syllabi as prescribed in B.Ed. The curriculum of B.Ed. Institutions.
- To explore the awareness, knowledge and attitude of pre-service teachers in relation to Environmental Education syllabi as prescribed in B.Ed. The curriculum of B.Ed. Institutions.
- To suggest a framework for formulating an Environmental Education syllabus for B.Ed. Curriculum (along with suggestive modules for helping pre-service teachers understand some selected topics/areas related to Environmental Education).

### Operational Definition of the Key Terms

#### *Evaluative Study*

The study tends to find or judge the value of Environmental Education syllabi of B.Ed. curriculum as practiced in B.Ed. Institutions located in Delhi/NCR.

#### *B.Ed. Curricula*

is a specified course of study for B.Ed. Program.

#### *Environmental Education*

is a paper of study offered in B.Ed. Program in order to develop a specific code of human behavior i.e., developing environmental values to protect and improve our environment.

#### *Delimitations of the Study*

- The study is delimited to the syllabi of environmental education of B.Ed. curricula of different universities of Delhi/NCR.
- The study is delimited to the sample size of pre-service teachers

chosen environmental education paper in full time one-year B.Ed. program of different teacher training institutions of different universities of Delhi/NCR.

- The study is further delimited to different backgrounds of pre-service teachers of different universities of Delhi/NCR.
- The study is also delimited to the selection of tools for data collection.
- The study is conducted only in five different universities of Delhi/NCR.

### Design of the Study

#### *Mixed method research design*

was used in the present study. The various aspects of this present research necessitated the need to consider the possibility of using quantitative and qualitative data collection tools.

#### *Population and Sample*

The present study covered a population of pre-service teachers of different Universities offering one-year full-time B.Ed. Program. Purposive sampling was used in the current study to draw samples from the various universities (5 different universities) conducting one-year full-time B.Ed. program in which pre-service teachers have opted for the Environmental Education paper. A total of 80 pre-service teachers who have opted for Environmental Education paper from the B.Ed. program of University 'A' (10), University 'B' (10), University 'C' (20), University 'D' (20) and University 'E' (20) participated in the study.

#### *Tools for Data Collection*

The researcher has used a mixed method research design for the current research. Therefore, both quantitative and qualitative tools were deployed for data collection. Several tools like the self-constructed questionnaire for Pre-Service Teachers - Environmental Education Assessment Questionnaire (EEAQ) and content of syllabi of environmental education in different universities (documents) were used with reference to the objectives of the study.

#### *Analysis of the Data*

Analysis of Syllabi Document and Analysis of Pre-service Teachers' Responses based on the self-constructed questionnaire. The content analysis of the B.Ed. curricula with specific reference to environmental education and syllabi of environmental education of different universities provided a window to explicit focus on Environmental Education through the representation of Environmental Education objectives and contents. This qualitative analysis includes the content analysis of the B.Ed. curricula of all the universities. An analysis of all the main papers, optional papers and methodology papers focussing on the environmental education related objectives and contents have been done. The Environmental Education syllabi of different universities were also analysed and various themes of environmental education were identified. These themes showed that there are gaps in the environmental education related content in the environmental education syllabi of universities under study. This critical examination pointed out lack of focus on Environmental Education and necessitated collection of more data and its analysis. This was needed in order to correlate these findings with pre-service teacher's responses w.r.t. their "Awareness and Knowledge about the Environment" and "Attitude (Sensitivity) towards the Environmental Education Programs and Curriculum". For this, the quantitative analysis of the gathered data and the qualitative analysis of written responses gathered



**Table 1:** A Comparative Overview of Content Analysis of the B.Ed. Curricula w.r.t. Environmental Education (EE) related Objectives and Contents

Name of the University	Main Papers		Optional Papers		Methodology Papers	
	EE-Related Objectives in:	EE-Related Contents in:	EE-Related Objectives in:	EE-Related Contents in:	EE-Related Objectives in:	EE-Related Contents in:
University' A'	NONE	NONE	1 Paper	1 Paper	1 Paper	2 Papers
University' B'	NONE	1 Paper	3 Papers	6 Papers	2 Papers	5 Papers
University' C'	1 Paper	NONE	3 Papers	3 Papers	NONE	NONE
University' D'	NONE	1 Paper	3 Papers	6 Papers	NONE	NONE
University' E'	1 Paper	1 Paper	4 Papers	4 Papers	1 Paper	2 Papers
Total	2 Papers	3 Papers	14 Papers	20 Papers	4 Papers	9 Papers

