

## **Effectiveness of Management of Environmental Education on Improving Knowledge for Environmental Protection (Case Study: Teachers at Tehran's Elementary School)**

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**ABSTRACT:** Management of environmental education is the most fundamental method of protecting environment which is intended to increase awareness and to make individuals sensitive to the physical, economic, environmental, social and political events and changes. Thus, with powerful tools of identifying and describing environmental issues, the individuals can obtain skills for devising methods and solving environmental subjects. To do so, the most appropriate method and best system is to provide materials and manner of activities and implementing a structure which paves the way for improving environmental knowledge across the society until in such a way an individual considers himself as responsible for protecting the environment. When the attitudes, values, commitments and environmental support begin to form since early ages, they couldn't be changed and continue to the end of the individual's life. Therefore, a school's cultural staff, especially teachers can play effective role in creating new behavioral patterns for their students because a large part of environmental education could be materialized by modeling. The current research aims to evaluate the environmental knowledge of teachers at Tehran's elementary schools because teachers' knowledge of environmental issues and teaching them to the students reminds us the fact that environmental education can, in long term and mid-term, from public opinions in such a manner that can play its controlling role within the society in order to protect the environment.

**Key words:** Education, Environmental education, Improving knowledge, Environment, Teachers at Elementary schools

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### **INTRODUCTION**

Nowadays, having a healthy environment and protecting of it, considered as one of the most important concerns of human. Having access to a healthy environment has also been regarded as a human right just like the right of living and individual freedom and political participation. While ensuring a secure environment for all, it imposes the duty of avoiding such activities which destroys environment for individuals, organizations, companies and government (Firoozi, 2005). With expansion of new technology in addition to providing various kinds of facilities for practicing in the environment, it may cause some damages to the environment.(Javadi, 2008). The environmental damages have been considered as one the most severe problems and crises in the world because They may have considerable outcome on the

quality of environment and some changes in the quality of environment and make some changes to the ability of environment for protecting an acceptable quality of stable balance for the environment (Ghasemi and Heidari, 2011) and human being is considered as the main factor influencing on the environment which himself or herself is significantly damaged by environmental crises. Most of the current environmental predicaments are rotted from the lack of required awareness and cultural weakness in terms of human relationship with her/his neighboring nature and is considered as a kind of cultural problem. Thus, in order to reinforce and strengthen the culture of environmental protection, there should be a national and international common sense among different classes of society (Shobeiri and Meibodi, 2013). Since environmental protection is materialized when people

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effectively and wisely participate in it, the public opinion possess a little information on it. This is while the majority of society should be encouraged to identify the environmental problems and issues and actively participate in protecting their neighboring environment (Marzso, 1980) That is one of the appropriate grounds for materialization of people's participation in protecting the environment and environmental education. The environmental education should be considered as an important issue especially with respect to the effects of humanity on environment. Also, it has been considered as one the best tools of creating awareness in the society in terms of increasing sensitivity, consideration and public knowledge on environmental subjects (Shobeiri and Abdollahi, 2009). Beside the destructive effects and increased environmental damages, preventing from damages on environment, optimal utilization of the existing sources in the nature and all of the respectable efforts done on surviving the environment and its health together with creating balance in the life of human being, requires also avoiding many functions which destroy the balance, fitness of the environmental elements (Tarimoradi and Fakhlaie, 2006), the environmental education can significantly influence on reinforcing the environmental culture and could be used as the key tool for paving the way to change in knowledge, values, behaviors and, in general terms, manner of living . In Iran, which is mostly comprised of young population, the environmental education can significantly reinforce the environmental culture and as the students , they play an important role as the individuals building the future of society, the teachers, through establishing a deep rooted emotional relationship with them can play a prominent role in developing the habits and skills related to the environmental protection and provoking the students emotions and interests for making the intertwined with nature and protection. Experts suggest that training of some issues like observance of personal healthcare, social subjects environmental protection and sense of responsibility for them should be started at childhood since it has been seen that those students who were taught under above trainings during primary education would have more basic rational and social capacities in the future. (Araghieh *et al.*, 2012). Given this fact and with respect to the especial role played by the education management in promoting student's in reaching the goal of the environmental protection, the current descriptive and cross-section study was done in order to evaluate the knowledge of teachers at Tehran's elementary schools and the environmental issues and the methods of promoting awareness. Therefore, the current research was intended to determine the awareness level of the teachers by such underlying variables as gender, age and education level. The other objectives of the research include: investigation of applied method for

