



Original Article

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Take a Look at the Environmental Education in an Electronic Form from the Perspective of Miller Approaches to Curriculum

ElhamKoohi¹, Seyed Mohammad Shobeiri² Mojgan mohammadi³ ElaheKoohi⁴
Hossein Meiboudi⁵

Received: 2019/08/16 Revised: 2019/10/23 Accepted: 2019/12/15

ABSTRACT: One of the main ways to recognize the importance of environmental issues and natural resources and ways to preserve and restore them is to reflect them in the textbooks. Indeed curriculum is a means to implementation of environment educations so that students can develop their concepts and environmental perceptions and through this understanding communicate with their daily life and since all aspects of the environment are associated with each other, obtain a knowledge and understanding. This study aims to look at the role of environmental education in an electronic form from the perspective of different approaches of curriculum taken in Iran. In this study, data have been analyzed in a review, qualitative, interpretation and based on available documents. The theoretical framework of this study is based on the views and beliefs that show the positive role of e-learning methods in the field of environment from the perspective of different approaches to the curriculum. The curriculum has approaches that miller placed them in the continuum of behavioral to meta-individual approaches. That is the various approaches in which different approaches based on philosophical and historical foundations, different ways of interacting components of outlined program and the planners for the way of teaching accompanied with the goals, content, teacher, learner evaluation methods, physical environment, timing and rules and regulations draw specific strategies. The results showed that however, in approaches such as behavioral or disciplinary subject, the main focus of the program is based on the topics to develop knowledge or skills. In humanistic and meta-individual approaches the emphasis is on self-actualization and transcendence and spirituality. Accordingly the use of new technology and training in an electronic form is different in the various approaches while some educational experts emphasize development of this type of training, particularly in the environment and they review amount of attention to this type of training as the best way to institutionalize positive habits for

¹ MA in Education, Curriculum Payam Noor University, Tehran, Iran. *E-mail: elham.koohi@yahoo.com*

² Associate Professor, Department of Environmental Education, Payame Noor University, Tehran, Iran.

E-mail: sm_shobeiri@pnu.ac.ir

³ MA in Education, Curriculum Pay am Noor University, Tehran, Iran. *E-mail: mohammadi4051@yahoo.com*

⁴ MA Engineering Natural Resources - Forest Ecology, Science and Research Branch, Islamic Azad University.

E-mail: elahekoohiaghdam@yahoo.com

⁵ PhD in Environmental Management, Science and Research Branch, Islamic Azad University, Tehran, Iran.

E-mail: links.state@gmail.com



learning and having a positive attitude toward the environment they know. While some others only insist on face to face communications of teacher and learner ‘teaching activities of direct learning for environmental education.

KEYWORDS: Environmental Education, Curriculum, E-Learning, Approaches to Curriculum.



1. INTRODUCTION

Nowadays one of the main ways to recognize the importance of environmental issues and the current era is institutionalized in environmental crisis because the range of the areas of human on environment as a result of increasing population and the need for economic and social development at all levels is developed and increasingly has taken a wider dimension from exploitation and the indiscriminate use of natural resources which threatens the survival of the resources which damage the environmental body. Human in this era of machines has forgotten this fact that he is a member of the cycles of nature and a certain portion of each of these cycles is limited, but unfortunately he has used natural resources wastefully. There has been paid much attention to the environmental education across the world (chaty bakhsh, 2004). Even in the recommendations of around the world union conference for the protection of nature and its resources (Iucn) 1 is, usefulness and emergency training related to environmental issues at all levels and textbooks is shown. Nowadays curriculum and related approaches are a means to implement environmental education so that students can develop their concepts [16] and environmental perceptions and communicate through this perception with their daily life and acquire knowledge about all aspects of the environment that are connected with each other. Teaching and learning and its patterns have been encountering with changes in historical evolution. Entering concepts related to the environment to the texts and providing related approaches in [17] curriculum courses of study makes students from the beginning and formation of his character to change [18] so that they treat environment not only as a lesson but as a human duty and responsibility. In official documents and public education reform the country's 29 year outlook horizon, improvement of customs and life skills, health and environment and the number of education goals have been considered (fundamental transformation document, 2009).

However, different people like Eisner (2002) category ideologies and approaches to the curriculum venture and six ideology curriculum including religious dogmatism, rationalist humanism or rational progress-oriented, critical theory, new concept-oriented and cognitive pluralism is raised. But miller's classification (2000) of curriculum approaches more important is the following two dimensions: author first, miller more specifically paid attention to category theories or approaches to curriculum and tried to clarify looking at the different components of the curriculum in each one. Second, Eisner based on his view about religion and his mental bases has considered classification approaches which Malla paid more attention to his category (khandaghi, 2007).

