

A COMPARISON OF THE ENVIRONMENTAL KNOWLEDGE, ATTITUDE, AND PERFORMANCE OF MUNICIPAL EMPLOYEES OF TWO AREAS OF THE MUNICIPALITY AND PRESENTING SOME TECHNIQUES FOR LEARNING UPGRADING (12 AND 13 AREAS OF TEHRAN CITY'S MUNICIPALITY)

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ABSTRACT

The environmental learning is a means for achieving appropriate and positive environmental attitudes. The aim of the environmental learning is having citizens with the environmental literacy who in group or individually tend to take measures to protect and promote balance between human life quality and the environment quality. The emergence of the environmental problems and its cumulative trend is a topic for discussion for most of the economic and social experts. Therefore, this study discusses the environmental behavior of municipal employees of two areas (12, 13) based on their environmental knowledge, attitude and performances. The study is a descriptive and a kind of survey research which uses questionnaires on behavior assessment in order to collect data. The questionnaires were given to 260 municipal employees of zone 12 and to 240 municipal employees of zone 13. The results show that more than half of the municipal employees of the two areas agree or completely agree on appropriate behavior toward the environment. The data also show that the employees' knowledge about the environmental behaviors was above average. Finally, about half of the employees declared that typically master protection skills of the environment, however comparing to the environmental knowledge, attitude, and performance of the employees of the two municipal areas (12, 13) the outcomes indicated that the employees of both areas have lower knowledge about the environmental attitude and performance. Also, the environmental knowledge, attitude, and performance of area 12 are lower than that of area 13. In other words, the environmental knowledge, attitude, and performance of area 13 are more appreciable.

Keywords: *Knowledge, Attitude, Performance Environmental, Behavioral Environmental, Municipal Employees*

INTRODUCTION

Nature and the environment is God's grace which includes all creatures, natural resources, as well as coordinated factors and conditions surrounding each creature on which life is dependent. The environment is a place to live and it provides the most basic human beings' needs that are of daily growing importance. Unfortunately, during his ruling on this planet, human being have been using natural resources uncontrolledly and without planning, causing air and soil pollutions and destroyed the earth's biological power (Edhami, 2012). For the first time, since the agriculture era began and man was able to reside at one constant place at twelve thousand years ago, humans' economic activity on a group scale substituted systems and biophysics process of the world in such a way that have endangered both ecological sustainability and geopolitical security (Ress and Wackemagel, 1996). Industrialization destroys humans' ecosystem. The world is in the crisis of ecosystem and the environment is threatened by mankind (Stone, 2006). Wrong use of nature and the natural resources has encountered many countries to many problems relating to ecosystem. Current ecosystem crises in addition to population explosion,

Research Article

growth of impoverishment and increasing of hazardous diseases threaten human society. Some of the environmental crises include destruction of ozone layer, acid rain, climate change, draughts, radioactivity pollution, uncontrolled cutting of forests in the world and deforestation, soil erosion, destruction of animal habitat as well as live species, loss of biodiversity, water shortage, floods, a rise in temperature, chemical pollution, loss of vegetation, deserts prevention, and many other problems. Since decade 90, due to the increasing environmental problems in the world, international organizations and experts necessarily try to notify the public to find a solution and to start wide political, cultural, economic, social, and technical activities. To solve the environmental problems various solutions have been proposed, mostly technologically; but because of the high cost of these projects, solutions only devoted to changing in people's lifestyle (performance environmental) and behavioral responses (Ozkamp, 2009). According to many experts of the environment, unsanitary methods of waste disposal, inappropriate collection of waste and lack of waste separation for recycling, and many other environmentally destructive behaviors, need a change toward a positive behavior environmental (Barrow, 2010). Studies also show that there is a highly ignorance between man's behavior relations with the environment. This is due to the lack of information, absence of true attitude and shirking of responsibility toward the environment, and many other reasons (Barrow, 2010). Consequently, having enough knowledge about the nature of the environmental crises, the effects of increasing destructive outcomes of the environment, and the influence of mankind in the emergence of such problems seems to be essential. Necessity of environmental learning as one of the environmental objectives is always emphasized. Paying attention to the environmental learning and expert training consistent with the environment is one of the most aspect of its protection that represents the importance of attention to the hardware and technical aspect of the environment because the efforts made to protect the environment have emphasized on technical methods, however solutions were not able to prevent the natural environment from increasing destruction. Therefore, many believe that change of behavior and attitudes of people and their lifestyle are solutions to the environmental crises. To do this, people should be convinced that the natural environment, not only for the benefit of humans but also because of its own nature has a high value.

