Teacher Perfection Level about Environmental Education

Suprakash Adhikari¹, Pritam Das¹ and Naba Kumar Mondal¹∗

¹Department of Environmental Science, The University of Burdwan
Burdwan, West Bengal, 713104

∗corresponding author: nkmenvbu@gmail.com

Abstract:
A study has been done to evaluate the status of consciousness about Environmental Education among the teachers of Technical college and General college in the district of Birbhum and Burdwan, West-Bengal. Study results revealed that in all aspect like of consciousness the technical college teachers showed better perfection than general college teachers. Finally it can be concluded that overall consciousness about Environmental Education of Technical college teacher much better performance than General college Teachers.

Keywords: Teacher perfection; Environmental Education; Technical College; General College.
INTRODUCTION

Global environment and ecology are rapidly becoming the most demanding subjects for debate, decision and action as the emergence of environmental problems pose a challenge from physical sciences as well as social sciences. Environmental education (ED) has single, defined but multi-faceted object the environmental crisis. Environmental learning about the factor cases and solutions to the environmental crises learning about the environment is ‘immediate’ reaction to concrete problems in management of natural resources. Environmental education seek to develop the ability to assess environmental situations and casual chains of relationships leading to environmental damage the interaction among social economic and physical factors, mutually related and over-lapping developments networks and feed back responsibility for future generations economy and care in use of all natural resources respect of revolution nature and life recognition of the limits of natural human action and self restriction and (i.e.) acquiring the ability to perceive nature Environmental education aims at ultimately for reaching and manifold behavioral changes in everyday life and at the work place. University education in India has three major components : teaching, research and extension. Out of more than 100 universities, there are about 20 universities teaching courses in environmental areas. Besides these, there are also research institutes and professional institutions like Indian Institutes of Technology, several Engineering Colleges, Schools of Planning and Architecture etc. which offer courses in environmental engineering.

Environmental education is the tool for sustainable development. Environmental education serves society in a variety of ways. Environmental education also serves society by providing a critical reflection the world, especially its failings bad injustices, and by promoting greater consciousness and awareness, exploring new vision and concepts, and inventing new techniques and tools. ED is a lifelong learning process that leads to an informed and involved citizenry having the creative problem-solving skills, scientific and social literacy, ethical awareness and sensitivity for the relationship between human and the environment, and commitment to engage in responsible and cooperative action (Mondal et al. 2009). Environmental education, humanity’s best hope and most effective means to achieve sustainable development. Environmental education must not be equated with schooling or formal environmental education alone. It includes non-formal and informal modes of instruction and learning as well including traditional learning acquired in home and community. This community of teachers can be widened to include all those. Whatever their role in society, who perceive a need or duty to inform and educate people regarding the requirements of a sustainable future. While sustainable development is a long-term goal for human society and a process that necessary needs to take place over time, there is a sense or urgency to make progress quickly before time runs out. There is now a new vision of environmental education.

Environmental education is not restricted to in-class lesson plans. There are numerous ways children can learn about the environment in which they live. From experiential lessons in the school yard and field trips to national parks to after-school green clubs and school wide sustainability projects, the environment is a topic which is readily and easily accessible. Furthermore, celebration of Earth Day or participation in EE week (run through the National Environmental Education Foundation) is a great way to dedicate your lessons to environmental education. To be most effective, promote a holistic approach and lead by example, using sustainable practices in the classroom and school grounds and encouraging students and parents to bring environmental education into their home.

The final aspect of environmental education policies, but certainly not least important, is training individuals to thrive in a sustainable society. In addition to building a strong relationship with nature, American citizens must have the skills and knowledge to succeed in a 21st-century workforce. Thus, environmental education policies fund both teacher training and worker training initiatives. Teachers must be trained to effectively teach and incorporate environmental studies in their curricula. On the other hand, the current workforce must be trained or re-trained so that they can adapt to the new green economy. Environmental education policies that fund training programs are critical in educating citizens to prosper in a sustainable society.

