

## **SURVEY OF DISTANCE EDUCATION ROLE IN UTILIZATION OF ENVIRONMENT COMPONENTS IN HIGHER EDUCATION**

**Seyedeh Zahra SHAMSI PAPKIADE**  
(Corresponding author)

**M. A. Peyam-Noor University,  
Department of Environmental Education,  
Tehran, IRAN**

**Associate professor, Seyed Mohammad SHOBEIRI  
Department of Environmental Education,  
Peyam-Noor University,  
PO BOX 19395-3697 Tehran, IRAN**

**Associate professor, Mohammad Reza SARMADI  
Department of Education, Peyam-Noor University,  
PO BOX 19395-3697 Tehran, IRAN**

### **ABSTRACT**

The aim of this research is survey of distance education role in utilization of environment components in higher education. This research in phase of goal is applied and in base of research method is a descriptive survey. Statistical society in this research is student of TEHRAN PNU university in 2010-2011 that research method is in base of stratified sample .this selection has been done among ten provinces that had the most frequency at these universities. It has done with MORGAN formulation for four hundred people. Gathering instruments of information is questioner, which is in base of the research purpose. ALFA Cronbach's was used for durability and validity ( $\alpha=0.86$ ).in this research statistical method is descriptive and inferential with SPSS (one-sample T Test). Results illustrated that students believed distance education does not have any role in effect ions of environmental education and Independent-samples T-test shows that distance education instruction will change the environmental behavior of student to achieve goals. Also in view of responders, there are barriers in distance education utilization for performance of environmental education.

**Keywords:** Distance education, environmental behavior, higher education, environment education, constant improvement.

### **INTRODUCTION**

Recently, increase of society does not estimate in base of past scales rather constantly of society to environmental problems and protection of natural resources, observance of constant progress scales and protection of Environmental variety that means protection of nature ,progress of Culture as a basic scales for estimating of society increase.

**In the world, constant progress, protection of resources and environment pay attention to nature ecology unification and society as a tow variable goals, Not only among countries, so in the residential globe (Sholtez, 2007:292). The environmental thought of land maybe much more desire of human, but it will not possible unless with promotion, widespread publication and continuum of Environmental education among diverse classes of society.**

**The first step in explanation of environmental education is instruction that it's rang is flexible among urban environment to complex forestall and ....and the most important difference between new education to traditional education are increase of desire to participation of citizens in management and organizing of environment with increasing of knowledge, awareness and change of their behavior that all of them are problems, though in this world education has a different meaning. Science and technology made the necessity of evolution undeniable in process of education activities. We cant regard to learners and their training with past attitude. Nowadays, educational system should train forces. They should be enabling for perception of complex world also is creative in management and leadership and behave logically (Shabani, 2005:67).**

**So, for answering to economic, social, cultural and environmental needs, society should have made basic evolution in education system (Alayi, 2003:373). Because it is the affective factor for using of whole past saves, increasing of qualification and making the necessary skills in people for having a best life.**

**Today, the most experts believe that one of the factors for progress of society is public education offer. But, the most countries cant offer the public education with using of personal education because population increasing is the most factors for lack of skillful education staffs and demand face to face relationship between learner and instructor, and capacity of limited acceptance in personal education system. So, one of the possible way for offering of public education is utilization of distance education. (Salmani, 2008; 6).**

#### **THE EXPRESSION AND NECESSITY OF RESEARCH**

**Always nature and environment, that are field of life: s human, have special importance of technology, industry and population, irregular utilizations to resources which endanger human. In according to instruction will be the most effective tool for contrasting to future challenges, especially protection of environment. One of the manners to challenge with this great danger is pay attention to education. For achieving to this important goal, centralization and focus on affective training are essential and it needs recognition to scales of environmental education. Because, despite of objective tensions in base of environment, people should adapt themselves to environment that its root is extremely consistent. It s because of that, education is able to prepare a suitable basis for improvement and progress of developing countries, also necessary policy for challenging to tension among local and national areas. Despite of Speed and rate of scientific production, modern gathering manners, analyzing and publication of information ,increase of society to utilize various information , they caused to creation of social term that calls information period,wh ich its affections on divers scales ,obvious completely (Montazer, 2002:176).**