Natural resources and ways to preserve and restore them is reflected in these textbooks and training is in electronic form. Common mode of coach-apprentice and training old times shows the most important practices and learning skills during the past which in the present time we need it. Development of science and technology, followed by the dramatic developments in the different areas and the industrial revolution, the idea and the thought of ancestors have faced with challenges. The advent of information and communication technology in all facets of human social life and merging the borders and time, the world has become a global village. Easy use of tool instead of man power made thinkers to think deeply about how to take advantage of technology in teaching and learning. The outcome of this mediation and effort was learning through electronic means which later it was called virtual and electronic learning. In fact, technology tools were used for the transfer of knowledge and learning which according to Ackoff it was technology in education, learning that support system. Learning environment over time changed the traditional form to the virtual form. However, since 2002, Iran's ministry of education is served as broker policy of education and in the process of education reform made decisions to develop it Iran's schools and in that efforts six thousand high school were equipped with the hardware and ICDL was implemented for teachers(Attaran 2009).

But concern for the development of E-learning practices for professional education remains as serious concerns. However, when assessing the environmental impact of their legal status in the country's policy, developing training on software skills and the official start of its users was started. Educational services are provided in order to promote professional and practical environmental impact assessment. This study looks to check the status of environmental education in an electronic form according to miller's approach to curriculum. The question that will be answered here is that

whether today's E-learning can be considered as one of the major strategies in recognizing importance of environmental issues natural resources and ways to preserve and revive it through education. Accordingly, in the present study, category of miller in theories range considered curriculum and in each E-learning in terms of the status of environmental education in an electronic form and challenges are discussed. However, some emphasize on the term "virtual education". In this article virtual education is considered education by electronic way. That's why learning is seen in contrast with real training while teaching approach can be considered as real training

2. LITERATURE REVIEW

According to research and studies carried out in accordance with the study of Shobeiri and et al (2009) in research considering the role of virtual education in development environmental education, this study's data collection is a survey-descriptive study. Research tools are questionnaire and library studies by reading books and domestic and foreign publications blogs , electronic journals, training databases, E-learning environment and interviews with experts in the field of E-learning. According to the research questions using these tools information are collected and have used questionnaires. The main concepts of research are declared and finally society population is examined to clarify "the role of learning in the conception and development of environmental education". The results showed that using of E-learning in development of environmental education is a fundamental necessity in the development of environmental education and environmental contributions to the development and activities can only be possible through the expansion of communications and technology. It should be remembered that the traditional teaching in this time of rapid progress cannot resolve the educational needs of society alone and environmental education at this time is not pervasive in our country and few web sites for government agencies and private or personal organizations are developed to increase public awareness .we use this opportunity to address environmental aspects and with theoretical and practical knowledge and general level of empirical information and attitude of people by developing advanced communication technologies make a responsible citizen out of a person (palmer et al, 2002). The research showed that environmental education programs in the formal education environment plays a major role in formal education services (kharam por, 2008).

In a study titled "providing a comprehensive model in the field of environmental education" a comprehensive model is drawn about environmental education". In the results 6 factors effectively became known for environmental education which in order of preference includes sensing-cognitive approach, formal and informal teaching methods, using educational aids, motivate with positive statements, desert education and laboratory method. Ghorbani et al, 2011 in a study checked the role of information technology as a step toward training E-learning in which the results showed education and E-learning as an effective power in social and economic progress has become acceptable and necessary educational system in developed and developing countries to the principal, quickly. On one hand this growth depends on teachers and educators 'application and internet-based technologies and multimedia technology and on the other hand owes this fact that traditional methods of teaching should be strengthened with new methods (Yari and et al, 2013).

In a research the role of virtual education on reducing training costs from the perspective of teachers and university staff and teachers of Farhangian Pardis Amirkabir university of Karaj (qualitative study) is considered that the results showed education system as one of the society consumer institutions every year dedicates large part of the budget for itself; therefore, identification and having exact programming and providing ways to decrease these huge costs will cause economic development of the country.

