

Investigation about Environmental Awareness of Rural Students and its Correlation with Awareness of Their Parents and Teachers, Case study: Students in Secondary School of Villages in Jey District, Esfahan

Fatemeh Izadi

M.Sc. in Environmental Sciences, Faculty of Natural Resources, Yazd University

Aliakbar Karimian*

Assistant Prof. in Faculty of Natural Resources, Yazd University

Hamid Sodayizadeh

Assistant Prof. in Faculty of Natural Resources, Yazd University

Received: 12/01/2013 Accepted: 30/10/2013

Extended Abstract

Introduction

Today, environmental crises that human beings are faced with such as global warming, destruction of natural habitats, decrease of natural resources, increase of different sorts of pollution, growth of population and some other cases which influence human life are not deniable. Although human has tried to reduce these crises, it takes a long time to eradicate them. So, we have to become familiar with these threats and try to eradicate or at least reduce consequences and reduce their destructivity. Since these problems are just made by humans, the most effective solution for removing them is teaching in national levels and enhancing public culture and awareness. In other words, we need to make environmental awareness a part of society knowledge. In this way environmental problems become public

* Responsible Author: akarimian@yazd.ac.ir

worries. Here, the awareness and attitude of young generations has considerable importance; because they are those suffering from the consequences of environmental destruction that caused by us and they should find a proper solution for this problem. As future leaders of society and as supporters of the health of the environment as the only source which can satisfy human needs, it is necessary for all children and teenagers to know about the environment and how human activities lead to its destruction and the decrease of its quality. In other words, restoration of natural resources and environment should begin with basic instruction of children to cause public contributing in this field. This is the most serious and the most effective way of battling against the destruction of nature. Therefore, investigation about the level of awareness of the youth and their attitude is of considerable importance. This is because of two reasons: first in order to improve their behavior and second to get a basic level to start the instruction from. We have to find the answers of these questions: Do students know about the environment? If yes, how much is this knowledge? Where have they learned about the environment? And so on.

Methodology

To achieve this aim, we have to make a standard questionnaire. The method used in the present study is descriptive- analytic and the data were gathered by a questionnaire having 34 items in Likert scale. The questionnaire consists of four parts: 1- The recognition of the parts of environment 2- The recognition of environmental pollution 3- environmental attitudes and 4- The attitude toward protecting the environment. The questionnaire was prepared for two groups of students and teachers and parents in two different wordings. Population in this study consists of all secondary school students, both boys and girls, in villages of Jey, Esfahan, Iran. Through using Cochran formula and considering the population, sample size was estimated up to 380. In the present research, finally 400 students were chosen through classified sampling. Up to 150 parents and 150 teachers were also tested to investigate the level of their awareness with the students' level of

awareness. To make sure of the validity of the questionnaire, after preparation of the final form, it was given to some expert in the field and some ordinary individuals and the mean of their ideas were applied in the questionnaire to make it acceptable in terms of its validity. The reliability of the questionnaire was measured 0.91 through a pilot test on 30 students using Cronbach's alpha. In analysis of the data of the present research, Mann-withney, Kruskal- wallis, and Wilcoxon have been applied.

Results

The results show that the level of awareness of the groups about the environment (the means of students' answers, and teachers/parents answers to 34 items) is appropriate, and this level is the highest for teachers ($p < 0.05$). To investigate the difference between the awareness of girl students and boy students of environmental issues Mann-withney test was used. The results show there is a significant difference between the awareness levels of these two groups in five percent significance ($P < 0.05$). It was also found out that boys are more aware compared with girls. To investigate the effects of parents' educational level on students' awareness Kruskal-wallis test was used. To this end, four educational groups of 1- under diploma 2- diploma and associated degree 3- bachelor degree and 4- the post graduate degree were measured. The results of the test indicate that students are affected by the educational level of their parents considering environmental awareness ($P < 0.05$).

Conclusion

In this project students' awareness of environment were investigated in order to understand the training needs for future. Obviously, these estimates will help us to organize suitable educational systems to achieve a suitable culture at different levels of society. As it was mentioned, instruction about environment is of vital importance. So these instructions should be on top of educational plans. Emphasis on increasing training in childhood leads to creation of a sense of responsibility for

the protection and proper use of resources and can become a path to achieving sustainable development goals.

Keywords: Education, Environment, Esfahan, Jey District, Students, Village.