increasing interests and promotion of teacher's awareness in relation to the environmental issues, the teachers' knowledge level of the environmental troubles and evaluation of the educational efforts done by Department Of Environment, effectiveness of educational matters, investigation of educational failures on the environmental issues in elementary schools. The current research found that updating environmental knowledge of teachers and transferring their teaching to the students can lead to institutionalization of the teachings among the students .Finally, this can create positive responsibility in the environment, transfer and publication to other classes of the society and generation.

## MATERIALS & METHODS

The current research which was done in order to study the level of knowledge and awareness among the teachers of elementary schools in the environment utilized a field research designed with a descriptive-cross-sectional method. The sources used to write current paper include library investigations, internet sources, participating in the seminars related to subject of the research, referring to the legal department of the Environmental Protection Agency through setting the questionnaires and collecting data. The tools for collecting questionnaires data include two parts: the first, personality characteristics of the respondents and second, some questions on responding to the main and secondary objectives of the research. The statistical community of the research includes the teacher's working at different education districts of Tehran city in girl and boy elementary schools. With respect to the cultural, social and economic differences of the districts, the sampling was randomly done in districts 1, 5, 11, 14, 20 located at northern, western, central, eastern and southern Tehran. Totally, 2500 questionnaires completed by the cultural staffs of schools were collected. Next, having been confirmed with a higher reliability, the existing data were codified by EPI and SPSS. Then the data was analyzed by certain tests. In all of the Figs. vertical and horizontal axes represent the amount of percent and discussed factors respectively.

### 1-Particulars of the respondents

First, the personal characteristics of the teachers were separated in terms of age and educational level.

### 2- Research findings

In terms of gender, men mostly comprise those with higher level of environmental knowledge. In terms of educational level, almost half of the men possessed a bachelor degree or higher one. In the other words, the more education level increase, the more environmental awareness increase. As the higher percentage of the respondents don't devote a certain time for public

