

# Investigating the Role of Educational Factors to Protect Urban Landscapes in Tehran Metropolitan

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## ABSTRACT

The purpose of this research was to assess the role of educational factors in protecting urban landscapes in Tehran Metropolitan. This is a quantitative research, applied and descriptive-correlation method was used. The research population consisted of all participants in educational courses held by Tehran municipality (N=300) and 172 of them selected by using simple random sampling method. To gather data in the field a questionnaire was employed. The content and face validity of the research instrument was confirmed by specialists in the field of agricultural extension and education. Cronbach Coefficient was applied for the purpose of reliability and 0.90 was obtained. Findings indicated that there was a statistically significant relationship between communication channels, interest of participants, skill of participants, teaching methods, participants' motivation, educational content program, educator, educational objectives and people motivation and dependent variable. The obtained results from multiple regressions could explain the variance of dependent variable (participant's motivation to protect urban landscapes) from independent variables showed that communication channels, skill and interest of participants contribute to the variation of dependent variable.

**Keywords:** Urban green space; Educational methods; Tehran Municipality; Plant clinic.

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## INTRODUCTION

The rapid growth of cities around the world is seen now as a major contributor to global biodiversity loss. Many governments consider the biodiversity conservation as an explicit policy goal. To help prevent further loss of biodiversity, there is an urgent need for more strategic approaches to conserve planning in urban environments based on a scientific understanding of landscape patterns, species requirements and development pressures (Gordon *et al.*, 2009).

Urbanization despite of providing various and extensive facilities for citizen, but challenges with important difficulties still remained. In many cities such as Tehran metropolitan, current issues such as rapid population growth, development of industries and environmental pollutions, changing in livelihood structure, destruction of traditional systems, fade of human relations, increase cultural conflicts and intensifying environmental pollution including air and water resources, detection of psychic shocks, is becoming as a major issue for urban management under supervision of Tehran municipality.

To design and develop suitable green space, a fundamental role by citizen is necessary to provide a beautiful landscape. Therefore, training of citizens to concern preservation, maintenance and appropriate interact with landscapes around them, proposed as an important strategy for Tehran municipality. In regard to protecting urban landscapes, training program and courses was held in the fields of green space, floriculture, mushroom cultivation, tree and shrubs, seasonal plants, apartment plants, terrarium and cactus from Tehran municipality.

In Tehran metropolitan, green space and urban landscapes, is considered for its important impact on ecological structures, services and human nature rather than aesthetics and leisure time (Kholdebarin, 2008). In recent years, developing new landscapes, have been emphasized by the state. As well as experiences from countries which have been used participation as an instrument to address urban challenges, have been shown that citizens participation is necessary to managing problems been faced rather than the policy arrangements (Pourasad & Khorasani, 2003). It is capable of fulfilling the basic conservation requirement to employ the environmental intervention alternative that is least harmful to the environment (Marusic, 2002).

Landscape architecture-and landscape planning in particular- is from its inception based on scientific analysis, which, however, it builds upon with a search for solutions to problems of land use and management (Marusic, 2002).

Educational programs based on environment with targeting landscape protection, can enhance sense of commitment and responsibility among citizens toward sustainable development (Mirdamadi & Esmaili, 2010).

Learning from past experiences and to overcome deficiencies in protected area management, efforts are now being made to implement livelihood-based approaches to conservation on large landscapes (Mathur & Sinha, 2008).

Different studies indicate the importance of urban landscape protection of various dimensions. Bryant (2004) studied the role of ecological greenways at local and metropolitan scales. The results of a biodiversity planning study of a highly urbanized environment in Washington, DC (USA) demonstrated the critical role of ecological greenways and parks in urban species conservation.

To strengthen the moral and behavioral attributes among people related to environment protection, as well as enhancement of social skills to active participation in decision making and policies about the environment, education is necessary (Majnounian, 2001). Mirdamadi and Haji Shafi (2009) in a study about "the role of nongovernmental organizations in adult education (andragogy)" have found financial resources of NGOs, participation in municipalities planning and educational level of educators, had positive role in protecting urban landscapes.

The main purpose of this study was to assessing the role of educational factors to protecting Urban Landscapes in Tehran Metropolitan. The specific objectives for this study were:

(1) to determine the personal characteristics of citizens who participated in training courses that held by Tehran municipality, (2) to prioritize setting of interest, motivation and opinion of citizens

from different perspective related to the landscape protection, (3) to determine the relationship between research variables.

## MATERIAL AND METHODS

This is a quantitative applied type research and descriptive-correlation method was used. In the field study, from 300 citizens who participated in training courses that held by Tehran municipality, 172 were selected by using Morgan table and selected through random sampling method to respond questionnaires.

In descriptive phase of research, personal and professional characteristics of respondents and research variables were examined. To collect data, a questionnaire was used. The content and face validity of the instrument were established by the experts in this field and related one. A pilot study was conducted to determine the reliability of the questionnaire. A Cronbach alpha coefficient used to measure reliability of the questionnaire and 90% was achieved.

Dependent variable in this research was participant's motivation to protect urban landscapes, and independent variables includes: personal characteristics of participants, interest of participants, participants motivation, communication channels, participants skill, environmental knowledge, and training method, training content, educator, and training objectives.

## RESULTS AND DISCUSSION

The results of personal characteristics of respondents were presented in table 1.