Related Study: Environmental education is a necessary tool for making appropriate decision concerning the solution and prevention of environmental problems which may be considered a disequilibrium caused by certain factors established between humanity, animals, plants and other organisms and the environment. Pressures from rapid population growth, uncontrolled and lavish consumption, urbanization, industrial expansion and advances in science and technology, and their application coupled with huge energy consumption have caused these accelerated changes leading to serious environmental problems. Any way these problems must be solved by combined efforts of community, public participation, student involvement, curriculum framing and legal regulation and so on (Kostova and Atasoy, 2008; Thiengkamol, 2011).

Preparation of good student is directly being linked with active class room teaching and successful learning. Students are spending most of the time of their span of life in school for shaping their personalities, which is very difficult to change later on in societies and environment. There activities in society and environment are very much relying on their personal quality and competences. Proper output of students in terms of make knowledgeable about environment and society, need mutual understanding and collaborative learning of environmental education.

Implementation of this idea deals with multiple problems including educational process, course choreography, syllabus content, and organizational backup along with psychological, pedagogical and social factors that exert an influence on successful learning of subject like Environmental Education.
The justification of Environmental Education was depends on; make the students knowledgeable about environment related issues like global climate change, including global warming, noise pollution etc. The environmental problems cant absolutely separate from individual level. The emerging cause is that people do not have enough knowledge and understanding, and lack of consciousness, awareness and attitude to practice proper behaviour including to realize that they must have very important parts to take responsibility for conservation of natural resources and environment.

Environmental education process will be able to train people to practice until they gain more knowledge and understanding, raise awareness, build consciousness, adjust attitude to be positive take responsibility, make a proper and clear decision to participate and practice to conserve the natural resources and environment with public mind to devote themselves for public or society including having concept to distribute their knowledge, understanding, awareness and positive attitude to their families, members and others to conserve the natural resources and Environment as them (Kostova and Atasoy, 2008).

On the basis of preliminary study in wide spectrum for the development of this course the significant key factors are (1) effective teaching strategies (2) and successful learning (Kostova and Atasoy, 2008).

Professional development for this course is needed to develop the knowledge of teachers those are associated with this course. As development of this course and implementation of developed strategy first of all need to find out teaching strategies, analyze gap which is main drawback for this course and ultimately periodic evaluation to measure the rate of development with magnitude.

Assessments of any courses like environmental education with multiple or single learning goal including educational synthesis and social science context issue is very difficult. Primarily assessment for this course, to evaluate the present status with existing teaching strategies is a daunting task. Although, the numbers of studies has been conducted at aimed to make a development of environmental education by several approaches. The evaluation was made by pre and post outcomes examination in between the application of such models (Thiengkamol, 2011; Wood, 2001; Barrett et al., 2009; Makowski, 2005). As for example, Thiengkamol, (2011) have made an approach to develop a model of environmental education by using a general or common environmental topic by pre and post evaluation and significance of success was justified by statistical tool like conformity factors. Whereas Wood, (2001) used Stake’s Countenance Model for development of environmental education by making compartmentalization of different sectors (teachers and students).

**SPECIFIC OBJECTIVES OF THIS STUDY**

i. To find out the consciousness of different technical college’s teachers in Environmental Education.

ii. To find out the consciousness of different general college’s teachers in Environmental Education.

iii. To find out the effective difference in teaching strategies between technical college teacher and general college teachers.

iv. To find out the consciousness difference about effective teaching strategies between technical college teacher and general college teachers.

**METHODOLOGY**

Presently study was conducted in technical and general colleges of the districts of Birbhum and Burdwan in West Bengal by random judgment sampling. This study was accomplished by using five dimensional questionnaires for technical college teachers, general college teachers.

The questionnaires of evaluation made for technical college students and general college students. In this phase of the project work focused the effectiveness of strategies about Environmental Science between technical colleges and General colleges.

**TOOL**

The study will be conducted by self-made questionnaire. The reliability coefficient of the questionnaire will be evaluated by test-retest method and after standardized the tool, the final draft of the questionnaire will be framed.