References

- Akomolafe, C., 2011, **Impact of Personal Factors on Environmental Education in Tertiary Institutions in Ekiti State, Nigeria**, International Journal for Cross-Disciplinary Subjects in Education (IJCDSE), Special Issue, 1(1), PP. 559-564.
- Alp, E.; Ertepinar, H.; Tekkaya, C.; Yilmaz, A., 2006, **A Statistical Analysis of Children's Environmental Knowledge and Attitude in Turkey**, International research in geographic and environmental knowledge, 15(3), PP. 210-223.
- Alp, E.; Ertepinar, H.; Tekkaya, C.; Yilmaz, A., 2008, **A Survey on Turkish Elementary School Students' Environmental Friendly Behaviors and Associated Variable**, Environmental education research, 14(2), PP. 129-143.
- American Environmental Values Survey, 2006, **American Views on the Environment in an Era of Polarization and Conflicting Priorities**.
- Arcury, T., 2008, **Environmental Attitude and Environmental Knowledge**, Human organization, 4(4), PP. 300-304.
- Astalin, P., 2011, **A Study of Environmental Awareness among Higher Secondary Students and Some Educational Factors Affecting It**, International Journal of Multidisciplinary Research, 1(7), PP. 90-101.
- Bageri Varkaneh, A., 2003, **Investigation of Awareness of High School Student about Environment in Tehran**, M.Sc. in natural resource extension and education, Azad university.
- Ballantyne, R.; Packer, J.; Everett, M., 2005, **Measuring Environmental Education Program Impacts and Learning in the Field: Using an Action**

- Research Cycle to Develop a Tool for Use with Young Students**, Australian Journal of Environmental Education, 21, PP. 23-37.
- Bonnett, M., Williams, J., 1997, **Environmental Education and Primary Children's Attitude toward Nature and the Environment**, Cambridge journal of education, 28(2), PP. 159- 174.
- Bruce J.; Lee J.; Haites E. (eds), 1995, **Economic and Social Dimensions of Climate Change**, Contribution of Working Group 3 to the Second Assessment Report of the Intergovernmental Panel on Climate Change, Cambridge University Press, Cambridge.
- Campbell, J.; Waliczek, T.; Zajicek, J., 1999, **Relationship between Environmental Knowledge and Environmental Attitude of High School Students**, The Journal of Environmental Education, 30(3).
- Carrier, M., 2003, **The Influence of Outdoor Schoolyard Experiences on Students' Environmental Knowledge, Attitudes, Behaviors, and Comfort Levels**, Journal of Elementary Science Education, 15(2), PP. 51-63.
- Chan, K., 1996, **Environmental Attitudes and Behavior of Secondary School Students in Hong Kong**, Environmentalist, 16(4), PP. 297-306.
- Curry, T.; Reiner, M.; Figueiredo, A.; Herzog, H., 2005, **A Survey of Public Attitudes towards Energy & Environment in Great Britain**, Laboratory for energy and the environment.
- Dunlap, R., 1994, **International Attitudes towards Environment and Development**, in Helge Ole Bergesen and Georg Parmann (eds.), Green Globe Yearbook of International Co -operation on Environment and Development, Oxford University Press, PP. 115-126.
- Esmacili, S., 2007, **Effect of People Education about Tehran Consil Green Space in Health of Environment**, M.Sc. in natural resource promotion, Azad university.
- Flamm, B., 2009, **The Impacts of Environmental Knowledge and Attitudes on Vehicle Ownership and Use**, Transportation Research Part D: Transport and Environment, 14 (4), PP. 272-279.

- Frick, J.; Kaiser, F.; Wilson, M., 2004, **Environmental Knowledge and Conservation Behavior: Exploring Prevalence and Structure in a Representative Sample**, Personality and Individual Differences, 37, PP. 1597–1613.
- Gonzalez, L., Silveira P., 1997, **The People's Attitudes towards Global Environmental Phenomena: a case study**, Climate research, 9, PP. 95-100.
- Hadipur, M., Shakuri, R., 2004, **Investigation of Environmental Awareness Rate of Homemakers and Female Teachers of Elementary School in Arak City**, journal of environmental conservation organization, No. 41.
- Hagigatian, M.; Gazanfari, A.; Takeh Akbarabadi, P., 2011, **National Identity and some Factor on it in Intermediate School Student in Isfahan**, journal of applied sociology, No (1)41, PP. 71-82.
- Haidarmakki, M.; Abd-El-Khalick, F.; Boujaoude, S., 2003, **Lebanese Secondary School Students' Environmental Knowledge and Attitudes**, Environmental Education Research, 9(1), PP. 21-23.
- Heidari, A., 2003, **Preparation Type Management of Resistant Development for Young Foster**, M.Sc. in environmental management, Azad university.
- Huang, H., Yore, L., 2005, **A Comparative Study of Canadian and Taiwanese grade 5 Children's Environmental Behaviors, Attitudes, Concerns, Emotional Dispositions, and Knowledge**, International Journal of Science and Mathematics Education, 1(4), PP. 419-448.
- Jokar, G., Mirdamadi, M., 2010, **Point of View High School Female Student about Environmental Conservation in Shiraz**, Journal of agriculture extension and education, No. 1, PP. 1-13.
- Junge, X., Lindemann, P., 2009, **Swiss People's Attitudes towards Field Margins for Biodiversity Conservation**, Journal for Nature Conservation 17, PP. 150-159.
- Kaiser, F.; Wolfing, S.; Fuhrer, U., 1999, **Environmental Attitude and Ecological Behavior**, Journal of Environmental Psychology, 19, PP. 1-19.