Tabasi et al 2010 in a research have examined engagement in E-learning in which the results indicates the rapid and increasing growth of information and communication technology led changing of different areas of human life like educational system. With the introduction of E-learning as manifestation of information and communication technology influence in the field of education and the process of teaching-learning, the concept of interaction in the process of teaching and learning had wide developments. Osareh et al 2009 in a research have examined the use of E-learning curriculum development in which the results indicated that the curriculum among the main factors determines the success or failure rate of educational institutions. According to the

innovations and enormous changes in the field of education creation of change in structure and the development of curriculum is inevitable need. A new approach to E-learning created a great revolution in the area of learning. The digital revolution in the field of education to achieve higher goals requires designing and developing curricula according to the teaching methods and E-learning.

3. THEORETICAL FRAMEWORK

3.1. Environmental Education Necessity through Electronic Means:

As the speed increases School curriculum is a fundamental necessity and the only solution may be that young and all segments of society due to the rapid approach of the networks, Internet (actively involved in the learning process and learning environment make the opportunity to enter many areas of information technology facilities. The new technology is widely used for educational purposes to take advantage of modern methods of information technology-based learning as e-learning, the use of electronic devices such as computer audio and video, network, etc (using multimedia tools and simulators) for fast transfer of knowledge, information and awareness and can be used for environmental education. (Outlook of country development program No. 13419-14.03.1333)

Environmental education for children and adolescents has always been a concern in all communities. Although it is possible to teach them how to provide the desired range of electronic transition to the next generation, different views exist. The research shows that the use of VR and virtual environments to help students learn under different conditions. "Bayern", pointed out that the simplicity and naturalness of interaction with objects in a virtual environment makes virtual experience acquisition easier and more profitable than experience acquisition in a real environment. Unlike the sectional training, environmental training is not possible without program, volition, interaction and collective actions and as many environmental threats, destruction of resources contaminated environment are the result of human activity, there is no doubt that continuous training and targeted E-learning make people familiar with the concepts of environmental concepts, it is possible to have a society with environmental conscience and a future with prosperity, health and independence for the Islamic country.

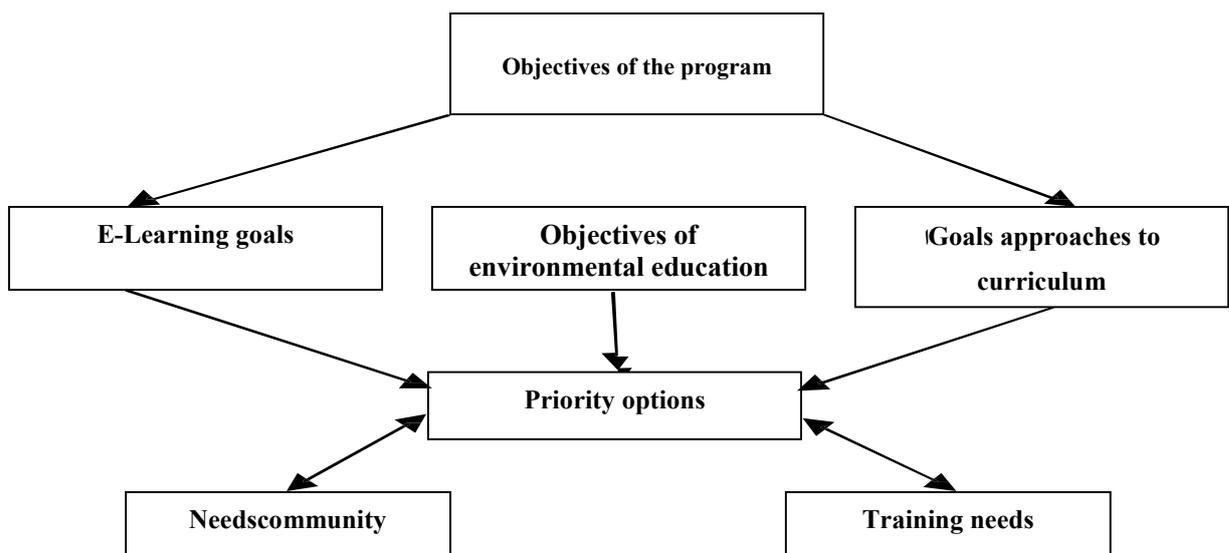


Figure 1: The combination of E-learning practices in terms of approaches to environmental education curriculum