The questionnaires of evaluation made for technical college students and general college students. In this phase of the project work focused the effectiveness of strategies about Environmental Science between technical colleges and General colleges.

Presently study was conducted in technical and general colleges of the districts of Birbhum and Burdwan in West Bengal by random judgment sampling. This study was accomplished by using five dimensional questionnaires for technical college teachers, general college teachers. All items have employed in 5-point scale (5= strongly agree, 4=agree, 3=neutral, 2=disagree and 1= strongly disagree). A high score indicate a favorable respond towards the measured cons
RESULTS AND DISCUSSIONS: All the sampling (N = 600) were done from Birbhum district (Table 1). Two types of colleges were considered, one is Technical college and other one is General college. The mean achievement of three technical colleges are 38.36, 42.4 and 40.66 for Shantiniketan Institute of Polytechnic, Gobindapur Sephali Memorial Polytechnic and Basantika Institute of Engineering and Training, respectively.

Table No.1: Shows the distribution of the Students of Technical Colleges and General Colleges in Environmental Science

| SL No | Technical College                        | District | Total Students | SL No | General College                | District         | Total Students |
|-------|------------------------------------------|----------|----------------|-------|-------------------------------|------------------|----------------|
| 1     | Shantiniketan Institute of Polytechnic   | Birbhum  | 100            | 1     | Turku Hansda Lepsa Hembram Mahavidyalaya | Birbhum          | 100            |
| 2     | Gobindapur Sephali Memorial Polytechnic | Burdwan  | 100            | 2     | Asleya Girls College          | Birbhum          | 100            |
| 3     | Basantika Institute of Engineering and Training | Birbhum | 100            | 3     | Rampurhat College             | Birbhum          | 100            |
|       | **Total Students of Technical Colleges** |          | **300**        |       | **Total Students of General Colleges** |                  | **300**        |

Table No. 2: Shows the Means among Technical Students of Three Colleges Before Modeling (BM) and After Modeling (AM) in Environmental Science

| SL No | Technical Colleges                                      | Mean | Std. Deviation |
|-------|---------------------------------------------------------|------|----------------|
| 1     | Shantiniketan Institute of Polytechnic (SIP)            | 38.36| 6.178          |
| 2     | Gobindapur Sephali Memorial Polytechnic (GSMP)         | 42.4 | 5.045          |
| 3     | Basantika Institute of Engineering and Training (BIET) | 40.66| 5.867          |
Interpretation: Figure 1 shows that comparison among Technical College Students of Three Colleges before modeling (B.M) and after modeling (A.M) in Environmental Science. It was found that highest after modeling (A.M) mean score is (42.4) the college of Gobindapur Sephali Memorial Polytechnic (GSMP) and lowest score is (38.36) the college of Shantiniketan Institute of Polytechnic (SIP).

**Table No. 3:** Shows the Means among Students of Three General Colleges in Environmental Science

| Sl No | General Colleges                                      | Mean  | Std. Deviation |
|-------|-------------------------------------------------------|-------|----------------|
| 1     | Turku Hansda Lepsa Hembram Mahavidyalaya (THLHM)      | 30.66 | 4.858          |
| 2     | Asleya Girls College (AGC)                            | 34.56 | 7.511          |
| 3     | Rampurhat College (RHC)                               | 33.62 | 6.949          |

**Figure 2:** The Graphical Representation of Means among Three General College Students in Environmental Science
Interpretation: Figure 4 shows that comparison among General College Students of Three Colleges in Environmental Science. It was found that highest mean score is (34.56) the college of Asleya Girls College (AGC) and lowest score is (30.66) the college of Turku Hansda Lepsa Hembram Mahavidyalaya (THLHM). It was also found that highest before modeling mean score is the college of Asleya Girls college (AGC) and lowest lowest score is the college of Turku Hasda Lepsa Hembram Mahavidyalaya (THLHM).

**Figure. 3: The Graphical Representation of Means between Technical College teacher and General College Teacher) in Environmental Science**

![Graphical Representation](image)

Interpretation: Figure 5 shows that the comparison between Five Technical College Teachers and Seven General College Teachers. It was found that highest score is the Technical College Teacher's mean and lowest is General College Teacher's mean.