Distance education is sample of system that is result of technology, s progress of communication. Distance education i's manners were been famous in the end of twentieth decades .obviously, increase of needs in continuum instruction and ovation of new manners in science and communications, caused to distance education turn into the most activities in field of instruction (Tafazoli moghadam, 2009:219). Rather to mechanical life with anxiety such as: place, time and distance, this kind of education is needed.

Ebrahim Zadeh (2004) Believes that the movement to creation of changing in traditional manners and utilization of modern Technology, that should be start from higher education to bottom for instance preschool against whatever that is usual ,can emerge from higher education at university.

Because preparedness for using of knowledge and modern technology, which is in base of research efforts and thought result, is more than other s education.

Based on the view of attar an. electronics communications technologies to be extended, they involve changing the learning and education infrastructures based on time and place states. Clearly, while, technologies such as electronic learning adapted professors face the challenge and this involves potential capabilities for changing the trainings and structures.

By adapting training system and promoting the science and technology and communications the future will be optimistic training can pave the route for any situation to be progressed and make a decision facing the crisis in the level of national and world wide. e- Learning is a typical created by these technologies and burgeoned in the last decay of 20 century. In other words, need to cover these problems and enhancing the level of skills and science entails the emerging of it and based on this, e- learning is of help to adapting technology and more advanced things and this is taken into account in the programs of audience and students as well as cases the respondent reaction toward this to be more accepted. In addition, cases the ways to be more comforting for authorities in the realm of recognizing the problems. Eco- system must be operation for public and specialized. (Nemati, 2009:25)

For learning-teaching in curriculum and in base of environmental problems for students and other audiences, also it can help programmer and officials of higher education for environmental education to identification of guide lines and effective activities. That reason is, environmental education should turn into continues current for general and particular. Distance education and its planning in the society consider as undeniable necessity for transferring of knowledge and information, which caused to advance the Goal of environmental education.

#### **THE RESEARCH OBJECTIVES**

- Does distance education change students' environmental behavior?
- Does distance education cause environmental education, effectiveness in students?
- Does utilization of distance education achieves to environmental education goals?
- Study of barriers for utilization of distance education to Performance of environmental education.

## RESEARCH QUESTIONS

- Q1 Does distance education change students' environmental Behavior?
- Q2 Does distance education cause environmental education effectiveness in students?
- Q3 Does utilization of distance education achieves to environmental education goals?
- Q4 Are there barriers for utilization of distance education to Perform environmental education at university?

## BACKGROUND RESEARCH

Jahanzad Farahnaz offered a suitable thesis for development of environmental education in order to motivate with use of Virtual education .her thesis is about "study of virtual education' role in complement and development of environmental education at PNU University (2009) in grade of Master degree." That result is consist of teachers and educational experts Believed that utilization of virtual education for development of environmental education is so important ,but the importance of this kind of education is less than others. Also, they believe that virtual education' utilization in environment education is so effective. Virtual education utilization of environmental education' goals is so important. it shows that virtual education' ability fulfills environmental education goals. Also responders believed that recent barriers for utilization of virtual education in order to environmental education, performance, are lack of financial advocating, this advocating of students for using of ICT, not to be enough communicative foundation for virtual space, dissimilarity of recent facilities 'communication technology with student 'needs, the internet band for technical education.