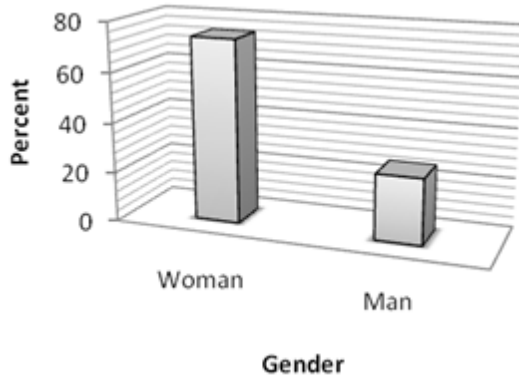


Fig. 1. Separation of the respondents in terms of their genders

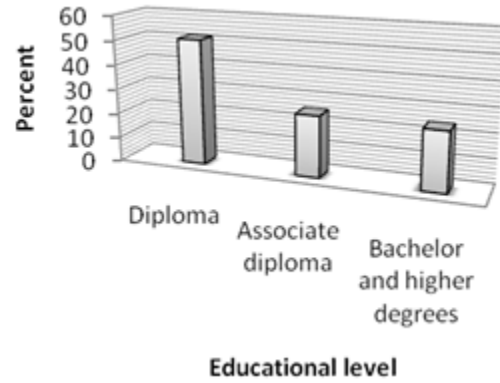


Fig. 3. Separation of the respondents in terms of educational level

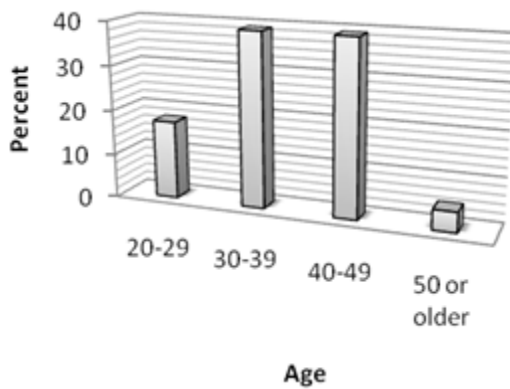


Fig. 2. Separation of the respondents in terms of their age

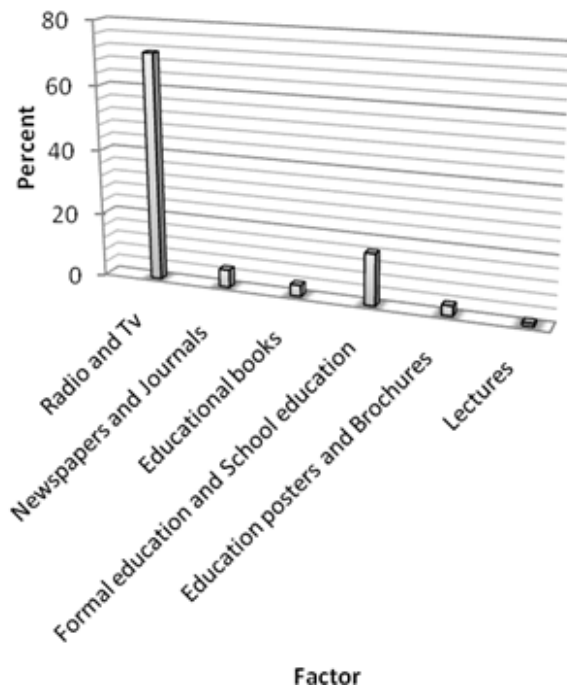


Fig. 4. Best method for education of environmental issues

information study, it could be said that information thorough books and journals couldn't sufficiently be helpful. Since many individuals were working on the leisure time were spending their time on watching TV, this mass media can significantly increase their awareness. Although, there are individuals with higher public studies in the target society, their studies haven't been directly toward environmental matters that indicates poor information on environment. In the other words, the survey done among the teachers indicated that the best method environmental education in the society is to use TV and mass media. Fig. 4 indicates this finding. Additionally, the statistical community had little know of the environmental damages, methods of compensation for damages against the environment and devices for supplying compensation (Fig. 5). It is recommended that sufficient reinforcement, development and advertisement be done for identifying such cases.

According to the survey, the teachers considered the lack of information and unfamiliarity of people on environmental subjects and possessing insufficient information on the method of environmental damages

compensation as serious predicaments. A lower percentage goes with lack of regulation and inappropriately practicing the regulations. This is an evidence of needing extensive environmental education on all aspects and levels across the country.

Since most of the individuals under study considered that Department Of Environment as the main trustee of protection of the environment, objectives of the environmental education and identification with compensation of environmental damages could be materialized only under shadow of planning and setting a good strategy in the organization. Additionally, the statistical community is not sufficiently familiar with the educational efforts done by Department Of Environment.

