Development of Environmental Awareness through Language Teaching at Primary School Level

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Abstract

At primary school level Environmental Education is expected to be given in an integrated way through various school subjects. Languages as a subject of study consist of many topics through which Environmental awareness can be effectively developed among the students. In the present study the investigators analyzed the V and VI standard Marathi language textbooks (Maharashtra State Bureau of Textbook Production and Curriculum Research, 2009) to identify the topics for developing environmental awareness among the students and developed a Teachers’ Handbook consisting of: integrated Environmental Education content, supporting, facts, photos, pictures etc., the strategy of developing environmental awareness, the questions for evaluation and the message to be given. Then two topics, one from V standard Marathi language textbook and the other from VI standard Marathi language textbook, were selected for actual classroom teaching by using strategies presented in the Teachers’ Handbook (developed by the investigators). For testing the effectiveness of the strategies, Posttest Only Equivalent Group Design was used. The tool used was Integrated Environmental Education Achievement Test (developed by the investigators). The strategies were proved to be effective for developing among the students environmental awareness through Marathi Language teaching.

Key Words: Environmental Awareness, Language Teaching, Integrated Approach to Teaching

Introduction:

Oxford Dictionary defines awareness as ‘concern about and well-informed interest in a particular situation or development’. Accordingly, Environmental Awareness can be defined as ‘concern about and well-informed interest in environmental protection and environmental conservation’. Developing Environmental Awareness is an important objective of Environmental Education. Considering the severity of the environmental problems and the threat to the life on the earth, Environmental Education has been given an important place in the educational policies. Integrated approach to Environmental Education is preferred especially at school level so that it is given in a more meaningful way. Because Environmental Education as a subject of study is very closely related to the life, it can be given through all the subjects of study such as Languages, Math, Natural and Social Sciences etc.

Disciplines from the natural sciences to the social sciences to the humanities are connected through the medium of the environment and environmental issues. Environmental education offers opportunities for integration and works best when infused across the curriculum, rather than being treated as a separate discipline or subject area (NAAEE, 2010). The urgency of integrating environmental education into the whole system of formal education, and also across the school curriculum, cannot compensate for lack of strategies that raise environmental awareness. (Hadzigeorgiou Y. and Michael S., 2013). Teachers in Tanzania integrated environmental education...
as a subject content or as a learning resource. It was taught as specific topics, as integrated content, or as content to develop specific skills in a subject. When, on the other hand, it was taught through its use as a teaching and learning resource, the teachers used teaching and learning materials from the environment and they used the environment as a learning context. This kind of practice among the teachers is an indication that the teachers have a wide scope of environmental education. (Kimaryo L., 2011). The task of integrating environmental education is part of a broader one of ensuring that learning throughout the school has coherence, sequence, and balance. Linking environmental education with current syllabuses is possible because all syllabuses have some outcomes that provide opportunities for achieving the objectives of environmental education. (Department of Education and Training, NSW, 2001)

Language teachers have many opportunities to heighten students’ awareness about the environmental problems plaguing the planet while remaining committed to improving students’ English skills..... There are no rules that dictate exactly how educators should incorporate environmental awareness into the language classroom. The only requirements are that educators (1) recognize the importance of raising students’ environmental awareness, (2) encourage their students to take personal responsibility for protecting the earth, and (3) understand the value of CBI (Content Based Instruction) for promoting students’ language and content learning. The take-home message is that “going green” has many advantages. (Hauschild S., Poltavtchenko E., and Stoller F., 2012). The rapid growth of interest in global issues and global education within the field of English education over the past decade has helped to stimulate the profession in many ways. It has encouraged a reconsideration of the basic aims of English teaching, sparked a debate about the mission of our profession, and promoted a healthy discussion about meaningful content and educational relevance. It has spurred outreach efforts to global issue experts and organizations, provoked a sharing of classroom experimentation and research through conference presentations, and led to the formation of special interest groups devoted to promoting global awareness and action to solve world problems through effective language teaching. What is clear from these various trends is that the new commitment of English language teaching to promoting peace, international understanding, and global awareness is firm and growing stronger each year thanks to the work of thousands of English educators in countries around the globe. (Cates K., 1998)

Objectives of the Study:

1. To analyze the V and the VI standard Marathi Language textbooks (Maharashtra State Bureau of Textbook Production and Curriculum Research, 2009) with reference to the scope for Environmental Awareness
2. To identify the topics for Language teaching through which Environmental Awareness can be developed among the students
3. To develop the integrated content for Environmental Awareness through Language teaching
4. To develop Teachers’ Handbook for providing guidelines to the teachers for imparting the integrated content
5. To test the effectiveness of the Teachers’ Handbook
6. To make recommendations to the concerned people and institutions based on the results of the study
Methodology:

To fulfill the first two objectives V and VI standard Marathi language textbooks were analyzed and the topics, through which Environmental Awareness can be developed among the students, were identified. Then for each topic integrated environment awareness content was developed with the help of about 67 different online and offline resources such as Encyclopedias, Journals, Handbooks, and Survey Reports. After that the Teachers’ Handbook consisting of: Meaning and Nature of Integration, the Integrated Content, Techniques of Imparting the Integrated Content, Supporting Activities, Evaluation Mode and Message to be given to the students. The Handbook was assessed by three experts in the field.