Taghavi, Marzieh presented a modern educational approach to high school about high school administrators attitude in Tehran .her thesis is" the survey of utilization barriers to virtual education in high school about high school administrators at SBU university in Tehran(2004-2005)". The research results show that related factors such as: financial, technical, man-made and organized ,are barriers as administrators viewpoint exception of resistance of school 'administrators than presence of virtual education development inside of traditional education. There are four factors about evaluation of deterrence rate, that are consist of equip mental, financial, social and man-maid factors. Rezaie Iraj researched as" the creation of motivation and needs in various audiences for improvement of effectiveness in virtual education at SBU University in 2003". This research explains suitable misperception of audience about wasting of financial resources and time as a main factor in environmental process that is caused to irreparable damages to nature .there for tow solutions should analyze in order to develop awareness, recognition of people about environmental problems.

- Economical, cultural, mental and religious factors should be used for making of motivation in audiences.
- Offered program imitates patterns to attract audiences comfortably.
- Motivate audiences consider as the most central department in education and all of our efforts won' t be affective until audience does not have any motivation for Learning.

Yaser zahtab E yazdi, study is "awareness, rate, attitude and Professors, environmental behavior through descriptive and Survey manners". It was done in Tehran, in grade of master through descriptive and inferential manners. Results presented that Professors have a suitable awareness Attitude and behavior regarding to environment, also awareness, rate has a basic role for determine of environmental behavior. Professors' environmental tendency affects their behavior male professors have more trend than female, but female professors have more positive attitude and behavior than environment, it is against of male Professors.

## **METHODOLOGY**

In base of methodology, this research is descriptive with survey approach because researchers, goal is explanation of everything that should be in descriptive approach and researcher tries that achieved situation be objective which calls descriptive detector. This approach pays attention to study of qualification and people characteristic in the society (Hafeznia, 2005:62). It, s for that reason, this approach goal is description of situations or elements of that could be for recognition more than available situations or help to decision making approach (Sarmad, 2007:82). Survey uses as analyzing of society qualifications, this kind of research studies situations' nature, relationship between events and present situations (Sarmad, 2007:82).

### **Statistical Population**

In available research, all PNU university studies in each department are as Statistical population (with 102090 people) in 2010-2011. The selection of this kind of group as research population are for that reasons :

- Acceptable society for researcher.
- Qualifications of PNU University as free and distance education.
- Tehran PNU university has the most frequency in discipline and tendency, also educational grads between other universities and other provinces.
- Having more students between other PNU universities in other provinces.

### **Statistical Sample**

Statistical population is students of PNU University in Tehran, in three ranks that are consist of discontinuous bachelor, bachelor, Master of Science. The sampling is in base of CLUSTER sampling, for about ten departments at PNU University in Tehran that have the most students. Four disciplines selected (education, physical education, Computer engineering, agricultural engineering) in three grades between male and female in 2010-2011. Reason of this selection is being more frequency among these disciplines than others at PNU University that in base of MORGAN chart with 400 people as stratified random sampling.

## **RESEARCH METHOD**

In this survey research method is questioner with thirty base of LIKERT classification.

### Questioner Reliability and Validity

In this research, validity of content uses as measurement method, so questioner in base of research variables.

Experts' opinions and professors in distance education, environment and resources have been used for determination of research stability through SPSS and ALFA Cronbach's coefficient ( $\alpha=0.86$ ).

### Introduction of Questioner Test

Analyzing of research questions has been done with SPSS to describe and make inference research questions. In descriptive statistic, some indexes used such as:

Central tendency, dispersion to frequency table, normative variables. To facilitate analyzing of result One -sample T-test has been used.

### Statistical Analyzing

Research data analyzed through one –sample test. Descriptive result and inferential statistic are consist of concerning to PNU university students as statistical population, the first table was presented in base of sexuality Separation among 400 students with 60male (35%) and 260, female (65%).

**Table: 1**  
**Distribution and frequency percentage in base of sexuality Separation**

Sex	Frequency	Frequency percentage	Collective frequency
Male	140	35.0	35.0
Female	260	65.0	100.0
Total	400	100.00	0

The second table was presented in base of discipline Separation that the most statistical sample is education, about 48% of whole population then Computer engineering 26.5%.

