

A Study on the Competencies and Commitment of Primary School Teachers towards Environmental Education in Warangal District

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Abstract

The present research aimed at studying the competences and commitment levels of primary school teachers. A sample 200 primary school teachers working in Government and Private schools were selected by using simple random sampling technique. It is evident from the study that the teachers are not possessing desired levels of identified competencies in order to teach environmental studies effectively. There is an immense need to organize in-service programmes for empowering the teachers to improve their performance.

KEYWORDS: Competency, Commitment, Environmental Education, Environmental Literacy

Introduction

Nature is fascinating. It embodies the spirit of the creator. The soft green leaf moving gently in the breeze, the drop of dew quivering on the petal of a rose, the Koel singing hidden in a mango grove, all are so enchanting, so enthralling. No less is the child with its hazel eyes, silken hair, rosy cheeks, toothless mouth and tender skin. Its father, the man, too is very handsome and is perhaps the most unique creation of god, unique in the sense that it is man who has made the world so beautiful. But for him, nature would not have been so enjoyable as it is. He has converted wild forests into parks, gardens, orchards and cities, and deserves all praise for that. But in doing that and in his attempts to make life more and more comfortable, he often destroyed forests thoughtlessly. The inevitable consequence was an ominous deterioration of the environment. The mankind did not stop even then, nor did they take that much caution to protect the bounty of the environment. The mankind, in fact, jumped headlong towards environmental pollution and crisis.

Now the time has come that everyone should be careful. If humanity fails to correct their tendency of exploiting the nature it may sobers down. Hence, the people at large may have irreversible predicament, in an ecological catastrophe which will bring an end of the home-rapier on this lovely planet. Environmental education will not only open our eyes to the havoc we have brought on ourselves in the form of byproducts of the progress attained by us but also it will inform us as to how we can intervene progress and life so that they exist together. One has to convince oneself that it is high time that one has to realize the need of environmental education without further lapse of time. Had the society

contemplated the importance of environmental education earlier, we could have saved some species from their extinction. Needless to mention, the rate of extinction of species has been rising phenomenally since the industrial revolution. The present statistics state that one species is disappearing every year. We can save these species only if we organize environmental education programmes on a large scale, without further delay.

In short, it can be said that environmental education is education through environment, about environment and for environment. It is both a style and subject matter of education. So far as the style is concerned, it means teaching about the components and constituents of environment. The teaching for environment is about controlling the environment, establishing proper ecological equilibrium which enacts proper use and conservation of resources and also involves control of environmental pollution. It includes proper environmental planning so that environment is not only functionally useful but is also aesthetically enjoyable.

Need for Environmental Education

For living a healthy and happy life, human beings need to maintain a three-fold harmony – harmony with themselves, harmony with society and also with nature itself. Among others, great thinkers like Plato and great works like the Vedas, the Upanishads and the epic Mahabharatha advocates human beings to maintain this harmony in their view of life and also in their ways to realize it. However, efforts in this direction have continued to be lopsided, for a very long time, the emphasis has been only on the first two. Under the influence of a gross materialistic philosophy developed in the west, nature, instead of satisfying human ‘needs’ has become an object of satisfying his ‘greed’. Mahatma Gandhi also warned mankind against this catastrophe, saying that nature can satisfy ‘human needs’ and not their ‘greed’. Even this advice has received little attention of the educational planners and practitioners.

The trouble lies with man’s way of life, his perception of happiness and his idea of a good society. Man today believes that his happiness lies in the fulfillment of his desires. The greater the satisfaction of desires; the happier the man. Being incapable of distinguishing between necessities or essential needs of life and luxuries. There is no dearth of such people even among the educated, who prefer luxuries rather than necessities. In this era of consumerism, the society has become too acquisitive and exceedingly possessive.

