



## Factors Affecting the Effectiveness of Environmental Education in Iran; A Research Synthesis of Findings

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### Extended Abstract

Considering the rising trend in conducting research on environmental education, the present study attempted to compile the results of all research having done on the field of environmental education in the Islamic Republic of Iran. Then, in addition to combining the results, it can achieve a single and consistent view of effective factors indomestic environmental education. The research method is the research synthesis and its statistical population consisted of all valid scientific articles available in the field of environmental education. Regarding regular search in domestic databases, 206001 scientific articles were identified based on including criteria. But finally, 78 articles were selected for final analysis based on exclusion criteria. To collect the data, a researcher-made worksheet form was designed to report and record the research data. For analyzing the findings, Roberts's six-step research synthesis model was employed via open and axial coding methods. According to the obtained findings, environmental education, as it increases environmental knowledge and sensitivity, is considered as the most important method for educating individuals in identifying and coping with biological problems. In this regard, what has affected the effectiveness of this training was itself influenced by six factors of need assessment, use of educational methods, formal education, informal education, public education, and lifelong education. According to the findings, formal education has encountered shortages and weaknesses, while informal education has been more effective in this regard.

*Keywords:* environmental education, effective factors, research synthesis

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## INTRODUCTION

Education is the most effective tool for increasing one's knowledge of the problems and challenges of a community and shaping the future world. Since many environmental degradation, resource destruction, and environmental contamination are the result of human activities, making the people aware of and training them regarding the value and significance of the environment for the survival of humanity is vital.

## PURPOSE

Considering the rising trend in conducting research on environmental education, the present study attempted to compile the results of all research having done on the field of environmental education in the Islamic Republic of Iran. Then, in addition to combining the results, it can achieve a single and consistent view of effective factors in domestic environmental education.

## METHODOLOGY

The research method is the research synthesis and its statistical population consisted of all valid scientific articles available in the field of environmental education. Regarding regular search in domestic databases, 206001 scientific articles were identified based on including criteria. But finally, 78 articles were selected for final analysis based on exclusion criteria. To collect the data, a researcher-made worksheet form was designed to report and record the research data. For analyzing the findings, Roberts' six-step research synthesis model was employed via open and axial coding methods.

## RESULT

All findings were extracted from the process of research synthesis using the open source coding process based on result samples and then; all the results were grouped according to common concepts based on the axial coding process. The results are illustrated in Table (1):

Table 1. Classification of environmental education results based on common concepts (axial coding)

| NO. | Categories based on axial coding | Samples based on open coding   |
|-----|----------------------------------|--|
| 1   | Need assessment                  | Need assessment relevant to different age groups, textbooks, effective factors, independent curriculum design, teaching methods; higher education and academic curriculum; educational objectives; human resources training; needs of students and teachers. |

| NO. | Categories based on axial coding | Samples based on open coding   |
|-----|----------------------------------|--|
| 2   | Effectiveness of education       | Effectiveness of environmental education on a variety of groups.   |
| 3   | Educational methods              | Educational practices based on Gardner's multiple intelligences; Mural painting in kindergartens; Academic interagency and strategic plan; Workshop; Lecture method; Learner organization theory; Learning with the aim of thinking; Free space education ; Attention to religious and philosophical education; mobile learning; visual communication media; e-learning; distance education; virtual education; blogging; mobile phone; ICT; use of sentences and images; eco-friendly technologies, Family education; educational models. |
| 4   | Formal education                 | Content of elementary textbooks; Curriculum; Secondary education goals; Secondary school courses; Discontinuities of executive agencies.   |
| 5   | Informal education               | More effectiveness of informal education vs. formal education.   |
| 6   | Public education                 | Public education regarding the environment is the umbrella of all groups; different types of human groups require some kind of environmental education.  |
| 7   | Lifelong education               | Environmental education, regardless of age and education, is always considered and required.   |

## DISCUSSION

Since environmental education enhances the knowledge of individuals from the environment, it is effective on all situations, but what influences this effectiveness is the factors that, according to the results of the combination of findings in the present study, consist of six items (need assessment, educational methods, formal education, informal education, public education, and lifelong education). As the findings show, these factors are interrelated and each of them is important in its own place. In addition, the role of all these factors must be taken into account in order to provide effective and sustainable environmental education.

## CONCLUSION

The obtained effective factors in the present study are interrelated and the contribution of each of them is important in its own place. In order to provide an effective and sustainable education in the field of the environment, attention should be paid to the role of all these factors.

## NOVELTY

Environmental education in any country is influenced by a set of cultural, political, social, and economic factors that each plays a vital role in shaping this education, hence environmental education of a community cannot be taught abstractly and out of its social and cultural context. Therefore, the institutionalization of citizens' participation requires the presentation of necessary trainings.



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