**Table 2:** Correct Responses (%) of Pre-service Teachers' Awareness and Knowledge about the Environment on Theme – I: Environment and Environmental Education

S. No.	University' A' %	University' B' %	University' C' %	University' D' %	University' E' %
1	80	80	80	100	80
2	80	80	100	100	80
3	80	100	100	100	80
4	100	80	80	60	80
5	100	60	80	100	80
6	60	100	60	80	80
7	80	80	80	80	80
8	60	80	100	100	80
9	80	80	100	60	60
10	60	80	60	100	80
11			100	100	80
12			80	100	80
13			100	100	80
14			100	80	100
15			60	80	100
16			80	100	100
17			80	100	100
18			60	100	100
19			80	80	80
20			80	60	80

through self-constructed questionnaires is an important aspect. The qualitative analysis involved interpreting and elaborating the responses viz. a viz. the theoretical understanding of Environmental Education as per literature. A detailed understanding of the gaps could only be gathered through this qualitative analysis because environmental education is a dynamic concept and also the participant's understanding may change with time due to new learning and experiences in the field. Also, at times the participants exhibited awareness and knowledgeable views concerning one theme but were not found aware and knowledgeable about some other theme.

**Content Analysis of the B.Ed. Curricula**

The content analysis of the B.Ed. Curricula w.r.t. environmental education by analyzing main papers, optional papers and

methodology papers focussing on the environmental education related objectives and contents was done very comprehensively. An overview of this analysis is presented in tabular form (Tables 1-5).

**Presentation and Analysis of Pre-service Teachers' Responses based on Self-Constructed Questionnaire**

Analysis of syllabi document (of B.Ed. Curricula Operative in Universities with Specific Reference to Environmental Education) pointed out lack of focus on Environmental Education in the curricula. This necessitated collecting more data and its analysis in order to correlate these findings with pre-service teachers' responses w.r.t. their "Awareness and Knowledge about the Environment" and "Attitude (Sensitivity) towards the Environmental Education Programs and Curriculum." Thus, quantitative and qualitative data were collected using a self-constructed questionnaire to explore pre-service teachers' understanding of Environmental Education

**Table 3:** Correct Responses (%) of Pre-service Teachers' Awareness and Knowledge about the Environment on Theme – II: Environmental Issues

S. No.	University' A' %	University' B' %	University' C' %	University' D' %	University' E' %
1	100	40	100	80	80
2	100	60	100	80	60
3	100	60	100	100	80
4	100	40	60	100	20
5	100	40	80	80	20
6	80	40	80	80	40
7	100	80	80	100	40
8	100	60	80	100	80
9	100	40	60	100	80
10	100	60	80	100	100
11			80	100	100
12			80	80	100
13			80	100	60
14			100	100	100
15			100	80	100
16			40	80	100
17			60	100	60
18			80	80	100
19			100	80	80
20			100	80	80

**Table 4:** Correct Responses (%) of Pre-service Teachers' Awareness and Knowledge about the Environment on Theme – III: Environmental Policies

S. No.	University' A' %	University' B' %	University' C' %	University' D' %	University' E' %
1	60	80	60	80	40
2	60	60	80	80	60
3	80	80	80	80	80
4	80	60	40	80	60
5	80	60	80	80	60
6	60	80	80	60	80
7	80	80	80	80	60
8	80	80	100	80	80
9	80	80	80	80	80
10	80	80	100	60	20
11			80	80	80
12			80	80	60
13			80	80	40
14			80	80	80
15			80	100	80
16			80	80	80
17			80	80	60
18			80	80	80
19			20	80	80
20			80	80	80

**Table 5:** Correct Responses (%) of Pre-service Teachers' Awareness and Knowledge about the Environment on Theme – I, II & III Total Percentage

S. No.	University' A' %	University' B' %	University' C' %	University' D' %	University' E' %
1	80	67	80	87	67
2	80	67	93	87	67
3	87	80	93	93	80
4	93	60	60	80	53
5	93	53	80	87	53
6	67	73	73	73	67
7	87	80	80	87	60
8	80	73	93	93	80
9	87	67	80	80	73
10	80	73	80	87	67
11			87	93	87
12			80	87	80
13			87	93	60
14			93	87	93
15			80	87	93
16			67	87	93
17			73	93	73
18			73	87	93
19			67	80	80
20			87	73	80

through appropriate analysis.