**Table: 2**  
**Distribution and frequency percentage in base of discipline Separation**

Discipline	Frequency	Frequency percentage	Collective frequency
Physical education	50	12.5	100
Education	192	48	87.5
Computer engineering	106	26.5	39.5
Agricultural engineering	52	13	13
Total	400	100	

### Descriptive Data of Research Questions

Descriptive data about research questions determined through utilization of mean, standard deviation. Each question analyzes through One-sample T test. Achieved mean compares to 3(index), either. (Table: 3)

**Table: 3**  
**Presents statistical indexes (mean, standard deviation) that is related to each**

Questions	Frequency	Standard deviation
Does distance education change students environmental Behavior?	2.93	0.98
Does distance education cause environmental education, effectiveness in students?	2.63	0.59
Does utilization of distance education achieve to environmental education, goals?	2.885	0.89
Are there barriers for utilization of distance education to Perform environmental education at university?	1.92	0.83

**First Question**

Does distance education change students' environmental Behavior? The Table 4 presents that distance education changes students' environmental Behavior ( $p > 0.05$ ), mean (2.927) is equal to 3(index).

**Table: 4**  
**Result of independent-samples T-test" The study of distance education utilization for changing of students' environmental Behavior"**

Variable	mean	Standard deviation	Variance	T-Value	F	P-value
Distance education changes students' environmental Behavior	2.927	6790	70.0	-1.476	399	0.141

( $p > 0.05$ ), mean (2.927) is equal to 3(index).

**Second Question**

Does distance education cause environmental education effectiveness in students?

The Table: 5 presents that distance education doesn't cause Effectiveness of environmental education. ( $p < 0.05$ ), that mean (2.63) is less than 3(index).

**Table: 5**  
**Result of independent-samples T-test" The study of distance education utilization affects students' environmental education"**

Variable	Mean	Standard Deviation	Variance	T-Value	F	P-Value
Cause environmental education Cause environmental education, Effectiveness in students	2.631	695.0	-863.0	-12.369	399	0.00

( $p < 0.05$ ), that mean (2.63) is less than 3(index).

### Third Question

Does utilization of distance education achieve to environmental education, goals? The table 6 presents that distance education does not achieve to environmental education goals ( $p < 0.05$ ). Achieved mean (2.88) is less than 3(index).

**Table: 6**  
**Result of independent-samples T-test" Utilization of distance education achieves to environmental education, goals"**

Variable	mean	Standard deviation	variance	T Value	F	P value
utilization of distance education achieve to environmental education in students	2.885	0.894	-511.0	2.571	399	0.01

( $p < 0.05$ ). Achieved mean (2.88) is less than 3(index).

### Fourth Question

Are there barriers for utilization of distance education to Performance of environmental education at university? Seventh table presents that there are some barriers for utilization of distance education to perform environmental Education ( $p < 0.05$ ). because mean (1.92) is less than 3(index).

**Table: 7**  
**Result of independent-samples T-test "Utilization of distance education achieves to environmental education goals"**

Variable	Mean	Standard Deviation	Variance	T-value	P value
Are there barriers for utilization of distance education to Perform Environmental education at university?	1.92	0.825	-1.078	-26.13	0.00

( $p < 0.05$ ). because mean (1.92) is less than 3(index)

## CONCLUSION

In base of result ,distance education can be used as a suitable method to change attitude and skills that recent generation need it for facing to severe environmental crisis ,also according to result development of environmental education and increase of influence and performance , through distance education are not affective , its reason is mismatching of facilities and non-using about distance education to solve environmental problems .So, we cannot be helpful that about effectiveness without consideration of distance education foundations . At first these foundations should recognize before making decision and then use it for achieving to distance education objectives .in base of observations, although educational methods can be used for encouraging of learners to achieve environmental education objectives and protect environment, utilization of distance education is not effective onward achieving to environmental educations objectives.



