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# Development of attitude scale in the context of sustainable environmental education[1]

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**Abstract**

The rapid disappearance of natural resources and residential areas as a result of industrial and technological improvements necessitated precautions to be taken in this issue. In fact, the idea of sustainable development arose within this context. The notion of sustainable development, which started to gain importance specifically after the mid-1980s, was defined as "the development that meets the needs of the present without compromising the ability of future generations to meet their own needs" in the 1987 Report of the World Commission on Environment and Development. Throughout time, this idea promptly tended towards the education of sustainable environment and became the contemporary dominant view. Therefore, environmental education is considered as a significant mean in the sustainable development. Within this context, the aim of this study is to develop a valid and reliable scale in order to determine teacher candidates' attitudes in relation to environment in the framework of sustainable environmental education. A pilot study was conducted with 400 teacher candidates who are studying in the programs of Social Sciences Education, Elementary Science Education and Primary Education in the Department of Elementary Education at the Ahi Evran University. As a result of exploratory factor analysis, it was found that the scale has 6 factors and the internal consistency coefficient is 0.904.

*Keywords:* Sustainable environmental education; Attitude scale; Teacher candidates


## 1. Introduction

Sustainability is a concept that is considered within the context of development and environment. Within this framework, the concept was defined as "the development that meets the needs of the present without compromising the ability of future generations to meet their own needs" in the 1987 Report of the World Commission on Environment and Development [1]. When the concept is undertaken in detail; sustainable development means the programming of life and development of present and future without consuming natural resources for meeting and development of the needs of future generations. In this sense, sustainable development is a concept with social, ecological, economic, spatial and cultural aspects [2] This notion pinpoints the peace between humanity and the nature and the justice among different regions, cultures, nations and generations of the world. In addition to social, environmental and economic aspects, sustainable development reaches up to the issues of global responsibility and political participation [3]

The application of sustainable development stages is defined in relation to diverse strategies, which cover subjects such as "climate change and clean energy, sustainable transportation, sustainable consumption and

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production, public health, conservation and management of natural resources, social integration, demography and migration, global poverty" [4].

The notion of sustainable development, which started to gain importance specifically after the mid-1980s, promptly tended towards the education of sustainable environment and became the contemporary dominant view. This is evident in UNESCO's replacement of the program "International Environment Education" which was carried out during the years 1975-1995, with the program "Education for Sustainable Future" [5]. This program informs that the essence of economic development is constituted by "humanitarian development" and that "sustainable" economy is directly related with the efficient conservation and equal distribution of natural resources. Thus, environmental education is considered as a significant mean in sustainable development [6].

Environmental education covers improvement of people's attitudes towards natural, intimate, social and cultural environments [6].Establishing attitude and value in individuals are important processes. Although generally procedures towards success are conducted in fieldworks, the basis of such behavior is constituted by positive attitudes towards an event or a phenomenon. In general terms, attitude is the tendency that provides the preparation for a certain behavior [7].Individual's attitude towards an event or a phenomenon constitutes a general form of the individual's behavior pattern towards that object [8] Therefore, determination of attitude is crucial in terms of the methodology to be conducted in order to equip the individual with cognitive and behavioral goals. It is known that cognitive success achieved in one area is positively related with emotional success [9].

There are cognitive, emotional and behavioral elements in the construction of an individual's attitude. Attitudinal and behavioral patterns consist of four components: action, action-oriented target, action-oriented content and time. Action oriented attitudes form the general or a specific pattern of these four elements [10]. However, there are also studies refuting the argument that the formation of attitude is indispensable with a pattern of thought, emotion and behavior. These studies put forward the idea that not all of these elements are necessary for an attitude to exist. For instance, one does not have to behave in an appropriate way in relation to a commodity advertised in TV in order to develop a positive attitude towards its [7].

Attitudes are considerably important specifically in relation to environmental issues. Individuals' personal interests, religious affiliation, social class, education level influence their attitudes towards environment. A living being, which an individual perceives as a threat, can be considered to be a beautiful part of nature by some other individual [11].

Attitudes can be measured by direct or indirect measurement techniques [7]. In this study, a scale was developed in order to identify the attitudes of teacher candidates towards sustainable environmental education.

## 2. Methodology

This research is based on screening model, which is a research approach that aims to describe a past or current condition as it is. The event, individual or object in question is sought to be defined as it is within its own conditions [12]. In this sense, this research is aimed at developing a valid and reliable measurement tool in order to determine teacher candidates' emotions and thoughts about sustainable environmental education.

