Investigation of Behaviors Towards Environmental Problems in Teacher Candidates Who Will Give Environmental Education at Primary and Secondary Schools

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Mustafa KIŞOĞLU**, Tahsin YILDIRIM***, Muhammed SALMAN****, Ali SÜLÜN*****

Extended Summary

The century we live in has become a period through which the effects of the environmental problems are increasingly experienced. The main cause of the environmental problems such as global warming, air pollution, noise and decrease of biodiversity is human behaviour. (Vlek and Steg, 2007). Reducing the negative effects of human behavior damaging the environment is possible by means of changing the current behavior of individuals (Steg and Vlek, 2009). Changing the behavior of individuals giving harm to the environment and achieving sensitive behavior towards the environment for individuals can be provided through an effective environmental education. The environmental programs in which the main purpose is to change the environmental behaviour by increasing environmental knowledge (Pooley and O’conner, 2000), set important tasks on the teachers who are the implementers of the program. As well as implementing environment programs, the teachers’ positive behavior towards environment is being role model for their students in a positive manner in terms of environment. (Timur v.d.,2013)

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** Yrd. Doç. Dr., Aksaray Üniversitesi Eğitim Fakültesi, mksoglu@hotmail.com
*** Yrd. Doç. Dr., Aksaray Üniversitesi Eğitim Fakültesi, tahsinyildirim@msn.com
**** Yrd. Doç. Dr., Kastamonu Üniversitesi Eğitim Fakültesi, msalman1917@hotmail.com
***** Prof. Dr., Erzincan Üniversitesi Eğitim Fakültesi, asulun617@hotmail.com
Purpose

In this study, behavioral level of science, classroom and social science pre-service teachers was aimed to examine in terms of different variables with regard to the environment problems when they start the service.

Method

This study is a descriptive study realized with screening method. The reason why the scan model is used in the research is that scan model is a model aiming to describe the current situation in the past or at present with the form of existing without exposing any effect or change. (Karasar, 1994). The sample of the study constitutes 344 preservice teachers in the first and fourth class departments' of science, classroom and social sciences at an educational faculty of a university located in the Central Anatolia Region. The data of the study was collected through a questionnaire consisting of two parts. The first part of the questionnaire questions is located to determine the candidates’ gender, the department and class in which they study, whether they are members of any environmental organization and whether they participate in any environmental events organized by public agencies such as science, camp, nature, education. In the second part of the questionnaire of Behavior Scale for Environmental Problems that had 40 items developed by Güven and Aydoğdu (2012) was used. The items located in the behavior scale prepared as six factors and three Likert type were created by taking into account of the steps of psychomotor areas in Bloom's Taxonomy. When the data of the study was encoded, the answers of the candidates did not accept in the scale were encoded as 1, indicating the neutral answer was encoded as 2, the responses of the teachers represent to participate in were encoded as 3. When the items that expressed negativity were encoded, they were inverted. Data was analyzed by using independent samples t-test and one way Anova in the SPSS 15.0 statistical software. In the statistical analyzes the level of significance was taken as (p) 0.5.

Results

As a result of the study the mean scores of the teacher candidates received from the behavior scale was found to be above the average score (X=92,01) taken from the scale. The finding coincides with the results of the similar study Çimen et al. (2011) which shows that all have made shows the teacher candidates’ environmentally behavior above the average.

According to the t-test analyze results indicating whether there is a difference in the behavior scale according to the gender, the average of behavior scale of the woman preservice teachers (X=92,38) is higher than the average of the behavior scale of the man (X=91,14) preservice teachers there is no statistically significant difference between scores by gender (p>0,05).

As the result of the series of analysis whether the memberships of the teacher candidates has an impact upon environmental behavior, the number of the
teacher candidates that become a member of any environmental organization ($N = 20$) is lower than the teacher candidates that don't become a member ($N = 324$). Despite this, the scale scores' average of the preservice teachers that have a membership to an environment organization ($X = 94.25$) is higher than the scale scores' average of the teacher candidates that don't have a membership ($X = 91.87$). The analyze results are made whether there is a meaningful difference showing between the behavior average of the teacher candidates that are the members and the preservice teachers that are not the member, there is not a meaningful difference ($p > 0.05$).

According to the results of independent t-test analysis made to determine the difference between the teachers participate in the environment activities organized by official organizations and they do not participate in, the number of the preservice teachers participate in environment activities organized by government agencies is lower ($N=80$) than the number of the candidates do not participate ($N=264$). However scale score averages of the preservice teachers ($X=93.99$) that participate in the environmental activities organized by the government agencies are statistically higher than the scale score averages ($X=91.41$) of the teacher candidates that do not participate in ($p < 0.05$).

The one way variance analysis being made to determine whether there is a difference among the preservice teachers come from different departments shows no difference the average of the behavior scale scores that the preservice teachers got from according to the their departments they study. ($p > 0.05$).

Whether there is a meaningful difference among the average scores of the preservice teachers studying in the first and the fourth classes was analyzed with the independent groups t-test, among the behavior scale scores of the preservice teachers studying at the first and fourth class, it was determined that there was a statistically meaningful difference in favor of the preservice teachers studying in the fourth class ($p < 0.05$). The identified difference according to the department results between the behavior scale score of the preservice teachers studying in the first and fourth class, the increase of the average behavior scale scores of the preservice teachers only studying at the fourth class of the science department was found statistically meaningful ($p < 0.05$). The increase in between the behavior scale score of the social studies teaching and primary school teaching departments weren't statistically meaningful ($p > 0.05$). According to the results, these suggestions can be made:

1. Teacher candidates’ membership of official and legal environmental organizations should be increased.
2. Environmental organizations should be introduced to teacher candidates in cooperation with these organizations.
3. The number of activities supported by official and legal environmental organizations should be increased. And, teacher candidates should be got involved in these activities.
4. The number of lessons about environment in teacher education programs should be increased.