The quantitative data is represented in the tabular form depicting an account of the correct responses of pre-service teachers in the form of percentages of pre-service teachers of University' A', University' B', University' C', University' D', and University' E' on different themes of Environmental Education as per the used questionnaire.

Quantitative analysis of pre-service teacher's responses w.r.t. their "Awareness and Knowledge about the Environment" on three themes (Theme - I: Environment and Environmental Education; Theme - II: Environmental Issues; and Theme - III: Environmental Policies) revealed that overall level of awareness and knowledge about the environment based on all the themes - I, II & III, pre-service teachers of University' D' have higher level of awareness and knowledge about the environment in comparison to pre-service teachers of other universities and among all universities, pre-service teachers of University' B' and 'E' have least level of awareness and knowledge about the environment. This result corresponds to the difference in the curricula of B.Ed. and Environmental Education syllabi of these universities which has already been discussed. Qualitative Analysis of pre-service teacher's responses w.r.t. their "Attitude (Sensitivity) towards the Environmental Education Programs and Curriculum" on six themes: Theme I: Indigenous Crafts, Development and Our Environment; Theme II: Disaster Management; Theme III: Urbanization and Its Impact; Theme IV: Food Affordability and Food Security; Theme V: Deforestation; and

Theme VI: Air Pollution revealed that among all the universities, pre-service teachers of University' B' are least sensitive towards five theme areas out of six theme areas in comparison to the pre-service teachers of other universities' A', 'C', 'D', and 'E' who are more sensitive towards these areas. Also the pre-service teachers of University' E' are least sensitive towards only one theme area (Theme - I: Indigenous Crafts, Development and Our Environment) in comparison to the pre-service teachers of other universities' A', 'B', 'C', and 'D' who are more sensitive towards this area. This result corresponds to the difference in these universities' curricula of B.Ed. and Environmental Education syllabi. Also, this result corresponds to the result of quantitative data analysis.

**The Way Forward: Findings and Conclusions**

The collected data through research tools developed for the study has been analyzed and results are interpreted. This analyzed data serves as basis for interpreting results and arriving at some meaningful conclusions of the study. The findings and conclusions, according to the objectives of the study are presented as follows:

**Findings**

*Findings as per Objective*

To trace the history and growth of Environmental Education and its relevance in B.Ed. concerning contemporary Environmental Issues.





The present study elaborates on the environment and its basics, history and growth of environmental education and relevance of environmental education in teacher education. Theoretical orientations of the present study elaborates on contemporary environmental issues around the world, contemporary environmental issues in India, people's concern for environmental protection and preservation, environmental movements in India and environmental movements around the world.

#### *Findings as per Objective*

To study and compare the Environmental Education syllabi as prescribed in B.Ed. Curriculum of B.Ed. Institutions analysis of syllabi document (of B.Ed. Curricula Operative in Universities with Specific Reference to Environmental Education) pointed out lack of focus on environmental education in the curricula.

#### *Findings as per Objective*

To explore pre-service teachers' awareness, knowledge and attitude in relation to environmental education syllabi as prescribed in B.Ed. curriculum of B.Ed. Institutions.