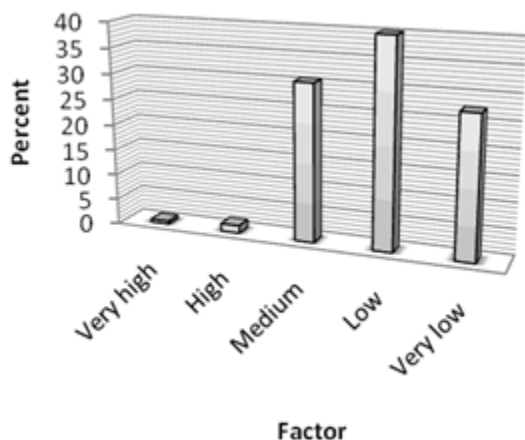


Fig. 5. Familiarity with environmental damages

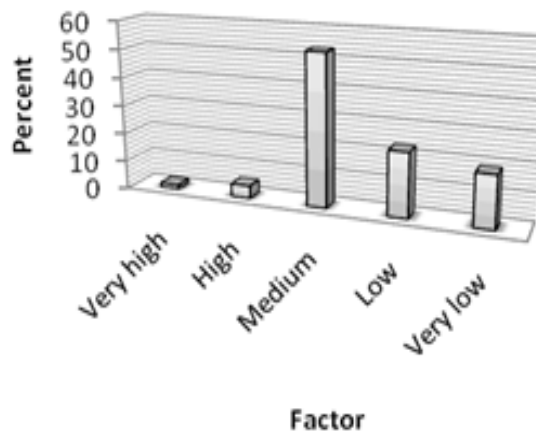


Fig. 7. Familiarity with educational efforts done by the environmental protection organizations

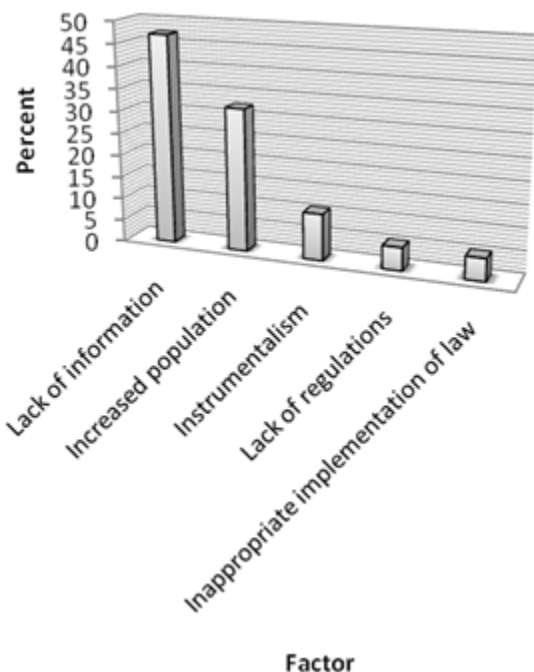


Fig. 6. Basic predicaments of environment in the country

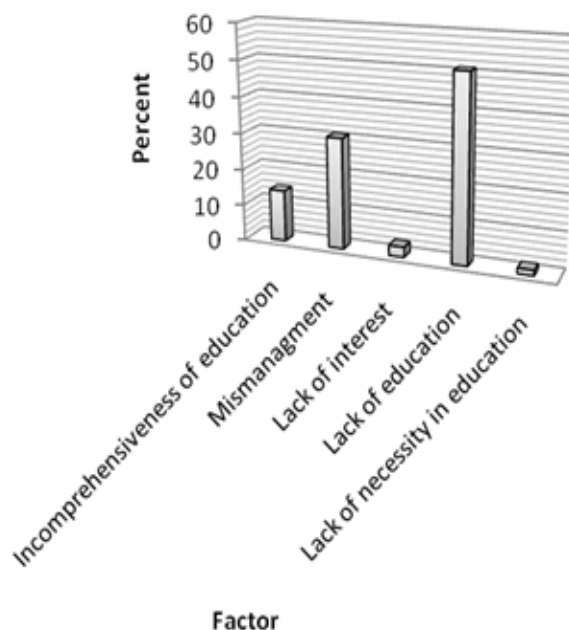


Fig. 8. Main reason for dissatisfaction of the educational efforts had done by the organizations responsible for environmental protection

This represents the necessity of information together with advertisement (Fig. 7).

Most of the teachers thought that dissatisfaction of educational efforts done on environmental matters is arisen from lack of sufficient education for people, mismanagement and insufficient organizing which themselves need to be strategically be planned in order to reach their objectives. The results showed that the teachers don't possess an appropriate level on environmental knowledge, attitude and skill. The cultural staff at schools who are responsible for education have understood the significance of this issue. Thus, it seems necessary for the teachers who participate in service

education class in order to promote their environmental knowledge and skills so that a kind of satisfied attitude toward environmental subjects could be established among them.