Instead of modern model of development which is anti-nature, which puts man against it and makes exploitation and destruction its sole objective, a new ‘model of sustainable development’, which takes care not only of the present generation of mankind but also of the future, be accepted and nurtured. In the words of renowned Gandhian economist Prof.J.C.Kumarappa, we are obsessed with ‘monkey economy’ monkey eats less but destroys more; in contrast, in the ‘bird economy’ the wastage is less than the ‘monkey economy’. In the third type of economy called the ‘mother economy’, the child sucks milk from the mother’s

breast but does not harm her, whatever the child takes from the mother can be supplemented by other means. Then, there is the 'real economy' aimed at sustainable development which keeps in view the requirement of the future generations, besides making up for the loss done to nature by consumption and due to destruction of its non-renewable sources. Pollution, ecological imbalances etc., which ought to be compensated to an extent, though its full compensation may not always be possible.

Unless environmental education becomes compulsory and an integral component of education and teacher education, its message cannot be conveyed to all. The Sarva Shiksha Abhiyan and compulsory universal education must include environmental education as the main objectives and stress upon development of critical awareness about the pressing problems of life specially environmental degradation, its consequences and methods to contain such evils etc.

Definitions of Environmental Education

→ According to the IUCN Commission of Education, 1970 –

↳ Environmental Education is the process of recognizing values and clarifying concepts in order to develop skills and attitudes necessary to understand and appreciate the inter-relatedness among man, his culture and his biophysical surroundings. Environmental education also entails practice in decision making and self-formation of a code of behaviour about issues concerning environmental quality.

→ According to Finnish National Commission for UNESCO, 1974 –

↳ Environmental Education is a way of implementing the goals of environmental protection. Environmental education is not a separate branch of science or subject or study. It should be carried out according to the principle of lifelong integral education.

↳ Environmental education is a process aimed at developing a world population that is aware of and concerned about the total environment and its associated problems and which has the knowledge, attitudes, commitments and skills to work individually and collectively towards the solution of current problems and prevention of new ones.

Definitions of Competency

→ Competency means capability, capacity.

→ Competency is ordinarily defined as adequate for the purpose, suitable, sufficient or as equally qualified, admissible or capable.

→ Competency refers to the knowledge possessed by teacher about the teaching process.

→ Competency is specified as outcome expected from the performance of professionally related functions.

The Need of Competent and Committed Teachers

In a world shrinking fast into a global village characterized by knowledge, technology and industries taking off at top speed and information highways opening up new vistas of prospects, the profile of the teacher would be quite different. Education is increasingly being perceived as a stake of crucial significance, capable of modifying the economic scenario and transforming the dream of millions of human beings for a better and higher quality of life into a reality. A very different kind of a teacher in specific contexts would have to be thought of and prepared to shoulder new responsibilities extending far beyond the confines of the classroom.

In order to equip the teachers well in these performance areas and to enable them to become thoroughly competent to carry out these professional tasks with efficiency and insight, competency areas have been identified for curriculum renewal. The competency areas are designed not simply to provide adequate theoretical and conceptual understanding but also to empower the teacher to perform their responsibility with professional insight and confidence. In essence, these are teacher competencies which should eventually aim at the development of the learner competencies and qualities at the school stage. The ten competency areas are (1) contextual competencies, (2) conceptual competencies, (3) content competencies, (4) transactional competencies, (5) competencies related to other educational activities, (6) competencies related to teaching learning materials, (7) evaluation competencies, (8) management competencies, (9) competencies related to working with parents, (10) competencies related to working with community and other agencies. Further, five commitment areas have been identified to form an integral and essential part of the curriculum for teacher education. They are (1) Commitment to the learner, (2) Commitment to the society, (3) Commitment to the profession, (4) Commitment to achieve excellence, (5) Commitment to basic human values {*NCTE Initiation Document – Prof. R.H.Dave*}.

Statement of the Problem

In view of the problem of research after delineating the relevant aspects in the area of environmental education, the research problem is stated as “*A Study on the Competencies and Commitment of Primary School Teachers towards Environmental Education in Warangal Dist.*”.

OBJECTIVES OF THE STUDY

1. To study the competency levels of primary school teachers working in Warangal district on environmental education.
2. To study the commitment levels of primary school teachers working in Warangal district on environmental education.
3. To study the importance of demographic factors of the teachers teaching environmental education and their competencies and commitment.

