Effectiveness of Blogging as a Teaching Aid in Environmental Education Activities

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ABSTRACT: The study aimed to compare the efficacy of the use of blogs as a teaching aid for environmental education activities for high school students was conducted. Materials and Methods: In this quasi-experimental pretest-posttest control group respectively. Ramhormoz all the high school students in the study population. Statistical sample by sample size determined by Morgan and by stratified random within each class of 88 students into four groups (two experimental groups and two control groups) of both sexes (each n = 22) were selected. The data gathering tool was a questionnaire. Data were analyzed using descriptive and inferential statistics. Results from the questionnaires showed that the level of cognitive (sig>0.05), attitude (sig>0.05) and environmental behavior (sig>0.05) is the result of environmental literacy groups there is a significant difference. The learning outcomes in boys compared with girls, and this effect was statistically significant in favor of boys. The results show the effectiveness of blogging as an educational activity for a group training environment is examined.

Key words: Environmental education, Blogging, Communication.

INTRODUCTION

Environment where you live and provide the most basic human needs and phenomena that every day is important, but unfortunately, people during his rule on this planet to use and without planning of natural resources, dangerous pollution in the ground, air and water and eliminate the power it. Increasing environmental problems in the world, international organizations and experts in the field of 70, which is not necessarily the remedy to be noted that all aspects of a campaign by political, cultural, economic, social and technical begin. To solve environmental problems, the proposed various solutions that most of these solutions, technological, but because of the Public Sector Development Programme PSDP plans to change the way of life, people (Environmental performance) and behavioral solutions (Ozkamp 2009).

Because achieving a healthy environment in each country, with the public's awareness of the community, so that training can be very effective. Awareness about local and global environment at the national level as well as knowledge of different approaches to solving environmental problems and to participate in it, all the features that are available only with the efficient education (Niro et al, 2012).

A very worthy organizations in the community that plays an important role in promoting cultural development is responsible for environmental protection, education organizations. The main concerns of the organization, environmental issues and how human interaction with the surrounding environment. Although in recent years has tried to environmental education in schools and education,

environmental protection, special attention is placed on the content of the curriculum.

But with the education system in the Islamic Republic of Iran, with regard to the growing environmental risks that currently exists, the issue of education, the environment, and creates a commitment and awareness in students in connection with the environment, turn into a full-scale challenge for school programs (Taher Khani, 2009).

Like other sciences, environmental education requires its own unique pattern and style of the executive and general principles in its teaching must be considered. Using some methods, training is ineffectual or less effective, if not more of the functionality you need, we can hope to achieve educational goals (Khaledi, 2008).

Preparing for what happened today and environmentalists is on the way of knowledge and literacy, environmental and benefiting from the tools and assistance in the environment to students. Because of the environment is most dynamic knowledge preparing the environment, not only in how to teach in the classroom, but in preparation for the students to learn outside classes have too many problems. If students claimed responsibility for their learning to take on the environment in education and training from abroad on their learning and certainly will be added to the efficient and effective learner will become (Pinkman, 2005).

So with regard to this issue is not only in the case of environmental education to be realized that a new training human and this is due to the environmental education, particularly the new methods of education and information transfer of key importance to find (Mahmoudi and Veisi, 2005).

Meanwhile, in light of the training technologies through the establishment and development of the educational environment that is confined to a certain geographical position and not very fruitful, (Kharazi and Esfandiari Moghaddam, 2010) and using them under the impact of the information and inside of it, as well as the network of new information more fields to choose the scientific and cultural services provided to users (Norouzi et al., 2008). Hence infrastructure development and information highways and grow significantly personal computer connected to the transfer of information network in recent years, a milestone in the implementation of information technology, communications in various aspects of life, including a teaching and learning (Ebrahim Abadi, 2009).

Electronic learning environment, in an upward trend, for most of the teachers and students in public and normalization: the use of information technology to students the opportunity to dominate and navigation technology and teachers to change its role to facilitate the transfer of the can, to provide information to the students and, on the other hand, the learning activities that is learning. required to play such a role in the area of teachers capable of teaching and the use of information technology (Esmaeilnia et al., 2013).

New technologies, several tools to improve teaching and learning in the class: Of information and communication technology has the potential to change in the way of teaching and could be several role in the process of teaching and learning. The study pointed out that the information and communications technology can, a supporting role to play in the traditional faces (Niazazari et al., 2012).