The Handbook was developed by using Dick and Carey Model of Instructional Design (1990) (Instructional Design Central, Instructional Design Models and Methods, 2012)

To test the effectiveness of the Handbook, two topics, one each from the V and VI standard Marathi Language textbook were selected for actual classroom teaching. The experiment was conducted in one Marathi Medium aided school in Rukdi suburb (Dist. Kolhapur, Maharashtra). There were 45 students each in control and experimental groups of V standard and 37 students each in control and experimental groups of VI standard. Post test Equivalent Group Deign was used. Two female teachers of same age and same teaching experience were instructed to teach the selected content, one on control group and the other on experimental group. The Handbook was given to the teacher for experimental group for eight days and then she was provided an orientation of about one hour based on her doubts. The teacher for control group was provided with neither the Handbook nor any orientation.

The tool used for testing the effectiveness of the Handbook was Integrated Environmental Education Achievement Test (developed by the investigators).

Data Analysis:

Both qualitative and quantitative analysis of the data was done. For identifying the topics through which environmental awareness can be developed among the students in an integrated approach, qualitative analysis of Marathi language textbook of V and VI standard textbooks was done. Similarly, the experts’ remarks regarding the various components of the Handbook were qualitatively analyzed and used for modifications in the Handbook. For estimating the significance of the difference between the means of the post test scores, ‘t’ value was calculated.

Teachers’ Handbook: Peculiarities

The teachers Handbook developed by the investigators has following peculiarities-

1) It gives theoretical information about the meaning and the process of integration.
2) It gives the integrated content for each topic related to environmental issues.
3) The integrated content is in the form of facts, dialogues, drama and life story.
4) Supportive pictures and photos have been given.
5) The suggested activities and techniques of teaching and learning are participatory and based on constructivist approach.
6) ICT based (audio and visual) material related to certain topics has been provided along with the Handbook.
Findings of the Study:

1. In V and VI standard Marathi language text books (Maharashtra State Bureau of Textbook Production and Curriculum Research, 2009) respectively, five out of nineteen and fourteen out of twenty five topics are prone to the development of Environmental Awareness among the students. They are as follows
   
i) Biography
   Jagdish Chandra Bose – plants have sensations

   ii) Dialogues
   Between a) King and the Gardner on ‘Plantation of Walnut trees’
   b) Mahatma Basaveshwar and a thief on ‘Developing barren land and Earning livelihood’

   iii) Poems
   a) Season- effects of seasons on environment
   b) Birds’ School-Role of Birds in Environment
   c) Fighting with Flood Conditions- Effect of Flood on Environment
   d) Babul Tree – Characteristics of Babul, Role of Woodpecker
   e) Debt – Ox as an important animal

   iv) Picture Description
   Air Pollution - Causes, effects and remedies

   v) Imaginary Story
   Cutting of a Mango Tree-Characteristics of and uses of a Mango Tree

   vi) Stories based on authors’ own experiences
   a) About scarcity of Water
   b) About the fight with poverty- Improvement in barren Land and Successful farming

   vii) A Letter to Father
   Description of Birds( Siberian Crane)

   viii) Descriptive Essay
   Kingfisher, Monitor Lizard, Jarul Tree and Bishnoi Movement

   ix) Life Story
   Frog - Role in the Environment

   x) Wealth of Thoughts (Poems by Saints)
   Conservation of plants and animals

2. The Teachers Handbook was found to be effective in terms of student’s achievement in Integrated Environmental Education Achievement Test.

Concluding Remarks:

At primary school level Environmental Education is expected to be given through different subjects in an integrated manner. Language text books at Primary level consist of topics through which Environmental Education can be effectively given. However, there is a need of Teachers’ Handbook which provides guidelines for selecting the Topic, developing integrated content for Environmental Education, using techniques of imparting the integrated content, organizing supporting activities, selecting evaluation mode and giving appropriate message to the students.
This study provides such a Handbook for Languages teachers at standard V and VI. Such Handbooks should also be prepared for other school subjects at different levels and teachers trained accordingly so that the goal of environmental protection is effectively achieved.

References