Background of the Study

The environment protection is a major problem of the world. Concern with the environment has become a social problem. Environmental disaster not only robs safety and comfort of human being's life, but threatens human existence; therefore the environmental problem is the most serious question in scientific and political circles (Edhami, 2011). At present times, environmental crisis is due to the lack of human knowledge in managing the environment sustainably (Mvlyady, 2010). Today, the general consensus suggests that real solution of the environment problems is related to human being and their behaviors. People should seek stability both for the environment and their economic activities so that the two, the environment and human being, have longer future. Environmental sociology made a lot of study on attitudes, values and the environmental behaviors of people. Social scientists indicated great sensitivity to the environmental conditions which affect humans' behaviors or are because of their behavior. Social scientists psychologically do not know the human environment apart from the natural one; rather they consider human being as an inseparable aspect of the environmental conditions. Hence, as the overpopulation problems appeared, scientists' attention attracted to the immediate impact of physical environment on human health and behavior. Obviously, an ideal relationship between man and the environment is a relation by which they can be in an agreement to each other and no one is under the other's dominancy (Zolfaghari, 2007). Thus, developments in culture of the environment involve an increase in human productivity in the field of environmental issues and learning environmental conditions in broader aspects (Edhami, 2011). Municipal entity is potentially one of the important elements in managing the urban environment. Urban environmental protection is one of the major tasks of the municipalities in developed countries. Various studies verify this claim; for instance, one of the magazines of the World Bank titled *Municipals Role in the Future Developments of the Universe*, claims urban environmental protection as a general principle that mayors should take into consideration in order to reach the urban development.

Research Article

In Iran, based on 50th act of law, the environmental protection is a public duty. This law almost engages all organizations with different degrees of responsibilities in the environmental issues, though the presence of some organizations as custodians of the environment especially in the field of urban areas is highlighted. In his research, *The Possibility of Transferring the Urban Environmental Management to Municipals*, Kazemian states the cultural context as the most challenging contexts which is essentially an important category but is not a visible element in the implementation of processes. He believes making the environmental issues as the main and important issues for managers are one of the proposed strategies in the cultural context. Therefore, this study tries to examine the existing environmental knowledge, attitude, performance, and behaviors among the municipal employees of 12 and 13 areas of Tehran city. Meanwhile, it specifically examines the relationships among environmental knowledge, attitude, performance and environmental responsibilities of people; because the first four items considered like a strong factor that can predict the environmental responsibly behavior and help to protect the environment. It is said that the environmental behavior is the outcome of environmental knowledge, attitude, and performance.

The present study will examine the environmental knowledge, attitude, and performance of municipal employees of 12 and 13 areas of Tehran in respect of nature of the environmental crises (soil, noise, air, water pollution, waste, toxins, radioactive, and etc.), the effect of the environment growing destruction results, and man's impact on the appearing and promoting of these problems.

