RESEARCH ARTICLE

AN EXPLORATORY STUDY ON THE ROLE OF TEACHER EDUCATION IN SUSTAINABLE DEVELOPMENT: A CONTEXT OF TEACHER EDUCATION PROGRAMS.

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Abstract

The teacher is the most important element in any educational program. It is the teacher who is responsible for implementation of the educational processes at any stage. This shows that it is imperative to invest in the preparation of teachers, so that the future of the nation is secure.

Also, this is a well documented fact that the quality of teacher education has a direct bearing on the kind of education their students would obtain. It is hence implied that how the teachers are educated has to happen through a considerate, well-supervised and well thought out programs and curriculum. We must create such teachers who can educate students and teach them to become what we foresee our children to be in the future. If we want our students to be skillful, having knowledge of sustainable development and adopting these values in real life too, we must have our teachers trained with this philosophy. This transformation may come about in young children when their educators, i.e. teachers are educated in a holistic manner so that what teachers do is a synonym of their belief system. This may have a deeper influence on the thoughts of young children. It is well known that the quality and extent of learner achievement are determined primarily by teacher competence, sensitivity and motivation. Also, when the goal happens to be sustainable development then training of teachers with this outlook becomes even more important. They ought to be trained and educated how to teach what they teach in a sustainable manner. Therefore, integration of values of sustainable development in teacher education program is the necessary demand to have aware teachers who would produce students fully aware of intricacies of economic, political, global and environmental aspects of the reality they are present in. Our students need to be trained to handle and have a dialogue about big issues such as inequality, public health, global consumption, biodiversity loss and the limits of natural systems. In this paper, we have made an attempt to establish the balance, if any, between the purpose of teacher education as envisioned in UNESCO document and what actually is followed and even mentioned in B. Ed curriculum and the training institutes. Also to explore is there any gaps? What is the nature of these gaps and what plausible steps as a collective response we all must raise? Our paper will shed light on these aspects.
Introduction:
According to Goods dictionary of Education, Teacher Education means, “all the formal and non-formal activities and experiences that help to qualify a person to assume responsibilities of a member of the education profession to discharge his responsibilities more effectively. Briefly,

Teacher Education = Teaching Skills + Pedagogical Theory + Professional Skills.

Teachers are an important and viable source of education for sustainable development (ESD). Hence, they need to be educated and equipped with skills and knowledge so that they can carry out the global mission of sustainable development. This can happen only when teachers are funneled through such curriculum and education programmes which have space for issues dealing with sustainable development and teachers are exposed to a variety of issues wherein they are engaged in debates, discussions and reflect upon their own assumptions, prejudices and biases.

The issue of sustainable development is so pertinent that it was made one of the eight millennium development goals by UNDP. Later on, to meet the urgent requirements of sustainable development (SD), 2005-2014 was designated as the decade of education for sustainable development. However, it was realized that investing in the education in the form of curriculum reforms, school makeover, various activities, eco- clubs, etc. are just cursory in nature and do not have deeper impacts on the students.

It was then realized that Teacher education (TE) is an important step to achieve the SD goals because education for sustainable development (ESD) has to come through teachers and their holistic understanding of this area is required. So, the needs were felt for TESD i.e. teacher education for sustainable development. For effective planning and implementation of the measures to develop teachers fully skilled with aspects of SD, 2014-15 was made the year of Teacher Education.

Also, if we look at the fundamental meaning of Sustainable Development: it is an evolving concept that encourages finding ways to develop social, financial, and environmental resources that meet the needs of the present without compromising the ability of future generations to meet their own needs. It also allows different disciplines to enter into dialogue, make connections, share knowledge and work together on emergent areas. Education for sustainable development aims to develop students’ ability to understand and evaluate connections between big issues such as inequality, public health, global consumption, biodiversity loss and the limits of natural systems which set the premise for Teacher Education for Sustainable Development. Teachers need to be educated with the transdisciplinary nature of knowledge they would teach and understanding that everything to be taught has relevance to the life situations and are interconnected to wider issues. It would be the presumed role of teachers to bring those issues in the classroom and develop a platform in the class where discussions, dialogues can start. It helps in collaborative learning and helps students know the viewpoints of one another and reflect on their own thinking.