HYPOTHESES OF THE STUDY

1. There is no significant difference in the expression of primary school teachers teaching environmental studies in Warangal district on contextual competency.
2. There is no significant difference in the expression of primary school teachers teaching environmental studies in Warangal district on conceptual competency.
3. There is no significant difference in the expression of primary school teachers teaching environmental studies in Warangal district on content competency.
4. There is no significant difference in the expression of primary school teachers teaching environmental studies in Warangal district on transactional competency.
5. There is no significant difference in the expression of primary school teachers teaching environmental studies in Warangal district on competencies related to other educational activities.
6. There is no significant difference in the expression of primary school teachers teaching environmental studies in Warangal district on evaluation competency.
7. There is no significant difference in the expression of primary school teachers teaching environmental studies in Warangal district on competencies related to working with parents.
8. There is no significant difference in the expression of primary school teachers teaching environmental studies in Warangal district on commitments related to the learner.
9. There is no significant difference in the expression of primary school teachers teaching environmental studies in Warangal district on commitment related to the society.
10. There is no significant difference in the expression of primary school teachers teaching environmental studies in Warangal district on commitment related to the profession.

Sample of the Study

A sample of 200 primary school teachers have been selected from the schools managed by two different managements i.e., private and government. The sample includes 99 male and 101 female primary school teachers.

Development of the Schedule

The schedule has been developed keeping in view the competencies and commitment of primary school teachers in teaching environmental concepts to their students. The draft schedule consists of 42 items.

The related items in the schedule are categorized under seven competencies, which are (1) contextual competency, (2) conceptual competency, (3) content

competency, (4) transactional competency, (5) competency related to other educational activity, (6) evaluation competency, (7) competency related to working with parents. Further, the three commitments identified are (1) commitment to the profession, (2) commitment to the learner, (3) commitment to the society.

Data Analysis and Interpretation

In the present study, the variables (1) gender of the primary teachers and (2) management of the school, were taken up. For the purpose of data analysis, Chi-Square Test for 2×2 contingency has been used.

The information to the formulated hypotheses is presented in the tabular form and interpretations are mentioned below.

Table-1 – Showing the Expression of Primary School Teachers Teaching Environmental Studies on Contextual Competency

Statement	Variable	Group	Yes	No	χ^2 Value	LoS
Contextual Competency	Gender	Male	82	17	0.06	N.S
		Female	85	16		
	Management of School	Government	63	3	10.22	Sig. 0.01
		Private	104	30		

From the above table, it can be concluded that there is no significant difference in the opinion of primary school teachers teaching environmental science on contextual competency with reference to their gender, where as the expressed opinions are significantly differing with reference to their management of the institution.

Table-2 – Showing the Expression of Primary School Teachers Teaching Environmental Studies on Conceptual Competency

Statement	Variable	Group	Yes	No	χ^2 Value	LoS
Conceptual Competency	Gender	Male	78	21	0.18	N.S
		Female	82	19		
	Management of School	Govt.	51	15	0.46	N.S
		Private	109	25		

From the above table, it is evident that, there is no significant difference in the expressed opinions of primary school teachers teaching environmental science on conceptual competency with reference to their gender and management.

Table-3 – Showing the Expression of Primary School Teachers Teaching Environmental Studies on Content Competency

Statement	Variable	Group	Yes	No	χ^2 Value	LoS
Content Competency	Gender	Male	58	41	0.97	N.S
		Female	66	35		
	Management of School	Government	42	24	0.11	N.S
		Private	82	52		

From the table-3, it can be concluded that, there is no significant difference in the opinion of primary school teachers teaching environmental science on content competency with reference to their gender and management.

Table-4 – Showing the Expression of Primary School Teachers Teaching Environmental Studies on Transactional Competency

Statement	Variable	Group	Yes	No	χ^2 Value	LoS
Transactional Competency	Gender	Male	58	41	0.01	N.S
		Female	60	41		
	Management of School	Government	40	26	0.05	N.S
		Private	79	55		

From the above table, it can be stated that, there is no significant difference in the opinion of primary school teachers teaching environmental science on transactional competency with reference to their gender, educational qualifications, teaching experience, caste, management, medium of instruction and locality where they live.