Purpose of the Study

The main goal of the study is to examine the environmental knowledge, attitude, and performance of municipal employees of 12 and 13 areas of Tehran and to represent strategies for promotion of learning level in order to achieve sustainable development. Most research done on the relationship between environmental knowledge and performance assume that knowing the environmental damages caused by degradation the nature can encourage people to take care of it and contribute to the meaningful environmental behaviors. In the present study like other already researches it is assumed that environmental knowledge has a positive relation with environmental attitude and behavior. Thus, it is expected that higher level of environmental knowledge has positive correlation with attitude and behavior. Regarding the secondary objectives, the following can be mentioned:

- Recognizing the current state of the environmental knowledge, attitude, and performance of the statistics population under the study
- Identifying weak points of the environmental knowledge, attitude, and performance of municipals employees of 12 and 13 areas of Tehran city according to available documents
- Identifying current opportunities to improve the environmental knowledge, attitude, and performance of municipals employees of 12 and 13 areas of Tehran city according to available documents
- Recognizing threats in order to enhance the environmental knowledge, attitude, and performance of municipals employees of 12 and 13 areas of Tehran city according to existing documents
- Identifying strong points of the environmental knowledge, attitude, and performance of municipals employees of 12 and 13 areas of Tehran city according to available documents
- Assessing the differences and similarities of the previous experiences in the environmental knowledge, attitude, and performance with current condition under the study limits according to available documents

The results of this study can lead to improve the management of municipal employees in order to prevent or decrease environmental damages; also it is useful for municipal managers, social and cultural studies department of municipality, and for department of citizens learning of the municipality.

Research Hypotheses

- 1- There is a meaningful relationship between promotion of knowledge and attitude level of municipal employees of 12 and 13 areas of Tehran city and their environmental performance
- 2- There is a meaningful relationship between knowledge and attitude level of municipal employees of 12 and 13 areas of Tehran city
- 3- The municipal employees of 12 and 13 areas of Tehran city have appropriate environmental knowledge, attitude, and performance

Research Article

4- There is a meaningful relation between the environmental knowledge, attitude, and performance with environmental behavior of the municipal employees of 12 and 13 areas of Tehran city

5- There are differences in the environmental knowledge, attitude, and performance of the municipal employees of 12 and 13 areas of Tehran city

The effect of the environmental education on behavior of citizens

The main goal of the environmental education, regardless of how the goals are introduced, is to prepare world citizens effectively as though to be able to behave in a way that improve or maintain the safety and the quality of the environment. Since 1970s our understanding of factors that support environmental behaviors has grown. For example, we know that information can influence the attitudes which are often a prelude to suitable behavior, are affected by many factors and can be explained in different ways nevertheless. Representing information on the environment and the environmental choices has still an important role in environmental learning.

A lesson learned early is that even new information cannot make desired alterations in a learner. Learner may remove the new information completely or partially, or distort the information so that it is more consistent with previous one, an event known as cognitive consistency. Perhaps no essential alteration happens even if new and more accurate beliefs occur. Beliefs are acceptable criteria by a person; as they can get partial power, make it possible to speak about value priorities. For example, one respects comfortable and materialistic life and also admires natural and attractive life, but the first two values have more priority in his/her view. Unfortunately, it is often difficult to make such clear priority over our values, even when we are completely aware. What makes this more complex is that citizens often enters the environmental subjects without taking the effect of the subjects on their whole values into consideration or without determine their own value priorities explicitly or make a proper foundation for information by which they predict the outcomes of those values. As a matter of fact, a crucial duty of the environmental education is to objectively and accurately prepare learners to pass difficult process of making transparent the values as well as data collecting. Humans, regardless to what extent can completely examine their values and determine the prior ones, take up a position based on their accepted and established values or beliefs and finally adopt some attitudes when examine a subject or issue.

Review of the Related Literature

Kaezer et al (1999) assert that those who have more knowledge about the environmental matters are more sensitive to the environment and its related matters, so more likely they have positive view to the environment and are provoked into the responsible environmental behaviors. Best bases for defending the environment is built in humans' mind. Environmental education is the fundamental of such defense base because they can be effective for saving the earth planet.