So, utilization of distance education is one of environmental education objectives for stable development, it considers as a factor for creation of a cooperative learning environment that let learners and teachers study about problems and express manners toward education objectives.

For this purpose, two strategies should be used as short-time and long-time for solving of recent problems. Long-time strategy reviews modern educational methods and have a comprehensive studies in other countries. Short-time strategy tries to solve problems and consider programs to long-time strategy objectives in a short-time strategy, but in base of a suitable manners.

As regards to social, political and economical problems could consider as barriers to achieve the best objectives.

The results of research explain, despite of some barriers to utilize environmental education through distance education, we should effort to develop environmental education with use of modern technology and other distance education. In this way preparation of environmental education curriculum ought to in base of distance education to perform.

"Study of professors, attitude, awareness and environmental behavior at Tehran University, which has been done by Yaser Zahtab (2010), explains that higher education acts successfully to help students in order to inform about their role, encourage a suitable behavior which is related to environment, creates ability in decision makers to use environmental approach. Also, helps learner to respect the world and enjoy it then perception of thought and environmental act for promotion of international recognition and stable development.

"The manner of motivate and creation of needs in various audiences to improve environmental education effectiveness at SBU university, that has been done by Iraj Rezaei (2003), expresses unsuitable perception about environmental education by audiences causes to wasting of financial resources and losing the time as a main factor in environmental process, which result to irreparable damages to nature.

There is a research as "study of virtual education role in evolution and development of environmental education that has been done by Farahnaz Jahanzad (2009), the result of this research is not same as our result.

It is because of unsuitable manner for performance of research with recent research, also difference between research samples that presents abilities of this kind of education is useful to achieve environmental education goals."the survey of barriers for utilization of virtual education In high school about high school administrators opinion in Tehran (2004-2005), that has been done by Taghvai. This research presents that financial, technical, man-made and organizing factors, consider as barriers about administrators, opinion exception of resistance of high school administrators than presence of virtual education development inside of traditional education. There are four factors such as: equip mental, financial, social and man-made factors as barriers about measurement of deterrence rate.

### **Research Restrictions**

**This point is so important; there are some restrictions that cause result implications to whole of PNU University.**

- **Utilization of achieved questioner.**
- **Limitation of statistical population to PNU university's students in Tehran.**
- **Lack of recent resources about environmental education in distance education.**
- **Lack of students in discontinuous bachelor and absence of them at university, because lessons were his reader, so they could not answer questioners.**
- **Time limitations (performance of coincide with the end of education)**

### **RESEARCH SUGGESTIONS**

- **Creation of media and special network for promotion and changing of environmental behavior in society.**
- **It is suggested to informal organizations help development of informal education through distance education and encourages them to perform educational planning for creation of environmental responsible behavior.**
- **In spite of the fact that the most environmental education objectives are related to education about environment, it is suggested to contents consider as connection between education and environment ,so contents should be about Destruction , renewal, protection of environment and a kind of environmental pollution in distance education which all of them must be included in books.**
- **Meet and discussion should be about environment for students at university, also environmental expressions ought to invite in this meeting.**
- **Service training should pay attention for professors of distance education about environmental problems.**
- **Lifetime distance education through related officials and organizations.**
- **Scientific committees should make in base of rethinking, recreation and reconstruction objectives in distance education to environmental education in higher education.**
- **The increase and development resources and recent technical facilities should consider at university.**
- **Its better that improvement of technical foundations be coincided to quantitative progress of distance education about environmental education.**
- **One of the most important indexes at university should improve students' literacy about computer.**

## BIODATA and CONTACT ADDRSES of the AUTHORS



**Seyede Zahra SHAMSI PAPKIADE** graduated from Payame Noor University (PNU) and got her M.A degree of environmental Education at PNU. Her research interests are distance education, e-learning design and multimedia learning environment. She had been experienced in postgraduate designing and programming of postgraduate distance education department of Payame Noor University (PNU).  
<http://www.pnu.ac.ir>