Table-5 – Showing the Expression of Primary School Teachers Teaching Environmental Studies on Competencies Related to Other Educational Activity

Statement	Variable	Group	Yes	No	χ^2 Value	LoS
Competencies Related to Other Educational Activity	Gender	Male	50	49	0.49	N.S
		Female	56	45		
	Management of School	Government	39	27	1.24	N.S
		Private	68	66		

From the above table, it is evident that, there is no significant difference in the opinion of primary school teachers teaching environmental science on

competencies related to other educational activity with reference to their gender and management.

Table-6 – Showing the Expression of Primary School Teachers Teaching Environmental Studies on Evaluation Competency

Statement	Variable	Group	Yes	No	χ^2 Value	LoS
Evaluation Competency	Gender	Male	55	44	0.02	N.S
		Female	55	46		
	Management of School	Government	38	28	0.26	N.S
		Private	72	62		

From the above table, it can be observed that, there is no significant difference in the opinion of primary school teachers teaching environmental science on evaluation competency with reference to their gender and management.

Table-7 – Showing the Expression of Primary School Teachers Teaching Environmental Studies on Competencies Related to Working with Parents

Statement	Variable	Group	Yes	No	χ^2 Value	LoS
Competencies Related to Working with Parents	Gender	Male	60	39	0.30	N.S
		Female	65	36		
	Management of School	Government	41	25	0.01	N.S
		Private	84	50		

From the above table, it can be concluded that, there is no significant difference in the opinion of primary school teachers teaching environmental science on competencies related to working with parents with reference to their gender and management.

Table-8 – Showing the Expression of Primary School Teachers Teaching Environmental Studies on Commitment Related to the Learner

Statement	Variable	Group	Yes	No	χ^2 Value	LoS
Commitment Related to the Learner	Gender	Male	62	37	0.80	N.S
		Female	57	44		
	Management of School	Government	45	21	2.75	N.S
		Private	75	59		

From the table-8, it can be concluded that, there is no significant difference in the opinion of primary school teachers teaching environmental science on commitment related to the learner with reference to their gender and management.

Table-4.9 – Showing the Expression of Primary School Teachers Teaching Environmental Studies on Commitment Related to the Society

Statement	Variable	Group	Yes	No	χ^2 Value	LoS
Commitment Related to the Society	Gender	Male	70	29	0.32	N.S
		Female	75	26		
	Management of School	Government	55	11	5.80	Sig. 0.05
		Private	90	44		

From the above table, it is construed that, there is no significant difference in the expressed opinions of the primary school teachers teaching environmental science on commitment related to the society with reference to their gender and management.

Table-10 – Showing the Expression of Primary School Teachers Teaching Environmental Studies on Commitment Related to the Profession

Statement	Variable	Group	Yes	No	χ^2 Value	LoS
Commitment Related to the Profession	Gender	Male	69	30	0.04	N.S
		Female	69	32		
	Management of School	Government	47	19	0.23	N.S
		Private	91	43		

From the above table, it can be concluded that, there is no significant difference in the opinion of primary school teachers teaching environmental science on their commitment related to the teaching profession with reference to their gender and management.

5.7.0. CONCLUSIONS

The following conclusions emerged from the study

- Almost all the primary school teacher are able to develop environmental awareness, among their students. They possess the knowledge on environmental concepts and are able to develop sensibility to certain environmental issues. Further, they succeeded in developing the perseverance and concern for the improvement of environment among the students. All the primary teachers think that their classroom environment facilitates the development of

environmental awareness among their students. It was also observed that all the primary school teachers possess contextual competencies.