3.2. Formulation of Effective Strategies for Environmental Education in Iran

The main problem is the need for macro level plan. Apart from students at schools, society, among development planners, administrators of urban affairs organizing and people who are in economic jobs should be involved in continuous environmental education. Therefore, a necessary procedure for public education seems necessary. The use of modern methods of it-based training, entitled virtual learning and e-learning (computer education) is an appropriate mechanism for this purpose. Virtual training is one that we can perform educational goals without the limitations of space and time. In addition to training images, video education, slides, or the use of new technologies including educational software, e-learning on the web and the internet and using multi-user virtual environments and virtual reality, simulation and computer games each of which can be somehow effective for restoration of environmental experiences in real life. One of the means of e-learning environment is implicit learning by television. Given the important role of TV as a considerable media and its influence in giving information the media is a suitable base to give information and environmental issues, can play an effective role. Facilities such as simulating reality make the phenomena tangible and make its understanding possible. Also, useful computer games help indirectly the individual attitude to change and also practice decision making by creating different situations and makes environmental experiences for that person. It should be noted, through this software, environmental skills are also taught. In fact, by virtual and electronic education we can understand well the future of environment, make a positive attitude as a responsible person and get prepared totally. Environmental education should follow these steps:

1. The development of knowledge about environmental issues and an emphasis on the relationship between all components and natural phenomena
2. Strengthening positive mood for students towards the environment future
3. Breeding habits and skills related to the environment and to the realization of the objectives of the curriculum; content should increase capability, skills and the attitudes of the students and must not be on cognitive aspect. (Bayat et al, 2012)

Also, a variety of methods in environmental education should be considered in curriculum and it shouldn't be merely on cognitive aspects.

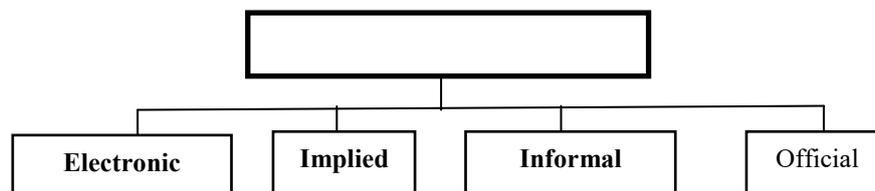


Figure 2: a variety of environmental education in the curriculum

4. METHODOLOGY

Current study looks for a look at the environmental education status in an electronic form from the perspective of different approaches to curriculum in Iran, the descriptive method (qualitative) and analysis of documents is used. According to the research method, research community includes all documents, documents and internet resources, library and other resources related to the subject. Obtained data are qualitative; therefore, qualitative analysis in order to analyse the data is used.

4.1 Approaches to Curriculum According To Miller and the Environmental Education in an Electronic Form

Miller, 2000 in ratings of approaches to curriculum and in central format from outer dimensions to internal dimensions referred to Seven behavioural approach and Ability-Oriented Issue-Disciplinary, Social, Growth-oriented, Cognitive, Humanistic and meta- individual And in each of

the ideals considered Attitude towards learning, teacher role, attitude toward assessment of learning.

In this article, the environmental education status by Electronic way, is presented:

Provided that: The role of environmental education in an electronic form in behavioural and ability-oriented approach:

In this approach, Specific behaviour and the ability to react to environmental stimuli is considered as the most important goals and training program in a manner designed for subjects has special attention. It is the training program in the field of environment that is framed sequentially and in every face with the frame sees stimuli and answers as a feedback and may continue his way or because of some mistakes may go back to the old frame in order to regain the ability for keeping on.

41.1. Subject- Disciplinary Approach:

This approach in terms of epistemological foundations has some similarities with the previous approaches (behaviour and the ability -oriented). Because in both of these approaches, learner is served as empty-minded creature that mission of teacher and the education system and one-way transmission of content including skills or basic information is toward him. Accordingly environmental education in an electronic way can range more in the time and place and prepare transfer of basic skills in a group learning and decrease remedy of inputs which are needed to decrease variance for appearance similar learners. In this approach, environmental design and educational software package by teacher and unilaterally is possible and makes evaluation feasible through response to digital drives. Taking advantage of animation and some video software in the field of environment and the possible activation learning senses in all aspects of hearing and vision senses as well as the student movements in interaction with computers or mobile are considered as instrument for assurance in more learning. In addition, fast and explicit computer feedback and personal interactions of students one by one can correct the learning difficulties quickly.

4.1.2. Growth-Oriented Approach:

An overview about environmental education in an electronic form in this approach can use computer and other electronic devices when the learner is in learning environment. Because learning environments in this approach, should be designed in a way that it is not cognitive emotional, moral and religious and there is no stop or delay. Accordingly if emphasis is on interaction of learners in classroom environment or participation in extracurricular activities like visiting the parks, and etc. emotional development and aesthetic aptitude is considered. However, providing individual digital cognitive puzzles or incentives evokes a child's thinking and reasoning and breeding cognitive aspects of learning can be effective but paying attention to horizontal edition curriculum and overcoming integrated approaches to curriculum can challenge this usage and deliver it among learners makes social interaction, teamwork, and training aspects of considered emotional dimension.