### *2.1. Population and Sample*

While the population of the research is constituted by teacher candidates studying in different programs of the Ahi Evran University during the 2010-2011 academic year, the sample consists of 400 teacher candidates studying at the Ahi Evran University, Faculty of Education in the programs of Social Sciences Education, Elementary Science Education and Primary Education in the Department of Elementary Education.

### *2. 2. Data Collection*

#### *2. 2. 1. Studies about the development of the scale*

Certain stages need to be undertaken in the preparation of developing the attitude scale in a research. These stages are generally as follows [12-14]: 2. 2. 1. Constructing Attitude Items; 2. 2. 2. Consulting Expert Opinion; 2. 2. 3. Pilot Study; 2. 2. 4. Studying Reliability; and 2. 2. 5. Factor Analysis and Calculation of Reliability

#### *2. 2. 1. Constructing attitude items*

Before the development of an attitude scale about "Sustainable Environmental Education," existing attitude scales were investigated through an extensive literature review on what attitude is and how varieties of attitude scale and the attitude scale itself are prepared.

In the construction of attitude items;

1. Attention was paid not to listing of the factual conditions of all the attitude items, but rather to then written form of the expressions of the intended or unintended.
2. Emphasis was given on the openness, clarity and topic-oriented expressions in each item.
3. Attitude items were divided into halves, one being positive, the other half being negative. Taking into the rule of impartiality account, the numbers of positive and negative items are kept equal.
4. The scale was graded in the 5-point Likert Scale with "strongly agree," "agree," "neither agree nor disagree," "disagree" and "strongly disagree" [15]

Later, an item pool, which contains 67 attitude items, about sustainable environmental education was established.

*2. 2. 2. Consulting expert opinion*

Three area specialists carrying out environment education were consulted in order to understand whether the prepared attitude scale is appropriate or not for sustainable environmental education. Furthermore, two experts on measurement and evaluation were asked for assistance on the issue whether attitude items can measure teacher candidates' emotions, ideas and behaviors. Three linguistic specialists checked if the attitude items have lacking in terms of language.

*2. 2. 3. Pilot study*

After the construction of attitude items and getting feedback from experts on the issue; a pilot study was conducted on five senior teacher candidates studying at the Ahi Evran University, in the Elementary Science Education program. They were asked to read the "Sustainable Environmental Education Attitude Scale" and they were consulted about their ideas on attitude items. The period for answering the scale was determined as 35 minutes by calculating the teacher candidates' answer periods.

*2. 2. 4. Studying reliability*

The scope and structural reliability of the 5-point Likert type "Sustainable Environmental Education Attitude Scale," was examined

After formulating the scope in its last version, a pilot study was conducted. The candidate scale was applied to 400 teacher candidates studying in the programs of Social Sciences Education, Elementary Science Education and Primary Education in the Department of Elementary Education at the Ahi Evran University.

There are 21 negative and 46 positive attitude items in the applied scale. After the submission of the study, while the candidates' positive answers were graded from 5 to 1 as strongly agree (5), agree (4), neither agree nor disagree (3), disagree (2), strongly disagree (1); their negative answers to attitude items were graded from 1 to 5 as strongly agree (1), agree (2), neither agree nor disagree (3), disagree (4), strongly disagree (5). Having scored

**Table 1. Item-total correlation values**

| Attitude Item | Item-Total Correlation Value | Attitude Item | Item-Total Correlation Value | Attitude Item | Item-Total Correlation Value |
|---|---|---|---|---|---|
| **1** | **0.197** | **23** | 0.453 | **45** | 0.413 |
| **2** | **0.158** | **24** | 0.429 | **46** | 0.350 |
| **3** | **0.242** | **25** | 0.406 | **47** | 0.478 |
| **4** | 0.389 | **26** | 0.374 | **48** | 0.452 |
| **5** | 0.388 | **27** | 0.397 | **49** | 0.396 |
| **6** | 0.344 | **28** | 0.458 | **50** | 0.355 |
| **7** | **0.195** | **29** | **0.281** | **51** | 0.506 |
| **8** | **0.211** | **30** | **0.219** | **52** | 0.480 |
| **9** | 0.318 | **31** | 0.412 | **53** | 0.415 |
| **10** | **0.182** | **32** | 0.402 | **54** | 0.344 |
| **11** | 0.388 | **33** | **0.228** | **55** | **0.117** |
| **12** | 0.407 | **34** | 0.**224** | **56** | **0.169** |
| **13** | 0.386 | **35** | 0.366 | **57** | **0.099** |
| **14** | **0.165** | **36** | 0.428 | **58** | 0.443 |
| **15** | 0.384 | **37** | 0.338 | **59** | **0.167** |
| **16** | **0.242** | **38** | 0.435 | **60** | 0.437 |
| **17** | 0.360 | **39** | **0.261** | **61** | 0.505 |
| **18** | 0.427 | **40** | **0.287** | **62** | 0.332 |
| **19** | 0.471 | **41** | 0.461 | **63** | 0.344 |
| **20** | 0.476 | **42** | 0.582 | **64** | 0.394 |
| **21** | **0.298** | **43** | **0.216** | **65** | **0.020** |
| **22** | 0.396 | **44** | 0.482 | **66** | 0.376 |
| | | | | **67** | **0.085** |