## RESULTS & DISCUSSION

Having analyzed the data, the result of the current research indicated that providing the teachers with targeted educations on environmental subjects significantly influences on enhancing their level of knowledge, attitude and skills. As directors for the future generation who stand most of the time on teaching students, the teachers play a significant role in

transferring the knowledge to students. If they have the higher level of knowledge, attitude and skill on environmental issues, they will be able to complete their respectable missions for the environment while also, teaching their students as future managers who will respect their surrounding environment and will try their best to protect with divine safe keeping. Additionally, environmental education gives one of the most basic educational needs of the teachers at elementary schools. However, given the fact that the teachers at elementary schools possessed a low level of knowledge, attitude and skill on environmental matters, the weakness might be due to in significance of the issues related to environment reflected in elementary schools' curricula and the teachers didn't regard themselves as required to learn it. Also, this requires more research on this subject.

#### 1-Environment

The environment is a divine gift which is comprised of a set of sources, congruent reasons and situations around alive creature and continues life of human being depends on it (Ghasemi, 2006). The environment has been defined as a setting which involves the process of living while also, interacting with it. And it is built of the nature, human society and the environment made by human hands and thoughts. Also, it includes all the living space on the earth ( Bahram Soltani, 2008). During recent decades, the subject of environmental damages and protection of environment against the damages has become one of the most vital issues of the globe which if this regarded can significantly threaten the human life. Therefore, the international and domestic organization and communities have focused on this issue. One of the most prominent example of this damage is the contamination and destruction of environment which itself has been due to the contributions of industrialization among the human societies. Therefore, developing countries play a little involvement in creating this phenomenon. The Changing behavior when facing the environment and protecting it, is related to gaining environmental education. Hence, with this description, public education and awareness in relation to environment is vital due to education and communication are the basic of materializing environmental objectives in different issues, education and communication are the rings of the connection between people and the environment and Social responsibility and peoples' participation in protection of environment will be created (Karimi, 2004).

#### 2- Education

One of the reliable tools for improving performance quality and solving organizational predicaments is the education, lack of which creates various problems in the organizations. Hence, in order to twin and equip the human forces, making them optimize and making the effective

use of them associated with education is the most influential factors which includes a set of activities providing learning activities for the individuals so that they can obtain the skills required their job and improve them (Farris and Stancliff, 2002). In the other words, education is a process which makes changes in Information, knowledge ,attitude, behavior, skill and employee performance through measuring the needs, designing the course and theoretical and practical teaching together with measuring the learning level in order to better ready and performing job responsibility and play the role of employees (Mirkamali, 2006). However, nowadays learning is considered as the origin of obtaining score in the competition area and it's the core of education process (Najafi, 2011). since the process of transferring knowledge, attitudes and skills of an individual and groups to other groups for making changes in their skills, attitude and cognition structures is vitally valuable (Sadri, 2004), learning and education have been considered as the most important psychological phenomenon. The human beings of the present age in comparison to previous centuries, dominate his or her surrounding and all of these achievements should be regarded as owing to educational learning (Parsa, 1997). Learning education are the major mechanisms of human source developments in the organization and economic cooperation which always have been considered by the experts and managers of education (Najafi, 2011). With respect to the importance of environment and its vital role for development and progress in diverse countries including the third world countries, appropriate utilization of environment in Iran can ensure a stabilized development (Mirdamadi *et al.*, 2008). So, appropriate utilization could be materialized under environmental education because educational environmental issues has been recognized as the most fundamental method of environmental protection, the aim of which is to recognize human duties toward environmental issues understanding environmental values, supporting justice view points and trying to prevent the environmental problems. In the other words, environmental education is the systematic process through which the learners can criticize the environmental matters through direct experience and could be encouraged to join the scientific activities for the environment (Lahijanian, 2012) because the environment with its rich sources hasn't been created just to be used by one or several generations, but it is a trust provided to each generation which should be delivered to next generations through appropriate protection and utilization. Therefore, each person needs to regard protection and maintenance the quality of environment and natural sources. Permanent utilization of environment depends on the fact that how much ecology and living system and variety of its species should be protected that it couldn't bethreatened due to overly utilization of

