World Applied Sciences Journal 12 (7): 958-961, 2011
ISSN 1818-4952


# The Role of In-Service Educations in Upgrading the Environmental Knowledge of Primary School Teachers in Tehran, Iran

*Shobeiri Seyed Mohammad*

Department of Environmental Education,
Payame Noor University, P.O. Box: 19395-3697, Tehran, Iran

**Abstract:** Living in the unstable, complicated and hazardous situations of nowadays world, asks for the special knowledge, skill and attitude. Kids and teenagers, for confronting to this variable and vague world with this rapid changing, need kind of education that could develop all of the aspects of their being simultaneously. It should also make them familiar with their duty to efficiently participate in matters, either locally, nationally or internationally. The only way that can possibly reverse the effect of human activities on environment and increase the quality of life is to create a new attitude about the world and change the life style in a way that would have the most conformity to the natural environment. Environmental education is a practicable way to achieve this important issue. Governments, schools and teachers must give priority to this subject and help to create the public educational system, especially teachers, with their roles to convey the suitable environmental behavior (EB). It could be an effective mean to change the knowledge, attitude and skills that have more significance for future generation in confronting the crises. Therefore, this research was studying the primary school teachers' EB and was focused in 3 aspects that mentioned before: knowledge, attitude and skill. Also, it considers the role of in-service educations to promote their EBs. The method of this research is descriptive and applied. The data gathering facility is questionnaire and the sample of this study contained of 360 primary school teachers. The outcome of the research shows that more than 59% of this sample has medium suitable EB. Besides, it reveals that their knowledge about EB is intermediate. Meanwhile, by separating genders, it gathered that male teachers have more environmental understanding and their EB is better than female ones. It is obvious that teachers with higher educational level are more inclined to be at in-service classes and those who attend them have more environmental knowledge (EK). Furthermore, teachers with higher educational level who used the classes have more EK and teachers with positive attitude about their job have more enthusiasm in attending the classes.

**Key words:** Environmental education · In-service education · Behaviors environmental · Environmental knowledge

## INTRODUCTION

Living in 21th century means experiencing new technologies and knowledge every single day and confronting new global treats like environmental disasters, natural resources, energy and ethical crisis in daily news. Living in this unstable, complicated and hazardous situations, asks for the special knowledge, skill and attitude, kids and teenagers for confronting to this variable and vague world with this rapid changing, need kind of education that could develop all of the aspects of their being simultaneously [1].

It should also make them familiar with their duty to efficiently participate in matters, either locally, nationally or internationally. The only way that can possibly reverse the effect of human activates on environment and increase the quality of life is to create a new attitude about the world and change the lifestyle in a way that would have the most conformity to the natural environment.

Environmental education is a practicable way to achieve this important issue. Governments, schools and teachers must give priority to this subject and help to create the public educational system in schools.

**Corresponding Author:** Shobeiri Seyed Mohammad, Department of Environmental Education,
Payame Noor University, P.O. Box: 19395-3697, Tehran, Iran. E-mail: sm_shobeiri@pnu.ac.ir.

The traditional idea about environmental education is that the human behavior is changeable by teaching concepts about environment and its related issues [2].

It also mentions that when people gain new knowledge's about environment, they're going to be more motivated and show more responsible behavior about it. Therefore, the better environmental quality would be expected [3].

Public educational system is the biggest, most complicated establishment of society. So in almost all countries, billions of dollars costs to teach and educate children, teenagers and adults.

Because of the significant role of teachers in educational system, their ability to operate their critical responsibilities always has been under close inspections. Even today, when science and technology development make different educational Medias available for people, teachers remain the most important part of educational systems [4]. By the way, environmental education to children has specific importance, because they will inherit the earth and they also are the future guardians of our world. In the other hand, in most countries, specially developing ones, children are a big portion of population. Moreover, they are so vulnerable in confronting the effects of environmental disasters, either in developed or developing countries experts believe in the necessity of education in early ages so that we would observe better reflexes about harmful human activities in future [5].

Education is the most practical process for conveying knowledge and skills to employees and improving them in the act of doing their duties. This is important because of various reasons like preventing improper use of resources, new technologies, etc. it is obvious that needs particular planning and studies [6].

We researched about the amount of information a teacher needs. To be able to teach environmental issues and what is the in-service educations role in this process.

**Research Method:** This is an applied research and the main idea is not to discover a scientific fact, but to investigate the possibility of applied knowledge therefore the subject was selected from daily issues [7].

In this study, the method is quantities and the information from samples was gathered and compared.

Target population, sampling and sampling methods in present research the target population included all the male and female teachers employed in first to fifth level of primary schools in Tehran. Therefore the city was divided to 4 sections: North, South, East Central and West. Then accidentally, these areas were selected: 1th, from north, $16^{th}$ from south, $12^{th}$ from central, $5^{th}$ from west and 8th from east.