Background:
The groundwork has been laid for sustainability education worldwide. Recent changes in service learning, a focus on illiteracies and skills, standards that support interdisciplinary thinking and the role of systems thinking have all increased the visibility of the movement. Various approaches to ESD encourage people to understand the complexities of, and synergies between, the issues threatening the planetary sustainability and understand and assess their own values and those of the society in which they live in the context of sustainability. ESD seeks to engage people in negotiating a sustainable future, making decisions and acting on them.

The purpose of teacher education as per UNESCO documents is to provide commitment and skills across the world’s teaching profession so that children and youth can develop an enhanced understanding of what it means to work for a sustainable future, a sense of responsibility for future generations.

“All these discussions and concerns over current time uncertainties in nature compel teachers to inculcate in students those values which are conducive for their sustenance as well as sustenance of generations to come. For this, pedagogical approaches which are effective in the context of education for sustainable development can come better through teacher education if these aspects are explored and given authentic importance in teacher education.
programmes. This aspect of education for sustainable development may enable students to relate their learning to real life problems and situations.

The principles underlying sustainable can be separated into a social, economic, and ecological dimension. The economic growth is used to be seen as a requirement for development. No country can achieve a sustainable economic growth if the environment is worsening, if the prosperity is not fairly distributed and if the growth of the human resources has not taken place.

Therefore, the sustainable development is the need of hour and cannot be attained unless our teachers are innovative and creative in their classrooms and they teach their students in a sustainable manner.

**Rationale:**

The need of this research can be expressed in terms of any very recent policy changes at national and international levels. It is globally acclaimed that in the scenario of “Vigorous climate change, water shortages, degraded land and loss of biodiversity” (Ban ki Moon, 2006, UNEP), every nation is striving hard for reaching out to sustainable goals by adopting various measures and in that curricular reform for Teacher Education could be seen as the most common approach in many countries.

In addition to it, UNO has replaced the Millenium Development Goals for Sustainable Development Goals (2015-2030) to draw attention toward the urgency of sustainable development. The SDGs will be more ambitious than the Millennium Development Goals, covering a broad range of interconnected issues, from economic growth to social issues to global public goods. In India too, now the five year plan will be converted into a fifteen years vision document. These measures are taken up so that more intensive and localized solutions are explored to achieve sustainability with lesser investment and more target fulfillments. TESD is adorable and needed to achieve these goals.

Also, some other reasons for the present study could come from the reports of various researches which reveal that current pre-service teacher education lags behind in building the capacity of teachers to adopt approaches to impart education for sustainable development (Steele, 2010). As a result, evidence suggests that the teacher workforce is poorly prepared to implement initiatives meant to impart sustainable education. There is, therefore, a need for innovative teacher education approaches and strategies that integrate ESD and assist future teachers to become well-prepared for the new and emerging challenges them, and their students, face now and into the future. Also, there is a dearth of researches carried out in this area. It motivated me to carry out this sort of research where insights can be developed to design such teacher education program that cater to the sustainability aspects and preparing our teachers for imparting them on to students.

This research will also endeavor toward developing sustainability aspects among students through community development program. It is evident that there are constraints of time and resources for its implementation even then the need is to develop a teacher education program with the space for engagement with issues and concerns of contemporary Indian society, its pluralistic nature, and issues of identity, gender, equity, livelihood and poverty. And this may further help teachers in contextualizing education and evolving a deeper understanding of the purpose of education and its relationships with society.

Following research questions are formed which have guided through the research:

**Research Questions:**

1. Do present teacher education programs develop skills and values in teachers about education for sustainable development (ESD)?
2. How Eco clubs, green projects—mass plantation, cleanliness drive, awareness activities about diseases in schools sensitize students?
3. Will the integration of ESD in pre-service and in-service curriculum, enhance capacities of teachers in teaching sustainability issues?
4. What kind of changes in the attitude of students toward environment could be seen when they are taught by teachers trained with ESD understanding?
Methodology:-
Since the purpose of the research is to explore the role of teacher education in sustainable development. My concern has been to highlight underlying realities, so it is an in-depth study. Therefore, research is mainly qualitative. As per the research questions, some tools which are used are questionnaire- open ended and closed ended in nature for students, teachers. Observation of classroom processes and various activities held in the school with linkages to SD are done. B. Ed curriculum has been analyzed for the presence of aspects of sustainable development.