the natural environment by the person. Thus, individuals should be learned the required knowledge for the protection of the nature and significantly increase his or her ability of appropriately using the natural sources. So that, he or she could be insured of survival of varied species and kinds of ecosystems for the present and future generation (Habibi, 2005). Environmental education is vitally important in improving human life because it makes the human being to sublime through flourishing his or her talents. Given the speed of change and development in the organization and other parts of society, observing environmental education must be comprehensively considered. Understanding the importance and necessity of public education on environment will be clear when the reality that environmental education increases public knowledge and awareness of human utilization of nature, obtaining the required skills for protecting the environment and making the individuals responsible for reaching a healthy environment and being committed to protect the environment for future generations should be regarded (Zamani Moghadam and Saiedi, 2013). In recommendation by the International Union for Conservation of Nature and natural resources (IUCN), utility and emergency of educational environmental issues for all education levels have been specified (Fourseliyousystem, 1985). UNESCO, as one of international organization included the education on environment in its activities. In 1968, and international conference on the scientific principles on appropriately using and protecting natural sources was held. The international program of Man and Bio sphere (MAB) enacted in 1971 and implemented emphasizes on the technical educational and scientific aspects of using nature and natural sources (Ghazvini, 1986). The declaration with 26 articles on human environment which was enacted at first conference of the united nations in Stockholm in 1972 and the first common declaration of 113 countries on the commitment and observation toward human environment, were stressing on education of the individuals within age groups together with promotional scientific researches on environmental issues (Bromand, 1991). Principles 19 and 20 of the declaration were emphasizing on education and scientific researches and the role of mass media in making the awareness and ability (Sarmadi, 1998). In 1975, at the international workshop of education on environmental development held by the UNESCO, the main policies of the global program of environmental education were established (Bromand, 1991). United Nations environment program (UNEP) included the investigation and information on environmental education within its agenda. In intergovernmental conference on environmental education held at Tbilisi in 1977, the declaration on environment was enacted and the international cooperation on the matter was considered (Ghazvini,

1986). The declaration issued on the role, goal and principles of environmental education and guidelines for development of environmental education at the national level. (Bromand, 1991). In the chart called as 21st guideline formulated within 27 principles in the conference of environment and development 1992 in Rio de Janeiro, the role of education and participation of individuals in solving environmental troubles was considered. Principles 9, 10 and 21 cover this important issue. Principle 9 stresses on the necessity for the exchanging technical and scientific knowledge in order to promote the level of the development, adaptation, publication and transfer of new technologies for reaching the objectives of sustainable developments. Principle 10 focuses on active participation of people and principle 21 regards the role of the youth in global participation and reaching sustainable development (Lavasani, 1992). At national level environmental protection by education has been stressed. The grand movement frame work, type of outlook by the government and function of the nation in terms of issues including environment within the national agenda of the nations recognized as the constitutional law has been manifested. In this regard, the constitution law of the Islamic Republic of Iran is considered as the leader of this vital issue with one of its principles devoted to environmental protection. Additionally the law reflected its national will for protecting the natural heritage. The other important facts are that environmental protection has been regarded as the public duty the responsibility of which is taken by the individual organization and people of the society, civil and public institute. Also, the governmental officials, policy makers, craftsmen, farmers, women, men, elder, children, adolescents are also responsible. Furthermore, environmental protection has been prioritized over developmental economic activities. If there is a conflict between these two, the economic development should be destroyed (Karimi, 2004) the law of protection and optimization of the environment has pointed out the necessity of educational plans in order to promote the public culture of protecting and optimizing environment (Taghizadeh Ansari, 1995). Regarding the role and importance of environmental education for the individuals, the education center must be due more in order to develop the thinking ability of the student on environment while also, providing opportunities that the students can utilize their reasoning capability for solving their environmental crises (Glasser, 1969). because the mission of the education system as one of the social systems is to transfer the cultural heritage and human experiences to the new generation, make desirable changes in recognition, attitude and behavior of the learners. The effectiveness of knowledge transfer to new generation in education center requires recognition of objectives, education principles, characteristics of the students and teachers, lesson