Developing means of communication, the possibility of new learning to learner: Technical specifications, that means teaching process of learning and training in the hands of a constitutional changes. Website, WikiLeaks, Podcast, News, A Chat Room, A Video Conference, "White and etc. Examples of communication tools are learning that using them to be at the same time and time together with other sources of learning to communicate (Seraji, 2009). In the opinion of Dorn (Dron, 2007) tools available in the software through contributing to communicate, control and management of the learning process, and a group of interaction increase (Mcloughlin and Lee, 2007). Boyd (Boyd, 2007), believes the software through support, to support and provide feedback and social networks and communication between people play an important role in improving the learning process (Pettenatti, 2007). Weblog an example of this type of resources that are on the line, like other milieus can critical thinking, interaction and learning

the deep and paying students in the interpretation of the information and knowledge to help (Cashion and Palmieri, 2002).

Weblog is one of the most widely used web tools for the first time in the last decade 1990, in an active online in the journal emerged as the owners of the blog was allowed to work continuously, editing and or remove any issue of them, on the other hand, allow others to reading and comment too (Matheson , 2004), as of pasco (2008), more than 100000 blog on a daily basis, and the number of bloggers who is active 6 every two months. with the growing population, in a diverse range and emerge travel, sports and education, including education (Brescia and Miller, 2006).

In Iran, a lot of providers, the possibility of establishing a free blogs in their users have the possibility of which can be used to improve education and learning activities in the field of education. Because of the current rapid in the world, many of the traditional methods, showed that the transfer the new concepts to learner. But it seems that in this century, information technology, increase the speed of learning and learning conditions for talent and different tastes is (Niazazari and Hosseini, 2012).

Blogs as a tool of learning to raise the level of education. Web based on technological developments came to represent the support of all kinds of the process and the process of learning and training and opportunities for a time for students and trainers to create (Top, 2010).

The structure of the theoretical perspective implies that students played an active role in the process of learning their (Duffy and Cunningham, 1996 and Jonassen et al. , 1999); So in education should benefit from a tool that the role of the students to learn to take a more active appears to be a useful tool for the environment and blogs interactive learning (Ajjan and Hartshorne. , 2008, Brescia and Miller, 2006 and Zhang et al., 2007).

Hericko (Hricko, 2008 believes that educators can use these tools for multimedia content, learning activities and assessment methods to suit the characteristics of their students develop (Selwyn, 2007).

In accordance with the views of baldness (Tsa, 2009), many researchers have favorable opinions about the benefits of learning through their blogs and blogging. Blogs can also greatly contribute to the academic achievement of students and secure their experiences.

Blog as a tool of distinguished and social software due to the ease of access, user friendly and ease of use more attention to the teachers from the many researchers to many studies on the application

of education and its effects on research . (Hosseini Nasab, 2010).

Hsu and Lin (Hsu and Lin, 2008) model for integrating a blog with a curriculum based on the theory of operation of contemplation have developed. Based on this model, technology acceptance, knowledge sharing and social communication are considered three factors in turning the blog into an educational media (Kim, 2008). By reviewing research on educational blogs model has to offer. He designed the model of interactive features, openness, meeting facilities and decentralized nature blog has paid much attention to it.

Recent studies document the benefits of using a lot of blogs in education environments are (Brescia & Miller., 2006, Ellison and Wu, 2008 and Kim, 2008). However, as with any new technology, students learn they have no content directly from your blog, frameworks and strategies to increase Nmydhd. Ellison, Wu, (Ellison and Wu, 2008) and Mac go and Lvaman (MacBride and Luehmann, 2008) found that the benefits of using blogs to a large extent on how the selection of teachers for making and using blogs in class depends on it.

Kim and Bang (cited in Kim and Bank, 2006) in a study found that the use of information technology training, and helps to enrich and improve classroom teaching (Hricko, 2008).

Hosseini Nasab et all (2010) in his study entitled Effects of Blogging on academic achievement and student interest in learning English course examines knows. The results show the success of this project has been in the teaching and learning of English.

Saidon (2011), with a view of teachers about the possibility of using modern technology in the education of environmental students found that the knowledge and skills, access to digital content, believed to be part of the environmental education, access to the infrastructure, the determination of the educational system, the complexity of working with the new technologies, understand the usefulness of the environmental, time and time required for the effective factors in applying the new technologies in education, time and environmental factors in the required to apply the new technologies in education, the environment.

Papzan and et al (2011) environmental training with electronic readiness owners and managers of agricultural companies. The study showed that the knowledge and skills and cost-effectiveness of information technology and communications 22 percent of the use of information and communication technology in the teachings of the environment.