**Table No. 4: Showing Correlation Matrix between the dimensions of Technical colleges students before modeling (B.M) and after modeling (A.M) with General colleges students before modeling (B.M) and after modeling (A.M) in Birbhum districts**

|                  | Tech-Stu-BM | Tech-Stu-AM | Gen-Stu-BM | Gen-Stu-AM |
|------------------|-------------|-------------|------------|------------|
| **Tech-Stu-BM**  |             |             |            |            |
| Pearson Correlation | 1          | .337        | .168       | .196       |
| Sig. (2-tailed)  |             | .000        | .004       | .001       |
| N                | 300         | 300         | 300        | 300        |
| **Tech-Stu-AM**  | .337        | 1           | .051       | .032       |
| Pearson Correlation |             |             |            |            |
| Sig. (2-tailed)  | .000        | .379        | .575       | .032       |
| N                | 300         | 300         | 300        | 300        |
| **Gen-Stu-BM**  | .168        | .051        | 1          | .681       |
| Pearson Correlation |             |             |            |            |
| Sig. (2-tailed)  | .004        | .379        | .000       | .681       |
| N                | 300         | 300         | 300        | 300        |
| **Gen-Stu-AM**  | .196        | .032        | .681       | 1          |
| Pearson Correlation |             |             |            |            |
| Sig. (2-tailed)  | .001        | .575        | .000       | .681       |
| N                | 300         | 300         | 300        | 300        |

correlations
### **Interpretation:**

Table shows that in respect to Technical colleges students and General colleges students Before Modeling (BM) and After Modeling (AM). Technical colleges students (BM) is significantly correlated with Technical colleges students (AM), General colleges students (BM), General colleges students (AM) at .337, .168, .196 level respectively. Technical colleges students (AM) is significantly correlated with only Technical colleges students (BM) at .337 level. General colleges students (BM) is significantly correlated with Technical colleges students (BM) and General colleges students (AM) at .168 and .681 level respectively. General colleges students (AM) is significantly correlated with Technical colleges students (BM) and General colleges students (BM) at .196 and .681 level respectively.

### **FINDINGS AND CONCLUSION OF THE STUDY:**

Presently study was conducted in technical and general colleges of the districts of Birbhum and Burdwan in West Bengal by random judgment sampling. This study was accomplished by using five dimensional questionnaires for technical college teachers, general college teachers.

The questionnaires of evaluation made for technical college students and general college students. In this phase of the project work focused the effectiveness of strategies about Environmental Science between technical colleges and General colleges.

The first phase of the criticism is mainly given on the findings of the effective teaching strategies between the technical and general college teachers in Environmental Education:

1. The technical college’s teachers are used various type of teaching aids and laboratory but the general college’s teachers cannot provided fully this facility to the students.
2. The consciousness about evaluation system of technical college is effective but general college evaluation system is less-effective in Environmental education.
3. The specification of time of the classes in Environmental Education is sufficient in technical college but the amount of the time spent in general colleges is less.
4. The aspect of motivation is better in technical colleges than general colleges.
5. The number of resource person and faculty is better in technical colleges than general colleges.

The second phase of the criticism is mainly given on the findings of the effectiveness between traditional method and non-traditional method with technical and general college students in Environmental Education.

1. The motivation and seriousness of student is kind enough in technical colleges; where general college’s student is lack of interest in environmental studies.
2. The periodic evaluation of the students is more effective in technical colleges than general colleges.
3. The classes of theoretical and practical are both visible in technical colleges but in general colleges’ theoretical classes are only visible and it has been also marked that the number of students is less in general colleges than technical colleges.
4. The result of the tests in the study is also found that the non-traditional method/ After Modeling is more effective and better found than traditional method/ Before Modeling.

5. Lastly it has been observed that the field of the job in environmental education is not enough than other subjects; so far all the students of general and technical colleges are not interested in this field.

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