plans and method of education and development. Today, the education system has different tasks and functions across the globe and is considered as a tool for materializing the social objectives of the nation, the most important of which include reinforcing students' spirit toward environmental protection (Safi, 2006). Especially, if the students must take responsibility for protecting the environment and nature while also responding toward it (Stocking *et al.*, 1999). The experts recommend that educational such issues as environmental protection and responsibility toward it should start since childhood (Shafi Abadi, 1994) because it has been seen that those students gained perfect education on environmental matters in elementary school will possess social and logical competency for their future studies at higher levels (Yarmohammadian, 2003). However, learning is significant when the students learn what in his or her education can utilize it during his or her routine activities. This learning method is called as active learning in which the teacher plays the role of facilitator and director while also being regarded as the main pillar of developing the spirit of environmental protection among the students (Kiamanesh, 2004). In addition, the environmental education should be done by the cultural staff in order to make the students reinforce the behaviors of the fans of environment and in order to weaken the behaviors against the environment (Sanaye Goldoz, 2004). Therefore, in order to promote the level of knowledge of teachers on environmental issues and to reach the objectives of environmental education to long term and short term strategies should be formulated at schools. In long term strategy, the educational plans of environment should be reviewed and the new method of education and learning environmental sciences should be implemented. In order to implement the effective and efficient method which are consistent with our culture, a typical plan should be formulated and implemented for all educational levels. For short term strategy, the current problem of environment should be solved and the plans should be consistent with objectives of short term and long term strategies. In addition, in order to reach comprehensive results, the educational needs of all groups including the teachers at different levels should be recognized. Having determined the applied priorities and indices, the way should be paved for improving environmental awareness and using combined methods together with cooperative with the respective organization. Hence, hopefully the vital goals of environmental protection will be reached (Hadi Poor and Shokravi, 2004).

## **CONCLUSIONS**

The research findings indicate that in education of environmental education includes, all social classes and groups and we can't deprive any social class with

any reason. Also, teaching environmental courses isn't limited to a responsible authority and doesn't fall within a particular institute. But also, all the educational organizations and agencies are responsible to teach environmental knowledge based on their potentials. Environmental education is the most effective tools and method for increasing awareness and knowledge in order to deal with future challenges, especially in respect to protecting environment. Thus, holding educational workshops of environments in the in-service Teacher Training Programs in different educational levels sounds necessary, so that to create sense of healthy competition in them and motivate them to learn environmental knowledge and active participation in educational courses through holding games and granting gifts. Due to the fact that shortages of environmental knowledge of teachers stems from lack of deficiency in the education system, it's recommended that most of education publication will be devoted to instructive and useful materials for increasing environmental skills of teachers and education authorities. Based on the conducted survey among teachers, the best environmental education in the society is to use mass media and TV. With collaboration of broadcasting, some of public information about environment and natural sources can be transmitted through displaying education films. Also, environmental education during elementary periods has a great impact in creating environmental attitudes in students because during childhood, students possess enough potential. Thus we can foster lifelong and unchangeable environmental attitude in them. The change the environmental education through integrating these educational sorts in the educational system of the country, improvement of environmental knowledge in schools and Universities through implementing constant educational programs in the field of environment and Environmental education in the form of educational films and audiovisual productions and educational technology, especially puppet performances are beneficial in enhancing the impacts of environmental education for protecting environment. It's noteworthy that we can rely on the impacts of educational education in the protection of environment that positive change in human's behavior attitude towards the environment emerges and improper human's behavior towards the environment reduced significantly and environmental protection to be regarded as a valuable and important factor in the society.

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