With regard to the popularity of blogs on education in the field of research is still part of its use

as a training tool in the field of education, the environment. So it is that the blogger can serve as an educational assistance to improve environmental literacy and learning for students used or not is very important. The purpose of this study was to try and examine the benefits achieved in relation to the blog teaching and learning environmental illiterate students.

In this study, researchers sought to answer this question are:

Does blogging as an educational activity can lead to improved literacy learning environment in which students?

Hypotheses

1- Blogger students to learn of their environmental impact is positive.

2- Blogger students to improve their environmental attitude has a positive effect.

3- Blogger students to improve their environmental behaviors positive impact.

4- The impact of blogging students on environmental literacy two boys and girls is different.

MATERIAL AND METHOD

Due to its object and purpose of the study was quasi-experimental. To achieve the research objectives, pretest and posttest design with control and experimental groups have been taken. The study population included all the high schools in RAMHORMOZ first grade students in the academic year is 92-1391. Randomly to 4 groups of 22 (two girls and two boys) were selected.

Statistical sample by sample size determined by Morgan and by stratified random within each stratum (n = 88) were selected. The sample size of 22 individuals divided into four groups. Randomly from a group of boys and girls as a group to train with the use of blogs in educational activities were considered. Two other groups as a control group, without the benefit of the normal and were studied.

In the first session of the content of the training, before the test was held: as before, the first test in order to measure the literacy rate of the environmental group two intervention and control of what is needed for teaching in the trial of the educational standard of environmental (Roth, 1992)with 22 question 5 option at three levels, knowledge, attitudes and behaviour. Validity questions the letter to help 15 people from pundits and reliability of supply it with Cronbach\'s coefficient 0.92, and it was calculated.

Since based learning blogger requires a background knowledge about how to work with the Internet and how to enter the blog, placing, photos

and several other technological skills, researcher in a meeting to this type of activities for the group.

In this study the content of the educational literature by experts in the field of education, the environment, the nature of the book was in the hands of the adoption of (Lingelbach and Purcell, 2000) and as the educational literature was used its credibility by several studies confirmed (Karimzadegan and Meiboudi, 2013).

Outline with regard to the implementation of the project for a long time to 9 split and was due to the test, according to a plan that was to include researcher and blogging as an activity outside classes. the students and teachers are required to refer to the blog prepared. After the 9 training session to determine how much students learn the topics of education, the experimental groups and control, environmental literacy test was performed. Data by SPSS version 13 and analyzed using descriptive and inferential statistics. To compare the mean Kidney Paired t tests were used.

RESULT

Initially, before the arrival of the independent variable (Blogging) to research, test the differences between the two groups for the environmental literacy of students is conducted, the results of which are shown in Table 1. According to Table 1, the level of environmental knowledge pretest significant, t (0.75) is greater than 0.05. So that we can assume zero test that meaningful difference between the two groups average is simply that the test scores in the control group and meaningful difference, that there is no evidence of their counterparts of control bodies and research. After completing the course Literacy Assessment of environmental groups held that the results of the test and control groups in Tables 2, 3, 4 and 5 are presented.

According to the level of cognitive knowledge in the environment, then with regard to the level of significant t calculated (0.0001) is less than 0.05, So the assumption of zero test that meaningful difference between an average of these two groups and the assumption of research on average meaningful difference between the two groups.

First hypothesis: blogging positive impact on student learning environment

Second hypothesis: Students blogging on improving their environmental attitude is positive. According to the above argument in the attitude, the calculated t-test considering a significance level (0.00) is less than 0.05, so the null hypothesis of no significant difference between the two groups, the test was rejected and the research hypothesis that there was a significant

Difference between the two groups were confirmed.

Third hypothesis: Blogging behaviors of students on improving their environmental impact is positive.

Due to the controversy over the behavior, the calculated t-test considering a significance level (0.02) is less than 0.05, So the null hypothesis of no significant difference between the two groups, the test was rejected and the research hypothesis that there was a significant difference between the two groups were confirmed.

Fourth hypothesis: The impact of blogging on students' environmental literacy of girls and boys are different.

According to the results in Table 5 significance level achieved test (0.03) is less than 0.05 as a result of the assumption is zero, based on the examination of the absence of meaningful difference between the two groups of boys and girls, the group behind the tests and exams are based on the assumption of meaningful relation to be confirmed. Also with regard to the average of environmental literacy tests showed that the results of the group is in favour of the boys.