Major findings are as Follows:-
Learning should be appreciated as a participatory process that takes place in the shared social context of the learner’s immediate peers as well as the wider social community or the nation as a whole. Ideas expressed by educational thinkers, such as Gandhi, Tagore, Sri Aurobindo, Gijubhai, J. Krishnamurty, Dewey and others are often studied in a piecemeal manner, without the necessary context and without concern about where these ideas emanated from. No wonder they are studied and memorized, but seldom applied, by the very same teacher educators who present these ideas to the student-teachers. The participatory process is a self-experience-based process in which the learner constructs his/her knowledge in his/her own ways through absorption, interaction, observation and reflection.

The major shift is in the teacher’s role where he/she assumes a central stage position as a source of knowledge, as custodian and manager of all teaching, learning processes, and executor of educational and administrative mandates given through curricula or circulars. His/her role needs to be shifted from being a source of knowledge to being a facilitator of transforming information into knowledge/wisdom, as a supporter in enhancing learning through multiple exposures, encouraging the learner to continuously achieve his/her educational goals.

Another significant shift is in the concept of knowledge, wherein knowledge is to be taken as a continuum, as generated from the experiences in the actual field through observation, verification, and so on. The knowledge component in teacher-education is derived from broader areas of the discipline of education, and it needs to be represented as such. It means that conscious efforts are needed to represent an explanation from the perspective of education rather than merely specifying theoretical ideas from related disciplines with ‘implications for education’.

Knowledge in teacher-education is multidisciplinary in nature within the context of education. In other words, conceptual inputs in teacher education need to be articulated in such a manner that they describe and explain educational phenomena—actions, tasks, efforts, process, concepts and events.

Such a teacher-education program would provide adequate scope for viewing a theoretical understanding and its practical aspects in a more integrated manner rather than as two separate components. It enables the student-teacher and the teacher in the classroom to develop a critical sensitivity to field approaches. Thus, once tried out by self and others, it will lead to evolving one’s own vision of an ideal setting for learning. Such teachers would be better equipped for creating a learning environment, would try to improve existing conditions rather than merely adjusting to them with the necessary technical know-how and confidence. Another major shift is in understanding the impact of the social context in educative processes.

Learning is greatly influenced by the social environment/context from which learners and teachers emerge. The social climate of the school and the classroom exert a deep influence on the process of learning and education as a whole. Given this, there is a need to undertake a major shift away from an overwhelming emphasis on the psychological characteristics of the individual learner to his/her social, cultural, economic and political context.

Different contexts lead to differences in learning. Learning in school is influenced and enhanced by the wider social context outside the school.

Teacher-education programs need to provide the space for engagement with issues and concerns of contemporary Indian society, its pluralistic nature, and issues of identity, gender, equity, livelihood and poverty. This can help teachers in contextualizing education and evolving a deeper understanding of the purpose of education and its relationship with society.
Conclusion:-
It appears from the findings that there is a need for a shift in performance appraisal in the teacher - education program from an annual affair to a continuous feature. The teacher-educator should evaluate the student-teacher’s ability to cooperate and collaborate, investigate and integrate, and also appraises written and oral skills, originality in approach and presentation, and so on. Several kinds of appraisals should take place in the form of self-appraisal, peer appraisal, teacher’s feedback, and formal evaluation at the end of the year. All appraisals should aim at improving, understanding one’s own strengths and weaknesses, understanding what has to be strengthened, and identifying the next goals in the learning process. The appraisal mostly should not be given in marks (quantitative), but on a scale (qualitative), where the student’s achievement is evaluated as a continuum and he/she is placed according to his/her performance in various activities. Teacher-education programs need to provide the space for engagement with issues and concerns of contemporary Indian society, its pluralistic nature, and issues of identity, gender, equity, livelihood and poverty. This can help teachers in contextualizing education and evolving a deeper understanding of the purpose of education and its relationship with society. In brief, the new vision of teacher-education will be more responsive to changes in the school system as it envisages a significant paradigm shift.

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