Stern (1993, as cited in Nordeland and Garvil, 2002) states that in addition to the attitude factor, three other factors impress positive environmental behaviors too. First, background factors such as physical costs, rewards, and access to technology; second, individual abilities such as particular environmental knowledge and skills; and finally, habits that need to be loosened in order to change behavior toward positive environmental behavior. Therefore, to understand the environmental behaviors better, factors of attitudes, individual abilities, and habits should be examined inter relationally. According to the theory of rational selecting, everyone considers his/her personal interests as s/he wants to do environmental behavior (Vydgrn, 1998).

In their research, Mehrdad Hadipur and Reyhane Shakuri (2004) evaluated the extent of the environmental knowledge and optimal methods of the environment learning in housewives and female teachers of primary schools of Arak town. People randomly sampled to answer the questionnaires. With regard to cultural, economic, and social characteristics the research was carried out in different parts of Arak town. Findings indicate weakness in informing and that a need for environmental education in the society. Statistical population knows people's ignorance and lack of awareness as the most important factor in the development and progression of environmental challenges.

Daryush Karimi (2002) in his research has considered the degree of awareness of three different social classes of Khak Sefid area in Tehran; the environmental learning needs of students, housewives, and

Research Article

teachers of the region are determined according to the assessment model of Kafman, Karigan, and Johnson. Research findings reveal that familiarity degree of housewives with the environmental matters and their effects are insignificant whereas awareness of general meaning of the environment among teachers and students is more.

In her study, Solymani (2003) analyzed the content of primary school textbooks in terms of the attention paid to the environment. Results revealed that in relation to the amount of lessons, pages, words, and images of the textbooks of that period, just 45 out of 512 lessons, 814 out of 3199 pages, and 424 out of 3332 images had been devoted to water, air, and soil. That's to say not enough attention paid to the issues which today are known as a universal problem in primary school textbooks.

MATERIALS AND METHODS

Statistical Population

Statistical population consists of a collection of individuals or units that possess at least one common trait. The statistical population of this study consists of all municipal employees of area 12 that are 780 people and 660 people in area 13 which in total are about 1440 people.

Sample Size and Sampling Method

Sample size according to Morgan's table includes 260 people in area 12 and 240 people in area 13. The municipal employees in this study were selected randomly and in cluster and based on their demographic information.

Design of the Study

The study is a descriptive-survey research. Statistical populations of municipal employees of areas 12 and 13 are respectively 780 and 660 people. Based on Morgan's table, the Sample size for municipal employees of areas 12 and 13 are 260 and 240 people with 95% coefficient of confidence. Given the importance of the environmental knowledge, attitude, and performance of municipal employees, questions posed which their validity and reliability was approved through Cronbach alpha. Then, the questionnaires were distributed among the municipal employees of two areas, finally the responses of the two areas were compared to each other and consequently the analysis of data obtained from the sample. To check the normality of variables, Kolmogorov-Smirnov test was used, then by using Pearson and Regression's correlation coefficient, covariance analysis test, and univariate test, the research hypotheses according to their type were tested. All statistical procedures were performed by using SPSS software.

Instruments of the study

Necessary information and materials were gathered through related books, magazines, and websites resources.

Questionnaires

To collect data, the study used Likert scale. The mentioned questionnaire includes 41 questions.

Hypotheses Testing

Hypothesis 1: There is a meaningful relationship between promotion of knowledge and attitude level of municipal employees and their environmental behavior.

Table 1: Correlation coefficient for the variables

Performance		
Pearson r	Performance	1
	Knowledge	.169
	Approach	.389
P	Performance	0
	Knowledge	0.003
	Approach	0.001
Number	Performance	500
	Knowledge	500
	Approach	500

Research Article

Table 1 indicates that there is a meaningful relationship between promotion of knowledge and attitude level of the municipal employees and their environmental behavior and r at the level of $\alpha=0.05$ is meaningful, also the orientation of the relation of variables is positive and direct; that is, the employees with higher education and attitude have better performance.