Table 1. Environmental literacy statistics, t-test comparison between pre-test and control groups

	Number	Average	SD	t	Degrees of freedom	Significant level
Experiment	44	10.27	2.37	0.75	86	0.45
Control	44	10.65	2.45			

Table 2. First hypothesis: Students blogging on their learning environment is positive

	Number	Average	SD	t	Degrees of freedom	Significant level
Experiment	44	5.22	1.70	-9.75	86	0.0001
Control	44	2.75	1.19			

Table 3. T-test statistics attitude of environmental education using ordinary method of blogging

	Number	Average	SD	t	Degrees of freedom	Significant level
Experiment	44	5.70	1.04	-13.68	86	0.0001
Control	44	2.77	0.96			

Table 4. T-test statistics of environmental education using ordinary method of blogging

	Number	Average	SD	t	Degrees of freedom	Significant level
Experiment	44	4.36	1.16	-3.19	86	0.02
Control	44	3.59	1.10			

Table 5. T-test statistics and environmental literacy in teaching using blogging and normal way

	Number	Average	SD	t	Degrees of freedom	Significant level
Experiment	22	8.54	1.53	-2.24	42	0.03
Control	22	9.68	1.80			

DISCUSSION AND CONCLUSION

In this study the effectiveness of blogging as an activity training assistance in training the environment for male and female students of secondary school in comparison with normal education without benefiting from blogging as an activity training assistance is investigated.

After nine sessions of training for both the control group and the experimental results showed that:

In comparison group control and experimental group, the group trained benefiting from blogging activity in comparison with a more effective control, training at the level of cognitive knowledge of what has happened and the level of knowledge is more appropriate. The first study hypotheses, so that the blogger students to learn of their environmental impact of research is positive.

The results of research, the second hypothesis that the blogger students to improve their environmental attitude has a positive effect, confirms, the results indicate that attitude is at the level of the environmental group, stronger than in the control group. So the results of the study, study (Pinkman, 2005 Chong, 2009;; Garrison and Anderson, 2007; Dron 2007), in the field of the rate of increase motivation and a change of learner attitude using education based on blogging have been carried out.

The results of research findings showed that the average, environmental performance students to build and environmental bloggers have been better than students who traditionally and without blogger were being trained in the third hypothesis research on the blogger students to improve their environmental behaviour has a positive effect, was approved.

It's also results suggest that, as a result of the training provided for the two groups, boys and girls in different research hypothesis is based in part due to the difference of blogging on two boys and girls is approved. It's also meaning the test results in favour of the boys shows training, in fact benefiting from blogging for more effective boys.

Overall results of this study showed that the use of information technology and training to the success of the students and meaningful relationships.

research findings with the results of the study (Baroo et al., 2009; Soleymanpoor, 2011 Deryakulu et al., 2010;)and consistent.

Achieved environmental literacy through environmental education as part of an effective strategy for the conservation and preservation of natural resources. However, it is certain that environmental literacy is not simply a set of common knowledge and common methods in the context of a new approach in the field of environmental education is essential. Demand for this new approach is more efficient and flexible than traditional varieties are teaching tools and educational materials specific to its application is driven by users, mostly in the form of multimedia (text, images, video, animation, etc.) collected there. Including the tools to modern technology, communications and information pointed out that the ability to widely in the training of environmental applied (Papzan, 2011).

Integrating technology into the classroom curriculum depends on many factors and web development, social software such as blogs have been readily available to users. Teachers can also easily embed to design learning activities and curriculum integration of these tools take advantage of information and communication technologies (Hosseini Nasab et al., 2010).

One of the most important features of computer-based environments, high student engagement with the learning materials and the learning environment are described. Interactive learning systems so that the relationship is such that the learner's choices, answer questions, and resolve the issues involved. Thereby engaging the learner in the learning process, leading to a deeper and more effective learning and learning to think and develop sensitivity to the external environment, the personality and confidence will rise.

Equipped with basic infrastructure and efficient human force can be based learning to blog as one of the tools with a positive impact on the process of learning and teaching and easy access to information, environmental education to students and improve environmental literacy society. Hence, it is suggested that in future research examining the following:

- Training, while serving in order to get acquainted with the blogger and means of benefiting from it in teaching and learning environment for teachers.

- Research evaluation of the effectiveness of benefiting from the blog as learning activities in the environmental education to students and university students.

- Similar to that of other research in the school students also.

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