Analysis of syllabi document (of B.Ed. Curricula Operative in Universities with Specific Reference to Environmental Education) pointed out lack of focus on Environmental Education in the curricula. This necessitated collecting more data and its analysis in order to correlate these findings with pre-service teachers' responses w.r.t. their "Awareness and Knowledge about the Environment" and "Attitude (Sensitivity) towards the Environmental Education Programs and Curriculum". Thus, quantitative and qualitative data were collected using a self-constructed questionnaire to explore pre-service teachers' understanding of Environmental Education through appropriate analysis. Quantitative Analysis of pre-service teacher's responses w.r.t. their "Awareness and Knowledge about the Environment" on three themes (Theme - I: Environment and Environmental Education; Theme - II: Environmental Issues; and Theme - III: Environmental Policies) revealed that overall level of awareness and knowledge about the environment based on all the themes - I, II & III, pre-service teachers of University 'D' have higher level of awareness and knowledge about the environment in comparison to pre-service teachers of other universities and among all universities, pre-service teachers of University 'B' and 'E' have least level of awareness and knowledge about the environment. This result corresponds to the difference in these universities' curricula of B.Ed. and Environmental Education syllabi. Qualitative Analysis of pre-service teacher's responses w.r.t. their "Attitude (Sensitivity) towards the Environmental Education Programs and Curriculum" on six themes: Theme I: Indigenous Crafts, Development and Our Environment; Theme II: Disaster Management; Theme III: Urbanization and Its Impact; Theme IV: Food Affordability and Food Security; Theme V: Deforestation; and Theme VI: Air Pollution revealed that among all the universities, pre-service teachers of University 'B' are least sensitive towards five theme areas out of six theme areas in comparison to the pre-service teachers of other universities 'A', 'C', 'D', and 'E' who are more sensitive towards these areas. Also the pre-service teachers of University 'E' are least sensitive towards only one theme area (Theme - I: Indigenous Crafts, Development and Our Environment) in comparison to the pre-service teachers of other universities 'A', 'B', 'C', and 'D' who are more sensitive towards this area. This result corresponds to the difference in these universities' curricula of B.Ed. and Environmental Education syllabi. Also, this result corresponds to the result of quantitative data analysis.

#### *Findings as per Objective*

To suggest a framework for formulating environmental education syllabus for B.Ed. Curriculum (along with suggestive modules for helping pre-service teachers understand some selected topics/ areas related to Environmental Education).

#### *Construction of the Framework for Environmental Education Syllabus*

Based on the review of related literature done and the content analysis of the B.Ed. curricula, the researcher has found out that there are lacunae and shortcomings in the existing curricula in different universities (of the present study). Thus, the researcher suggested a framework for environmental Education syllabus with the aim to develop a new model syllabus of Environmental Education that is compatible and in tune with recent developments in the subject area and also to reduce the existing lacunae and shortcomings. This framework was given to eight experts for review and changes made accordingly. The new Formulated Environmental Education Syllabus will have the course objectives; content organization in Units; content transaction of the syllabus and its content weightage i.e., marks.

#### *Construction of the Modules*

The researcher has identified two topics/areas related to Environmental Education for module formulation. The selection and formulation was based on the review of related literature done and the content analysis of the B.Ed. curricula. It also incorporates the components of new syllabus operative in universities 'A' and 'B' from 2015 onwards. These modules related to Environmental Education were given to eight experts for review and changes made accordingly. The modules include objectives, content organization, content transaction and its evaluation. The modules are on: 1) Water: A Precious Resource and 2) Food Affordability and Food Security

## **CONCLUSION**

The existing syllabus of environmental education in all the universities is limited in terms of its content depth and scope. Also the existing syllabus of environmental education in all the universities emphasizes more on the theoretical aspect only. This type of curriculum emphasizes the theoretical aspect and, lacking in its practical approach, cannot develop the right attitudes and skills to fulfill environmental education objectives. Due to this fact, pre-service teachers are not developing the right environmental attitudes (sensitivity).

Though pre-service teachers of different universities have environmental knowledge, their awareness is less and they lack an attitude in the discussed themes. Environmental education objectives and contents of B.Ed. program of these universities is sufficient for developing cognitive objectives to a certain extent but not sufficient to develop positive attitudes, skills and values towards the environment, which is the core of environmental education. Therefore, considering this situation, a well-planned and thoroughly revised environmental education syllabus is needed to break the ice. The findings suggest that the present Environmental Education Syllabus of B.Ed. program does not play a significant role in the development of environmental awareness, knowledge and attitude (sensitivity) among pre-service teachers. Therefore there is a need to revise the Environmental Education Syllabus of B.Ed. program. It requires an effective course to develop environmental awareness, knowledge and attitude (sensitivity) among pre-service teachers in

relation to environmental Education syllabus as prescribed in B.Ed. curriculum of B.Ed. Institutions.

Environmental education should be incorporated in a pre-service teacher training program on a compulsory basis as a main paper as then it will become accessible to all the pre-service teachers and there will be more aware teachers of the environment and its education who will, in turn, can make more number of school children i.e., future citizens aware about the environment and its different issues. This will create more opportunities for positive actions towards environmental conservation which is getting deteriorated day by day.