Hypothesis 2: there is a meaningful relation between knowledge level and attitude of the municipal employees.

Table 2: Correlation coefficient for knowledge level and approach

		Approach	Knowledge
Pearson r	Knowledge	1	0.114
	Approach	0.114	1
P	Knowledge	0	0.006
	Approach	0.006	0
Number	Knowledge	500	500
	Approach	500	500

Table 2 reveals that there is a meaningful relation between promotion level of knowledge and attitudes of the municipal employees and the magnitude of r at the level of 0.05 is meaningful. Also, the orientation of variables relation is positive and direct; i.e. employees with higher knowledge level have better attitude.

Hypothesis 3: the municipal employees have the environmental knowledge, attitude, and performance.

Table 3: T-test for environmental approach

	t	Df	P	Mean difference	TConfidence level 95%	
					Minimum	Maximum
Approach	49.43	499	0.001	1.03	0.995	1.07

The results of table 3 shows that ($t=49.43$) at the level of $\alpha=5\%$ is statistically meaningful with 96% confidence and the null hypothesis rejected. Also, there is a meaningful relation between the observed mean ($M=4036$) and the expected mean ($M=3$). Thus, it can be said that the level of environmental attitude of the municipal employees are higher than the mean of the society.

Table 4: T-test for environmental knowledge

	t	df	P	Mean difference	Confidence level %95	
					Minimum	Maximum
Knowledge	38.25	499	0.000	0.299	0.283	0.314

Table 4 states that the observed t ($t=38.25$) at the level of $\alpha=5\%$ is statistically meaningful with confidence of 95%, so the null hypothesis rejected. Also, there is a meaningful difference between the observed mean (0.799) and the expected mean (0.5). Therefore, the environmental knowledge level of the employees is higher than the public.

Table 5: T-test for environmental performance

	T	df	P	Mean difference	Confidence level %95	
					Minimum	Maximum
Performance	22.78	499	0.001	0.795	0.726	0.863

Table 5 implies that the observed t ($t=22.78$) at the level of $\alpha=5\%$ is statistically meaningful with confidence of 95% and the null hypothesis is rejected. There is also a meaningful difference between the observed mean (3.79) and the expected mean (3). As a result, it can be said the level of environmental performance of the employees is higher than public.

Research Article

Hypothesis 4: there is a meaningful relation between environmental knowledge, attitude, and performance and environmental behavior of the municipal employees.

Table 6: Correlation coefficient for the variables and behavior

Performance	Variable	
Pearson r	Behavior	1
	Performance	0.061
	Knowledge	0.108
	Approach	0.174
P	Behavior	0
	Performance	0.085
	Knowledge	0.008
	Approach	0.000
Number	Behavior	500
	Performance	500
	Knowledge	500
	Approach	500

Table 6 proves that there is a meaningful relation between the environmental knowledge, attitude, performance and environmental behavior of the employees. Magnitude of r at the level of 5% is meaningful and the orientation of relations between variables is positive and direct.

Hypothesis 5: there is a significant difference between environmental knowledge, attitude, and performance of the municipal employees of areas 12 and 13.

To examine this hypothesis the researcher applied covariance analysis.

Table 7: Results of ANCOVA for environmental knowledge, attitude, and performance of the municipal employees

	Sum of Squares	df	Mean Square	F	Sig.
Between Groups	3252.6	2	1626.3	7318.8	.000
Within Groups	6.23	2	3.12		
Total	221.32	996	0.222		

Table 7 is about the effects of internal and external factors. ANCOVA results show that the amount of f that resulting from interaction between internal factors that are the environmental knowledge, attitude, and performance and external factors that are 12 and 13 areas is equal to 1403. The amount of f is statistically meaningful at the level of alpha 0.05. So, it can be concluded that there is difference in the environmental knowledge, attitude, and performance between the two areas, and in regard to ETA degree, it can be said that 27.1 percent of differences pertaining to the environmental knowledge can be determined at the basis of the region.