**Seyede Zahra SHAMSI PAPKIADE**  
(Corresponding author)

M. A. Peyam-Noor University,  
Department Environmental Education,  
Payame Noor University, P.O. Box: 19395-3697, Payam Noor University, Tehran, IRAN,  
Email: [z.shamsi@pnu.ac.ir](mailto:z.shamsi@pnu.ac.ir)



**Sayed Mohammad SHOBEIRI**, is graduated from Regional Institute of Education (NCERT), Mysore, India. At the time, he is the Head of Environmental Education of Payam Noor University. His research interest is environmental education via distance education. He is the major mentor of students advisor.

**Sayed Mohammad SHOBEIRI**,  
PhD, Associate Professor,  
Department of Environmental Education,  
Payam Noor University, Tehran, IRAN  
P.O. Box: 19395-3697, Tehran, Iran  
Email: [sm\\_shobeiri@pnu.ac.ir](mailto:sm_shobeiri@pnu.ac.ir)



**Mohammad Reza SARMADI**, PhD, Associate professor, Department Educational Sciences , Payame Noor University, Tehran, Iran

**Mohammad Reza SARMADI**  
PhD, Associate Professor,  
Department of Environmental Education,  
Payam Noor University, Tehran, IRAN  
P.O. Box: 19395-3697, Tehran, Iran  
Email: [ms84sarmadi@yahoo.com](mailto:ms84sarmadi@yahoo.com)

## REFERENCES

Alayi, M. (2003). Innovation in higher education, distance education. National Conference of Virtual University, kashan University, Iran.

- Attaran, M. (2005). *Electronic learning on 21 Century*, by. Erigrison, tri Anderson, intellectual schools publication, 2005,72.
- Ebrahim, Z. E. (2004). Epistemological considerations in e-learning materials. Proceedings of the Second Conference on e-learning, Secretariat of High Council of Informatics
- Ebrahim, Z. E. (2006). *Adult Education*. Tehran, Payam Noor University Press.
- Hafeznia, M. (2006). *Introduction to Research Methods*. Tehran, Ministry of Culture and Islamic Guidance Press.
- Jahanzad, F. (2009). *Study of virtual education role in complement and development of environmental education*. Payam Noor University, Tehran.
- Moharam Nejad, N., Hidari, O. (2006). Develop a management model for sustainable development and environmental education for young generation. Journal of Environmental science and Technology, No.28.
- Montazer, G. (2002). Skills training, information technology and its impact on effective learning and inclusive. *Journal of Humanities A- Zahra University*, No. 42.
- Nemati Seyyed, H. (2009). A review on facility distribution and training services for centers and units of Payam- Noor university and presenting appropriate indices for e-learning in Iran . PhD thesis. Payam- Noor university ,2009,25.
- Rezaie, I. (2003). *The creation of motivation and needs in various audiences for improvement of effectiveness in environmental education*. SBU University, Tehran.
- Salmani, B. (2008). *Quality assessment within the curriculum of educational science professors and students from the perspective of a light pattern on the curriculum* Francis Klein. ATU University, Tehran.
- Sarmad, Z. Bazargan, E.; Hejazi, E. (2007). *Research Methods in Behavioral Sciences*. Tehran, Aghah press.
- Shabani, H. (2005). *Teaching skills, teaching methods and techniques*. Samt press.
- Sholtez, T. (2007). *Transition from traditional agriculture*. Ni press.
- Tafazolimoghadam, A. (2009). *Ferrari context of globalization and national development and higher education, open learning and distance from the viewpoint of experts*. Payam Noor University, Tehran.
- Taghavi, M. (2005). *The survey of utilization barriers to virtual education in high school about high school administrators in Tehran (2004-2005)*. SBU University, Tehran.
- Zahtab Yazdi, E. (2010). *Awareness, rate, attitude and Professors, environmental behavior through descriptive and Survey manners*. Payam Noor University, Tehran.