the answers, then they were transferred to the SPSS 15.0 Program.

In the first place, item-total correlation value of the each item in the 67-item attitude scale was investigated. When looked at Table 1, it is visible that item-total correlation value diverges between 0,020 and 0,582. At this point, 22 attitude items, with item-total correlation value lower than 0.30, were removed from the scale. Thus, there were 45 attitude items left in the sustainable environmental education attitude scale.

*2. 2. 5. Factor analysis and calculation of reliability*

*2. 2. 5. 1. Factor analysis*

The data gathered throughout the research process might not be appropriate for factor analysis. The eligibility of the data for factor analysis can be examined by Kaiser-Mayer-Olkin (KMO) coefficient and Barlett Test. If the KMO is higher than 0.60 and the Barlett Test is meaningful, then it means that the data is suitable for factor analysis [16-17]. Kaiser-Mayer-Olkin (KMO) coefficient, which tests the adequacy of Sustainable Environmental Education Attitude Scale, is found to be 0.881. Values of Kaiser above 0.90 are considered to be perfect [18]. Thus, the prepared attitude scale is considerably close to perfect. In addition to that, Barlett Test ($\chi^2$ = 4918.006; df = 990; p = 0.000 < 0.05) was also found to be meaningful (Table 2).

**Table 2. Results of the KMO and Bartlett's Test**

| | |
|---|---|
| Kaiser-Meyer-Olkin (KMO) | 0.881 |
| Bartlett Test | 4918.006 |
| df | 990 |
| Sig | 0.000 |

$p < 0.05$.

After the item analyses of attitude items, exploratory factor analysis was conducted in order to determine the factor structure of the scale.

**Exploratory factor analysis**. The varimax perpendicular rotation technique was used in the exploratory factor analysis. Rotation scale was found to be 6 factored. As a result of the factor analysis, the 63rd attitude item's "extraction" value was determined as 0.177, and therefore, this attitude item was removed from the scale. Thereafter varimax was applied to the remaining 44 attitude items. Table 3 shows the results of the rotated principal component analysis. The attitude items (44) vunder analysis were gathered under 6 factors with eigenvalue higher than 1 (10.548, 3.369, 1.889, 1.640, 1.474, 1.441).

According to Table 4, eigenvalues of factors and the variance percentages that they explain are as follows: 1st Factor 10.548, 10.370 %; 2nd Factor 3.369, 9.459%; 3rd Factor 1.889, 8.001%; 4th Factor 1.640, 7.169%; 5th Factor 1.474, 5.991%; 6th Factor 1.441, 5.286%.

**Factor 1.**

The first factor constitutes the 10.370% of the whole variance. The data of the first factor, which is composed of 10 attitude items with factor load values ranging from 0.409 to 0.739, are given in Table 5.

When the 10 attitude items within the first factor were investigated, it was found that there are items that measure environmental policy concerning sustainable environmental education and environmental awareness in consumption. The first factor is named as **"Environmental policy and environmental awareness in consumption."** Cronbach's alpha internal consistency coefficient was found to be 0.846.

**Factor 2.**

The second factor constitutes the 9.459 % of the whole variance. The data of the second factor, which is composed of 11 attitude items with factor load values ranging from 0.434 to 0.671, are given in Table 6.

When the 11 attitude items within the second factor were investigated, it was seen that the 11 items within the Factor contain negative thoughts on sustainable environmental education. Thus, the second factor was named as "**Negative thoughts concerning environmental events and activities**." The second factor's Cronbach's alpha internal consistency coefficient was found to be 0.835.