As the above table shows, in area 12 the average of environmental knowledge is equal to .769, attitude is 3/99, and performance equal to 3/62, while in area 13 the average of environmental knowledge is .831, attitude is 4/08, and performance equal to 3/97.

Results of the above table reveal that level of knowledge comparing to the environmental attitude and performance is lower in two areas, also level of knowledge, attitude, and performance in area 12 comparing to area 13 is lower. In other words, area 13 has more significant environmental knowledge, attitude, and performance.

Conclusion

The following conclusion can be obtained from this study

- There was a meaningful relation between promotion of knowledge and attitude level of municipal employees and increasing of their environmental performance. R magnitude is meaningful in alpha

Research Article

0.05. Also the orientation of variables' relation was positive and direct, i.e. the employees with higher knowledge and attitude have higher performance.

- Knowledge and attitude have meaningful and predictable effect on environmental performance of municipal employees.
- There was a meaningful relation between knowledge promotion and attitude levels of the employees, orientation of relations of variables were direct and positive, that is the employees who have higher education show higher attitude.
- The percent of the environmental attitude changes of the employees was determined by their knowledge.
- Knowledge has a significant and predictable influence on employees' environmental attitude.
- Level of municipal employees' environmental knowledge, attitude, and performance was higher than society average.
- Changes in the environmental behavior of the employees were explained by the municipal employees' knowledge, attitude, and performance.
- Knowledge and performance had a significant and predictable effect on the municipal employees' environmental behavior.
- Performance and knowledge were able to predict the employees' environmental behavior whereas attitude was not. Performance had higher predictive power than knowledge.
- The average of environmental knowledge, attitude, and performance in area 12 was .769, 3.99, 3.62 respectively, and in area 13 was 0.831, 4.08, and 3.97. It is obvious that area 13 had higher average than area 12.
- As a conclusion, there were differences between the environmental knowledge, attitude, and performance of the two areas. Given the magnitude of ETA, 27.1 percent of differences of the environmental knowledge can be explained by the characteristic of region.
- Area 12 had lower knowledge, attitude, and performance than area 13. These three factors actually were more obvious by the employees of area 13.
- In two areas, knowledge level was lower than environmental attitude and performance.
- Data revealed that the employees' knowledge and performance toward the environmental behaviors were above average and half of the employees declared that they typically have the related skills of protecting the environment. Finally, in terms of the environmental knowledge, attitude, and performance of the employees of the two areas (12 and 13), in both areas knowledge level was in a lower level than attitude and performance. Also levels of the knowledge, attitude, and performance in area 12 are at a lower level compared to area 13; in other words, the knowledge, attitude, and performance of area 13 is more appreciable than area 12.

The result of this study can be in congruity with the study done by Ali Agha mohmmadi (2007) concluded that primary school teachers have a positive and agreeable attitude to the environment. Such kind of attitude leads to responsibility sense and the environment -centrism attitude or protecting different biological resources. The results of the research are accord with the results of Estern et al (1993). The overall conclusion of the study which shows the effect of gender on the levels of teachers' environmental knowledge, attitude, and performance implies that awareness of male teachers are higher than female teachers while female teachers' positive attitude is higher than male teachers. But both genders have rather the same performances. Another interesting point of this study is assessing positive skill or the environmental performance of primary school teachers. The factors which have been approved by teachers and in their opinion have played a main role in environmental performance were usually at the level of 72/7%. So, higher skills of teachers in positive environmental performance lead to the selection of various behavioral solutions. Hence effective knowledge is an important factor in people' performance, its suitable solutions can influence better on the environment quality. A note worthy point of this research is that although having positive knowledge and attitude toward various environmental aspects, teachers of primary schools do not have appropriate performance; accordingly, it seems that people know

Research Article

individual's outcome more important than the environmental outcomes. Having low cognitive levels, information insufficiency, incorrect attitudes and beliefs toward the environment, lack of responsibility to the environment, personal, social ... characteristics all impress individual's performance into the environment.