- Most of the primary school teachers are able to inculcate scientific temper, open-mindedness and divergent thinking among their students, which is facilitating the students to observe the nature. Thus, the conceptual competency is high among the primary teachers.
- More than half of the primary school teachers are good at content competency. They are comfortable in explaining some of the important and basic concepts related to environmental education, which facilitate to develop environmental awareness among their students.
- Majority of the primary school teachers are not able to transact the content, related to the environmental education effectively in their classrooms. They are not testing the previous knowledge of the students. Further, it is observed that, the teachers topic to be taught is announced before hand and is not elicited from the students. Students are not involved in the classroom activity. Though there is availability of apparatus and chemicals. The experiments are not demonstrated to the students. Thus the primary teachers lack transactional competency in teaching environmental science.
- Half of the primary school teachers are transacting the environmental concepts by following activity based method. They are organizing community life activities such as clean & green, eye-camps, etc. and they are also assigning projects, debates related to environmental issues. Only few teachers are organizing field-trips and excursions to their students. It was found that no institution is celebrating environmental day or earth day. This indicates that the competency related to other educational activity need to be strengthened among the primary school teachers.
- In the study it is found that half of the primary school teachers are of the opinion that their teaching of environmental studies is being supplemented by teaching-learning materials. Though the primary teachers are assigning follow-up activities related to environmental education like collecting specimens visiting the nature etc. No attempt has been made to evaluate the follow-up activities. The primary teachers are not using the locally available learning resources, such as the school garden, local nurseries, etc. in their teaching environmental concepts. In order to make the teachers to know the importance of the use of teaching learning material, the evaluation competency of the teachers need to be strengthened.
- More than half of the primary school teachers are of the opinion that the contents included in environmental studies textbooks develop the required competencies among the students on environmental issues. Further their teaching of environmental science is providing scope among the students to prepare some models of daily use by themselves. Majority of primary teachers are receiving cooperation and encouragement from their colleagues and managements in conducting environment related activities. Only few primary school teachers are devising their own activities other than the

activities prescribed in the environmental studies textbooks. This indicates that the commitment related to the profession need to be improved among the primary school teachers.

- Majority of the primary school teachers think that their students are acquiring the required competencies like scientific thinking, overcoming the superstitions in the society by studying environmental studies. Further it also help the students in removing their social barriers. Only few primary school teachers are involving the members of local community to participate in environmental activities conducted in their institutions. They are not seeking the help of NGOs and other agencies in popularizing environment related concepts. This indicates that the commitment to the society is not at the satisfactory level hence, it is to be enhanced.
- Majority of the primary school teachers are of the opinion that the environment related activities will be successful with the cooperation and encouragement of the parents. The teachers feel that they have to cope up with a variety of children in the classroom situation which can be achieved by parent-teacher interaction. But majority of the primary school teachers are not involving the parents while conducting activities related to environmental studies. This Indicates that the competency related to working with the parents needs to be further improved among the primary school teachers.
- It is observed in the study that majority of the primary teachers are clarifying the queries asked by their students while teaching environmental studies. They are entrusting the responsibility of collecting, arranging, preserving the environment related learning materials to their students. The primary teachers agree that the teachers and students together should discover the laws and principles of environment. This shows that the primary teachers are committed to the learner.

Educational Implications

The educational planners and practitioners are seriously engaged in working out different strategies of integrating environmental education at different levels of acquisition. There is consensus among all those concerned with environmental education are of the opinion that the awareness about the environment is to be developed from the beginning of the education. This necessitated to focus more on primary education as the children are with impressionistic minds for introducing environmental education. In view of such policy decision the curriculum planners introduced environmental studies as an integral part of primary education. The development of environmental consciousness among the children is possible only by way of effective transaction of the environmental related concepts. This is possible only with the competent and committed teachers who can effectively transact the environmental studies in their respective classrooms. Therefore, it opened the vistas of research in the area of environmental education. It is needless to state that effective curriculum, appropriate instructional strategies, meaningful teaching-learning material, besides competent and committed teachers are the

prerequisite for laying a strong foundation of environmental awareness among the young children.

The present research which aimed at studying the competencies and commitment levels of primary school teachers will enable us to know the level of teachers. It is evident from the study that the teachers are not possessing desired levels of identified competencies and commitments in order to transact the environmental studies effectively in our primary schools. Therefore, there is an immense need to organize in-service programmes for empowering the teachers to improve their performance. Any delay in this regard will cost the future of the society which will end in a holocaust.

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