The direction emerging from the analysis clearly indicates that the teaching of environmental education should ultimately lead to the inculcation of a sense of duty and awaken the conscience and strengthen the level of environmental awareness of pre-service teachers to protect, preserve and improve the environment through positive actions. In order to realize the above, the objectives of the environmental education syllabus need to focus not only on knowledge but more importantly, on generating awareness, developing attitudes, values and skills, and promoting participation and action among pre-service teachers at all levels of teacher training programs. Learning opportunities would not remain limited to the classroom alone but extend much beyond it.

It is the responsibility of teacher training colleges and universities to groom pre-service teachers for this task of checking environmental degradation. The curriculum in existing teacher training course (B.Ed.) should be suitably amended to incorporate environmental education content, emphasizing methods to deal with environmental education content at school and developing skills in organizing environmental education programs with co-curricular activities like NCC, NSS and so on. Pre-service teachers should be encouraged to contribute to civil society movements pertaining to environmental protection. This could also include democratic protests to protect the rights of displaced and oppressed people.

## EDUCATIONAL IMPLICATIONS

The present study will be useful in reflecting upon the history and growth of Environmental Education and its relevance in B.Ed. concerning contemporary Environmental Issues. The study also has important implications for teacher education colleges. The teacher education course should encourage pre-service teachers to go beyond the prescribed syllabus of Environmental Education and organize tasks so that the students enjoy learning and develop skills as well. Learning should be experiential almost in its entirety. Through experiential learning the students will act as proactive future citizens of the country and create a vigilant society for better and healthy environment, thus leading to a sustainable future. The study will also help teacher educators to evaluate environmental education course in terms of their perception of environmental education and its implementation in pre-service teacher training classrooms.

This study also reviews the environmental education syllabi of different universities which can be used to fill the lacuna in the present syllabi of environmental education in different universities of India. This study also suggests the framework for formulating a Model Environmental Education syllabus for B.Ed. Curriculum which can be used as a basis for formulating the New Environmental Education syllabus for B.Ed. Curriculum.

Based on the suggested framework for formulating Environmental Education (EE) Syllabus for B.Ed. Curriculum, a

Model Environmental Education (EE) Syllabus, has been proposed by the researcher to be used as a paper on Environmental Education in B.Ed. Curriculum which can be taught as a main paper. This suggestive framework includes four main components of curriculum - Objectives, Content, Pedagogic Strategies and Ways of Assessment. In the study suggestive modules has also been formulated for helping pre-service teachers understand some selected topics/areas related to Water and Food. Based on this, other areas can also be chosen for formulating modules related to Environmental Education for both pre-service teachers and in-service teachers. The present research findings reflect the lacunae in the curriculum of B.Ed. program with specific reference to Environmental Education. The findings suggest a strong need to orient the curriculum towards emphasizing Environmental Education to develop a better awareness, knowledge and attitude (sensitivity) towards the environment among pre-service teachers. A pool of references and studies has been cited in the model syllabus. This can be a starting point for teacher educators for further exploration

## SUGGESTIONS FOR FURTHER RESEARCH

Research may be conducted to develop effective strategies that would help improve the quality of environmental education and improve the environmental awareness, knowledge and attitude (sensitivity) in pre-service teachers this study is limited to pre-service level (B.Ed.). Similar work can be done for higher level i.e., at M.Ed. level too, to study environmental awareness among these students this study is limited to pre-service teachers only. Similar work can be done to study environmental awareness, knowledge and attitude (sensitivity) among teacher educators teaching at different levels of teacher education programs viz., B.Ed. and M.Ed. level.

This study is delimited to pre-service teachers of only one college affiliated to the different universities of Northern India. Similar work can be done to study environmental awareness, knowledge and attitude (sensitivity) among these universities' pre-service teachers of other affiliated colleges this study is delimited to pre-service teachers of two central universities and three state universities of Northern India only. Similar work can be done in other Indian Universities also the study was delimited to Universities of Delhi NCR only and there is a need to conduct similar studies on other Universities across India and other countries.

The present study can be extended to evaluate a two-year pre-service teacher education program with specific reference to environmental education teachers can take up a study to design curriculum around environmental movements.

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