According to Kukran formula in sampling, the acquired sample size was 380, afterwards, from 450 distributed questionnaires, in selected areas, 300ones from females and 60ones from males was collected.

**Study Tools:** Questionnaire is a standard form of collecting information. In present study the questionnaires included several open and close questions. The Cronbuch's alpha was calculated and the result was 0.62 that represents the good reliability of the questionnaires.

In order to measure the face and content of this study, the questionnaires were exposed to professors and experts for necessary reforming.

**Hypothesis and Results**

**Hypothesis 1:** Teacher's environmental literacy (EL) and environmental attitude (EA) is associated to their academicals level.

According to "Table 1", there is a relation between the EL and academicals level of teachers. So that those with higher level have more EL though one part of the hypothesis can be rejected because the results shows that there is no relation between teachers EA and their educational level.

**Hypothesis 2:** Enthusiasm in attending in-service classes, is related to teachers EL. Moreover, a relation can be found among their EL, EA, environmental knowledge (EK) and their gender.

These results show that teachers, who attended environmental classes, have more EL and male teachers have higher EL and EK. They also have more positive attitude toward environment. Therefore, this hypothesis is correct entirely.

**Hypothesis 3:** Economical-social position, educational level, gender and age are the factors that affect teachers' environmental behavior (EB). EK could be affected from job's attitude, experience, as well as economical-social position.

According to "Table 3" it is obvious that higher economical-social position leads to better EK and EB. It also shows that there are connections between teachers job attitude, experience and EK.

Table 1: F Test

| A: Dependent Variable: Environmental Literacy | | | |
|---|---|---|---|
| Change resources | Df | F | Significant level |
| Witness academicals level | 2 | 1.824 | 0.165 |
| Experimental groups academicals level | 2 | 3.175 | 0.04 |
| B: Dependent Variable: Environmental Attitude | | | |
| Change resources | Df | F | Significant level |
| Experimental groups academicals level | 2 | 0.424 | 0.655 |

Table 2: t Test

| A: Dependent Variable: Environmental Literacy | | | |
|---|---|---|---|
| Change resources | Df | T | Significant level |
| In service classes | 350 | 153.901 | 0.00 |
| Gender | 349 | 1.988 | 0.04 |
| B: Dependent Variable: Gender | | | |
| Change resources | Df… | T | Significant level |
| EA | 359 | 190.387 | 0.00 |
| EK | 357 | 2.952 | 0.003 |

Table 3: F Test

| A: Dependent Variable: Environmental Knowledge | | | |
|---|---|---|---|
| Change resources | Df | F | Significant level |
| Economical-social position | 17 | 1.878 | 0.01 |
| Job attitude | 16 | 1.672 | 0.05 |
| Experience | 29 | 1.545 | 0.039 |
| B: Dependent Variable: Environmental Behavior | | | |
| Change resources | Df | F | Significant level |
| Economical-social position | 17 | 1.920 | 0.01 |
| Educational level | 2 | 0.494 | 0.611 |
| Gender | 350 | 5.671 | 0.018 |
| Age | 10 | 1.605 | 0.104 |

Table 4: F Test

| Dependent Variable: Attitude Toward In-Service Classes | | | |
|---|---|---|---|
| Change resources | Df | F | Significant level |
| Educational level witness groups | 9 | 1.013 | 0.43 |
| Educational level experimental group | 11 | 0.898 | 0.04 |
| Experience | 11 | 0.851 | 0.589 |
| Age | 30 | 1.172 | 0.250 |
| Job's attitude witness group | 11 | 2.242 | 0.01 |
| Job's attitude experimental group | 9 | 1.897 | 0.05 |

Part "b" of "Table 3" indicates that educational level and gender make change in EB so that males and those with higher educational level show better EB. Though there is no significant evidence to prove the relation between age and EB.

**Hypothesis 4:** Teacher's attitude toward in-service classes is associated to their educational level, experience, age and job attitude.

The table indicates that the amount of teacher's attitude toward in-service classes increases by the higher education. It seems that there are no significant relations among teacher's enthusiasm toward attending these classes and their ages or their experiences.

Although it's clear that teacher's who have positive attitude about their job, are more interested in attending in-service classes.

## CONCLUSIONS

Teachers with higher economical-social level have more EK. Males have more EK, EL, EB and ET.

Those with higher EK, have positive attitude toward their jobs. Experimented teachers have higher EK.

Teachers with higher educational level are more interested in attending in-service classes and they have more EL.

In a similar study that performed by Ali Aqa Mohammadi "study the knowledge, attitude and skills of primary teachers toward environment, Mazandaran Providence, Iran". There are comparable results with one difference that the females had more positive ET than males.

Furthermore, in another study by C.H. Swanepoel (2003), "Measuring the environmental literacy of teachers" in South Africa, the similar results were concluded: teachers with academicals education have more EL as well as those who are educated [8].

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