**Table1: Background and personal characteristics of study participants, N=172**

Variable	N	percent
Age of Participants		
40 and younger	58	33.7
41-51 yrs.	48	27.9
52-62 yrs.	44	25.58
63 and older	8	4.65
No response	14	8.13
Total	172	100
Gender		
Female	130	75.6
Male	32	18.6
No response	10	5.8
Total	172	100
Educational Level		
Illiterate	2	1.1
elementary level	4	2.3
secondary education	22	12.8
high school diploma	68	39.5
Technical or up to 2 yrs. college	60	34.9
Bachelor 's degree or higher	8	4.6
No response	8	4.6
Total	172	100
Marriage Status		
Single	44	25.6
Married	124	72.1
No response	4	2.3
Total	172	100

As the data indicate, the most frequently reported age was 40 years old and younger with having 33.7%. The mean age of participants was 46 years old. About 76% of the total participants were female. It was reported that 79% of the participants had at least high school diploma or higher.

The respondents were asked about their opinion about factors that motivate them to attend the educational classes. The results in table 2 show that informing others to protect environment was the most important factor that motivate them to attend the classes (mean=5.80) and the least important was cooperation with other organizations (mean=1.4).

**Table 2: Factors that motivate participants to attend the educational classes, N=172**

Statement	Mean	SD
Informing others to protect environment	5.8	0.16
Receiving training related to environment protection	4.5	0.27
Planting for planting vegetable and flowers at home	5.4	0.38
having healthy environment	3.4	0.39
Cooperating with organizations and other institutions for protecting environment	1.4	0.40

(null=1, very low=2, low=3, moderate=4, high=5, very high=6)

Table 3 shows the perception of respondents about usefulness of communication channels in informing respondents about educational classes. The results show that plant clinics with mean of 5.1 was very useful and radio was determined the least important channel (mean=2.5).

**Table 3: Usefulness of communication channels , N=172**

Statement	Mean	SD
Plant clinics	5.1	0.130
Printed materials	4.9	0.160
Friends	4.2	0.160
Documentary films	3.6	0.180
Educational program via Television	2.7	0.170
Educational program via Radio	2.5	0.170

(null=1, very low=2, low=3, moderate=4, high=5, very high=6)

Respondents were asked to indicate the usefulness of instructional methods used in informing participants. The results show that practical method was the most useful (mean=5.1) and telephone assisted method was the least useful method (mean=2.7)

**Table 4: Use fullness of instructional methods N=172**

Question	Mean	SD
practical instruction method	5.1	007/0
lecture	4.8	011/0
mass media-managed instruction (Radio, Television)	4.5	014/0
instruction via film, slide and photo	4.2	015/0
group discussion	3.7	016/0
instruction via chart and catalogues	3.1	018/0
correspondence education or telephone-assisted instruction	2.7	022/0

(null=1, very low=2, low=3, moderate=4, high=5, very high=6)

By using correlation coefficient, relationship between the research variables was measured. There was a statistically significant relationship between descriptive variables and participant motivation to protect urban landscapes.

**Table 5: Correlation measures between independent variables and participant's motive to protect urban landscapes**

Variable 1 (Independent variables)	Variable 2 (Dependent variable)	R	P
Communication Channels	Participant's motivation to protect urban landscapes	0.329	0.000
Interest of participants	Participant's motivation to protect urban landscapes	0.186	0.017
Participant motive	Participant's motivation to protect urban landscapes	0.264	0.000
Instruction methods	Participant's motivation to protect urban landscapes	0.178	0.020
The content of educational program	Participant's motivation to protect urban landscapes	0.225	0.003
Skill of participants	Participant's motivation to protect urban landscapes	0.235	0.029
Educator	Participant's motivation to protect urban landscapes	0.424	0.011

Table 6 shows the regression results analysis by stepwise method. Independent variables that were significantly related to participant motive to protect urban landscapes were subjected to regression analysis. The result indicates that the variance in the Participant's motive to protect urban landscapes could be explained by three variables of communication channels, interest of participants and skill of participants.

**Table 6: Multivariate Regression Analysis**

Model	Coefficients				
	Un-standardized Coefficients		Standardized Coefficients	T	P
	B	Std. Error	Beta		
Constant	18/27	0/767			
Communicational Channels	0/968	0/255	0/221	3/80	0/000
Skill of Participants	0/871	0/236	0/214	3/69	0/000
Interest of Participants	0/458	0/153	0/140	2/98	0/003

a. Dependent Variable: participant's motive to protect urban landscapes

The multivariate linear regression analysis showed in below:

$$Y = 0/22 X_1 + 0/21 X_2 + 0/14 X_3 + 18/27$$

$X_1$  = Communicational Channels

$X_2$  = Skill of Participants

$X_3$  = Interest of Participants

## CONCLUSION

The findings of the study provide ample evidence for government and urban municipality to plan and implement educational and training courses in relation to protect urban landscapes. The outcome from multivariate linear regression showed that communication channels, interest of participants and skill of participants explained the variation of participant's motivation to protect urban landscapes. As well as due to the regression standardized coefficient, communicational channels had more burdens on Participant's motivation to protect urban landscapes ( $\beta=0/221$ ). Therefore, selection of communication channels based on the content of educational courses, the type of course, participant's characteristics and the purpose of education, could play an important role in creating motivation for protect urban landscapes. Thus, it is recommended to produce especially environmental publication and magazines about design and protect of urban and home landscapes with simple and cost effective materials.

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