Cognitive Approach:

Although this approach can include different perspectives and similar views based on defense of 3 (Karl Braytr), using organized patterns and deductive thinking(David Azobel) , lateral thinking (Edward Doyonu) inductive thinking (Hilda Taba) and other views like Floyd Robinson so all of them focus on the development of thinking skills and strengthening cognitive skills. In addition, defenders in this approach like Brayter believe that personal growth of students should be delegated to parents (Miller, 2000, p 159).

Humanistic Approach:

Humanistic approach is rooted on two dimensions of positive self-nurture and growing interpersonal skills and concepts such as empathy, originality, respect, and self-actualization which is further emphasized by theorists of this approach, it seems that utilizing tools like some previous



approaches are not considered. Despite these issues, the use of electronic and computer training cannot be totally rejected by this approach. It is also necessary to provide models through videos and digital art. For example, the animation in the field of recycling or present stories and memories which are electronically transmitted to the audience, can achieve the ambitious goals of the program.

Meta-Individual Approach:

To strengthen some basic approaches, as the basis for the activation of endogenous capacities and training all the celestial bodies, subtle childhood is needed. It should not be possible to use individual methods of digital education in this approach completely. Because it views this approach as Waldorf curriculum subjects such as chemistry, physics and biology common issues, ecosystems and can be educational software to develop independent judgment, abstract thinking, and a critical assessment of the benefit.

5. OFFERS

Unstable growth has led poor utilization of resources and environmental degradation. Culture of proper use of resources, is the best solution to deal with the indiscriminate use. The education of children and students in the educational environment of the school is very important and given that training is one of the most influential factors on the development of each country, measures a broad, comprehensive, continuous and inclusive action in order to increase awareness of the environment and is one of the basic ways to introduce the importance of environmental issues and natural resources and the preservation and restoration of the above issues reflected in the texts and curriculum. If we are successful in teaching the concepts of environment, we must have a clear opinion about the position and the role of E-learning curriculum awareness. In teaching, no learning theory and curriculum approach can be accepted as conclusive, and it is only by responding to all the issues of E-learning environment. Therefore, addressing the different approaches to curriculum and students can be given by the circumstances and certain techniques used for environmental education. This may be matched with one of the approaches to curriculum or combination of them.

6. CONCLUSIONS

Today's environment on planet Earth and the mainstream set of living conditions and human activity has undergone profound changes and sometimes abnormalities has made some consequences to scale destruction and pollution of local, national, regional and international levels.[L9] . This study is looking at the status of environmental education in an electronic form from the perspective of different approaches to curriculum and answers the questions of whether today's E-learning adds the fundamental importance of the recognition of environmental and natural resources and ways to preserve and restore it through education and reflection on these issues in textbooks and curricula to the various components of Howe's approach. [L10] Miller's emphasis is not the same size. If everything in the range of approaches to provide a behavioural approach and the ability to move beyond the approach is possible, taking advantage of e-learning is reduced. However, it should be noted that in developing curricula in a manner which is not limited to approach, unit variety of approaches according to program context will be interesting. [L11]. In theoretical aspects it is important to identify the precise goals and objectives, audience and his needs, and analysing content from different perspectives, such as perspective of the subject. Accordingly, it is The editing and presentation of films in order to overcome internal and external challenges and to provide the ability to overcome life's challenges based on their software and think about their ability to create, promote self-esteem, self-actualization and effective development and to achieve the ideals , humanistic approach should be followed. The use of audio and video anti-stress software can be a tool for the whole of the person in the path of transcendence and spirituality. If we are successful in teaching the concepts of environment, we must have a clear opinion about the position and the role of E-learning curriculum. In teaching, no learning theory



and curriculum approach can be accepted [L12] unless by failing to respond to all the issues of E-learning environment. Therefore, addressing the different approaches of curriculum for students can be given by some circumstances and certain techniques used for environmental education. This may match the approaches of curriculum or combination of them.

ACKNOWLEDGMENTS

None.

ETHICAL CONSIDERATION

Authenticity of the texts, honesty and fidelity has been observed.

AUTHOR CONTRIBUTIONS

Planning and writing of the manuscript was done by the authors.

CONFLICT OF INTEREST

Author/s confirmed no conflict of interest.

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