Recommendations of the study

Environmental learning is a means of achieving positive and suitable environmental behaviors. The purpose of the environmental learning is to have citizens with the environmental literacy; those who have tendency to keep balance between humanistic life and the environmental quality and also to be able to do such. But the municipal employees should be realistic. The scope of protecting, supporting, developing, or degrading the environment are difficult choices that need citizens who really benefit from the environment.

Without such reforms, new methods will not be accepted at best and increases the existing problems at worst. Therefore, our employees have heavy obligations. Any attempt to train the municipal employees to say what they should do, is doomed to failure. The focus of learning should be on making ready the employees- from the viewpoint of knowledge, attitude, and performance- to contribute in decision making process as if be aware of the outcomes and values of their own decisions biologically, short and long term economically. As the public and experts believe reforming and changing in the attitude, insights, and knowledge of people about their destiny and the environment is a reason for development and also strengthen environmental behaviors and reformation in the environment crisis. As the academic field of municipal employees is not affiliated to municipality, it is mandatory to organize in-service courses for municipal employees to teach them the environment matters; however, municipality has different departments of culture, training, IT, and accounting. It is not true to say that most of municipal employees do not have the related job with their academic field but to achieve sustainable development, environmental information, and the environmental training are required. To do this the first step is learning, the second step is training in order to reach the sustainable development. Based on the present study findings, it is concluded that there is no certain factor to spread out true environmental behaviors. Hence, set of factors should be considered:

1. Training of municipal managers, policy makers, and all experts whose decisions affecting the environment.
2. To make a positive attitude and performance toward the environment, in-service training should be considered more. In-service training and position of practitioners or experts of municipalities in the process of teaching environmental behaviors can act as a means for changing the environmental knowledge, attitude, and performances that are useful in protecting the environment and dealing with coming crises.
3. Determining the environmental issues and enhancing practical skills pertained to the environment should be looked seriously.
4. Recognizing, restoring, and modifying knowledge and indigenous skills in accord with the environmental issues of municipal employees.
5. Selecting advanced science and technology which are in agreement with the environment and disseminating them to municipal employees
6. There is a low cooperation between EPA (the Environmental Protection Agency) and NGO (Non-Governmental Organizations). NGOs have been established recently, so they do not enjoy a strong structural and intellectual foundation. Thus, it is so early that these organizations can play their role in promotion of the environmental awareness. For this reason, apply for membership of such organizations and cooperation of municipality with organizations should be explained for employees in meetings and conferences.
7. Shortage of the environment graduates and experienced employees. So it is impossible to rise the environmental awareness levels
8. No connection between academic field of the most of the municipal employees and the environment and related subjects.

Research Article

9. Establishment of stable research centers where act as unique source of information, findings, methods, and modern phenomena in order to expand correct environmental behaviors.
10. Defining objectives of the environment organization for all the employees in various ways by holding seminars, explaining and determining the strategies in order to achieve the imagined goals.
11. Based on research findings in the field of positive attitude, it seems appropriate to take into consideration lifting spirits with different strategies and making mutual trust among the employees as much as to enhance stimuli factors.
12. Identifying personal characteristics of the municipal employees with personal behavioral criteria and applying them appropriately. To involve the municipal employees in decision making process, posing question, requesting them the solutions in line with the environmental behaviors.
13. Paying attention to the empowerment process as a strategy in municipal planning by providing practical model suitable for different levels of work as well as creating in- service courses in order to identify weak and strong points, then strengthening strong points so that to empower the employees more.
14. Creating the incentive system through rewarding and punishing devices to enhance the employees' performance.
15. Creating internal and external monitoring system on the environmental performance of the study subjects
16. Creating interactive evaluation system in the study subjects.

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