- Kellert, S., 2010, **Attitude toward Animals, Age- related Development among Children**, The journal of environmental education, 16(3), PP. 29-39.
- Kuhlemeier, H.; Van Den Bergh, H.; Lagerweij, N., 1999, **Environmental Knowledge, Attitudes, and Behavior in Dutch Secondary Education**, The Journal of Environmental Education, 30(2), PP. 4-14.
- Lindemann, P., Bose, E., 2007, **Species Richness, Structural Diversity and Species Composition in Meadows Created by Visitors of a Botanical Garden in Switzerland**, Landscape and Urban Planning 79, PP. 298-307.
- Lindemann, P., Bose, E., 2008, **How Many Species are there? Public Understanding and Awareness of Biodiversity in Switzerland**. Human Ecology, 36, PP. 731-742.
- Lindemann, P., Xenia, J., 2010, **The Influence of Plant Diversity on People's Perception and Aesthetic Appreciation of Grassland Vegetation**, Biological Conservation, 143, PP. 195-202.
- NACEE, 2003, **Nebraska Conservation and Environment Literacy and Awareness Survey**, A report from the Nebraska Alliance for Conservation and Environment Education.
- NasrAzadani, E., Karimian, A.A., Moradi, H., 2011, **Effect of Age, Sex and Education Resource in Recognition Rate of Environment**, fifth national conference of international environment day, Tehran University, Iran.
- Nath, B., 2007, **Environmental Education and Awareness**, Environmental education and awareness, 1.
- Nath, B., 2007, **Formal Environmental Education at the Graduated Level**, Environmental education and awareness, 1.
- Negev, M.; Sagy, G.; Garb, Y.; Salzberg, A.; Tal, A., 2008, **Evaluating the Environmental Literacy of Israeli Elementary and High School Students**, The journal of environmental education, 39(2), PP. 3-20.
- Paraskevopoulos, S.; Padeliadu, S.; Zafiroopoulos, K., 1998, **Environmental Knowledge of Elementary School Students in Greece**, The Journal of Environmental Education. 29(3). PP. 55-60.

- Pettus, A., Giles, M., 1987, **Personality Characteristics and Environmental Attitudes**, Population and Environment, 9(3), PP. 127-137.
- Rissotto, A., Tonucci, F., 2002, **Freedom of Movement and Environmental Knowledge Elementary School Children**, Journal of Environmental Psychology, 22, PP. 65-77.
- Salehi Omran, A., Agamohamadi, A., 2008, **Investigation of Environmental Knowledge, Point of View and Skills of Teachers in Mazandaran**, Journal of Edification and Civility, No. 9, PP. 91-117.
- Special Eurobarometer, 2008, **Attitudes of European Citizens towards the Environment**, European Commission.
- Tikka, P.; Kuitunen, M.; Tynys, S., 2000, **Effects of Educational Background on Students' Attitudes, Activity Levels, and Knowledge Concerning the Environment**, The Journal of Environmental Education, 31(3), PP. 12-19.
- Worsley, A., Skrzypiec, G., 1998, **Environmental Attitudes of Senior Secondary School Students in South Australia**, Global Environmental Change, 8(3), PP. 209-225.
- Yildiz, N.; Yilmaz, H.; Demir, M.; Toy, S., 2011, **Effects of Personal Characteristics on Environmental Awareness; a Questionnaire Survey with University Campus People in a Developing Country, Turkey**, Scientific Research and Essays, 6(2), PP. 332-340.
- Yilmaz, O.; Boone, W.; Andersen, H., 2004, **Views of Elementary and Middle School Turkish Students toward Environmental Issues**, International Journal of Science Education, 26(12), PP. 1527-1546.
- Zsuzsanna, F., piko, B., kovacs, S., Uzzoli, A., 2009, **"Air Pollution Is Bad for my Health": Hungarian Children's Knowledge of the Role of Environment in Health and Disease**, Health & Place 15, PP. 239-246.