The Factors That Affect Attitudes towards Environment of Secondary School Students

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SYNOPSIS

INTRODUCTION

Unconsciously people which cause to environmental problems and environment are permanent interaction with each other (Kıyıcı et al., 2005). After revolution industry, environment problems increased quickly through world. Environment training is very important because environment problems is increased continuously and people must be conscious about it (Kıyıcı et al., 2005; Paraskevopoulos et al., 1998; Hampel, 1994; Bradley, Waliczek & Zajicek, 1999).

It has long been known that the basis for many environmental problems and issues is irresponsible environmental behaviours of people. Without doubt, one of the most important influences on these behaviors is the attitude. Therefore, it appears that an effective environmental education for school-age students is crucial (Kıyıcı et al., 2005; Paraskevopoulos et al., 1998; Hampel, 1994; Bradley, Waliczek & Zajicek, 1999).

There are a lot of studies that show environmental attitude of secondary school students and factors which affect this attitude. These studies introduced that a lot of factors effect student’s attitude. The most important of these factors is students’ knowledge about environment. (Hampel, 1994; Paraskevopoulos et al., 1998; Bradley, Waliczek & Zajicek, 1999; Yılmaz et al., 2002; Şama, 2003; Özdemir et al., 2004; Vaizoglu et al., 2005; Özmen et al., 2005; Uzun & Sağlam, 2005; Erol & Gezer, 2006; Gezer et al., 2006).

PURPOSE OF THE STUDY

The purpose of the study is to investigate whether there is a difference between secondary school students’ environmental attitude and their knowledge, gender, settlement
unit where they lived the most time, mothers-fathers’ education levels, mothers-fathers’ protecting behaviors toward environment, the state of environmental education in secondary school.

METHODOLOGY

a) Research Design

In the research, case study research design was used.

b) Sample

For this study, a sample of 100 student and 50 biology teachers was used. Secondary school students and teachers are in Erzurum in 2006-2007 instruction years.

c) Data Collection Tools

The attitude test consisted of 38 questions rated on a Likert-type scale. Attitude test were developed using present studies (Bradley, Waliczek & Zajicek, 1999; Uzun & Sağlam, 2006; Vaizoğlu et al., 2005; Daçın et al., 2006; Şama, 2003; Özdemir et al., 2004; Özden et al., 2005). The five possible responses to each statement were 1 (strongly agree), 2 (agree), 3 (neither), 4 (disagree), and 5 (strongly disagree). This inventory was used to measure students' attitudes toward environment. Scores were based on the student responses on the Likert scale. A student obtained a single attitude score that fell between a minimum score of 1-2 and a maximum score of 4-5. A neutral score is in the mid-range of 3. The attitude inventory had a Cronbach's alpha reliability coefficient of 0.83.

15 knowledge questions were developed by using actual curriculum from the unit under study. A student obtained a single knowledge score based on the number of questions answered correctly with a minimum score of 0 and a maximum score of 15. The knowledge inventory had a Cronbach's alpha reliability coefficient of .64.

The state of environmental education in secondary school is determined by a questionnaire including 6 items that were applied to 50 biology teachers in Erzurum.

d) Data Analysis

Attitude and knowledge changes were evaluated by using the Statistical Package for the Social Sciences (SPSS) Release 12.0 for Windows. T-test and Variance analysis (ANOVA) were used to test for statistical significance between secondary school students’ environmental attitude and their knowledge, gender, settlement unit where they lived the most time, mothers-fathers’ education levels, mothers-fathers’ protecting behaviours toward environment, the state of environmental education in secondary school. Pearson's product-moment correlation was used to test the relationship between attitude and knowledge.

FINDINGS and DISCUSSION

It was observed that %18 of students have positive attitude toward environment. A lot of students’ attitudes toward environment are middle relevance. The result of attitude test exposed that the %74 of students have middle attitude toward environment. But the %8 of students have negative attitude toward environment.

Fifty seven (57) students answered half of questions in knowledge test. 57 students have middle level in environment knowledge. Two students have only 10 true answers. 41 students couldn’t answer even half of questions. According to this result, students’ knowledge toward environmental issues are not very high.
When teachers’ view about state of environmental education in secondary school are investigated, it was found that laboratory opportunities, open field excursions, instruction time, currency of environmental subject, training of sensitive individual are not supplied sufficiently.

There is a different between students’ knowledge about environment, their mothers-fathers’ protecting behaviors toward environment, settlement unit where they lived the most time from factors that thought to effect students’ attitude and students’ attitude. Students’ genders and mothers-fathers’ education levels have not affected their attitude (p=0,05) but more mothers-fathers’ education levels increase and more students’ environmental attitude improve.

We found statistically significant correlations between student attitudes and knowledge. These scores were positively correlated, indicating that, as knowledge scores increased, attitude scores increased toward a more favorable attitude. Students scoring higher on the knowledge test tended to have more favorable environmental attitudes. This statistically significant finding is important (p<0,01). Because it suggests that increased knowledge may help improve environmental attitude.

DISCUSSIONS, CONCLUSION and RECOMMENDATIONS

For protection of environment, educated people that have environmental awareness and knowledge about environmental subjects are necessary. Environment education has an important role to growing up sensitive generations about environmental problems. Findings of this study may be interest to educators and provide implications for development in Environmental Education in Turkey.

When a young person begins to mature in the society, he wants to control the abilities. In other words, he desires to self-actualize himself. The initial and the most important institution for an individual can self-actualize himself is his family. Families determine the behavior of young people by providing role models with their own attitudes and behaviour (Çerik, 2002)

It is obvious that global environmental problems should be more formally embedded in to the curricula of both trainee teachers and their students (Pekel & Özay, 2005).

In higher education, environmental engineering mustn’t be only limited engineering and must be consolidated with other disciplines. In law, economics, medicine and the other social science education, environment topic must be attached (Çevre Atlası, 2004). Education programming mustn’t be offer only knowledge, however it must offer attitude for increase environmentalist person in environment education (Şama, 2003).

Due to interdisciplinary field, environment education can play role to catalyst in realizing propose of education. It is necessary that;
- applications should be increased to developing environment conscious
- environment topics should be integrated with education instruction in every level
- addition researches should be increased to enhance society’ conscious
- all institutes should study all together (Vaizoğlu et al., 2005).

Experimental studies and using of materials (activities, diagrams, low-browed, slides et al.) must be enhanced because of supplying students’ understanding for environment subjects (Darçın et al., 2006).

It is suggested that increased knowledge may help improve environmental attitude. It is encouraging for educators to learn that attitude can be influenced, at least in part, by what is taught in the classroom. A new perspective should include a systemic approach to teaching biology and environment. The approach should have a helical expression through environment education.
REFERENCES