**Factor 3.**

The third factor constitutes the 8.001 % of the whole variance. The data of the third factor, which is composed of 8 attitude items with factor load values ranging from 0.355 to 0.671, are given in Table 7.

When the 8 attitude items within the third factor were investigated, it was seen that there were items containing frugal behaviors for consumption in the sustainable environmental education. Thus, the third factor

was named **"Frugal behavior and thoughts for consumption."** Cronbach's alpha internal consistency coefficient of the third factor was found to be 0.775.

**Table 3. Rotated principal component analysis**

| Attitude Items | Factors Ve Factor Loads | | | | | |
|---|---|---|---|---|---|---|
| | F1 | F2 | F3 | F4 | F5 | F6 |
| m54 | 0.739 | | | | | |
| m45 | 0.699 | | | | | |
| m52 | 0.666 | | | | | |
| m28 | 0.609 | | | | | |
| m53 | 0.587 | | | | | |
| m51 | 0.534 | | | | | |
| m50 | 0.523 | | | | | |
| m18 | 0.467 | | | | | |
| m4 | 0.427 | | | | | |
| m20 | 0.409 | | | | | |
| m64 | | 0.671 | | | | |
| m12 | | 0.668 | | | | |
| m66 | | 0.624 | | | | |
| m36 | | 0.602 | | | | |
| m15 | | 0.600 | | | | |
| m13 | | 0.586 | | | | |
| m58 | | 0.540 | | | | |
| m6 | | 0.534 | | | | |
| m5 | | 0.532 | | | | |
| m62 | | 0.454 | | | | |
| m31 | | 0.434 | | | | |
| m49 | | | 0.675 | | | |
| m24 | | | 0.642 | | | |
| m48 | | | 0.610 | | | |
| m23 | | | 0.600 | | | |
| m47 | | | 0.535 | | | |
| m46 | | | 0.428 | | | |
| m42 | | | 0.395 | | | |
| m35 | | | 0.355 | | | |
| m22 | | | | 0.628 | | |
| m11 | | | | 0.609 | | |
| m9 | | | | 0.549 | | |
| m32 | | | | 0.523 | | |
| m17 | | | | 0.515 | | |
| m19 | | | | 0.385 | | |
| m41 | | | | | 0.580 | |
| m44 | | | | | 0.546 | |
| m60 | | | | | 0.538 | |
| m25 | | | | | 0.519 | |
| m61 | | | | | 0.507 | |
| m26 | | | | | | 0.581 |
| m37 | | | | | | 0.496 |
| m38 | | | | | | 0.496 |
| m27 | | | | | | 0.420 |

**Table 4. Eigenvalue's of six-factor sustainable environmental education factors, number of items within the factor, factor variances, increasing factor values as factors are added**

| Factors of Sustainable Environmental Education Attitude Scale | Eigenvalues | Number of Items Within the Factor | Factor Variances | Increasing Factor Values as Factors are added |
|---|---|---|---|---|
| **I** | 10.548 | | 10.370 | 10.370 |
| **II** | 3.369 | | 9.459 | 19.829 |
| **III** | 1.889 | | 8.001 | 27.830 |
| **IV** | 1.640 | | 7.169 | 34.999 |
| **V** | 1.474 | | 5.991 | 40.990 |
| **VI** | 1.441 | | 5.286 | 46.275 |

**Table 5. Attitude items within the first factor and their factor loads**

| Factor I. Cronbach Alpha: 0.846 | Variables | Attitude Items | Factor Loads |
|---|---|---|---|
| | m54 | I attend the activities of regional environmentalist groups0. | 0.739 |
| | m45 | I donate money to environmental organizations0. | 0.699 |
| | m52 | I prefer buying personal care products which are nature friendly0. | 0.666 |
| | m28 | Becoming a member of an environmental organization in order to save plant and animal species makes me happy0. | 0.609 |
| | m53 | I use environmentally conscious hygienic products (bleacher, detergent, etc0.)0. | 0.587 |
| | m51 | I buy less-energy consuming electronic products (telephone, lap-top, white goods)0. | 0.534 |
| | m50 | When voting, politicians' thoughts concerning environmental issues are of importance for me0. | 0.523 |
| | m18 | When I buy my own car one day, I buy the one which pollutes the environment less0. | 0.467 |
| | m4 | Protests about technological products that destroy the ozone layer should be organized0. | 0.427 |
| | m20 | The indifference of politicians and managers towards environmental issues makes me sad0. | 0.409 |

**Table 6. Attitude items within the second factor and their factor loads**

| Factor II0. Cronbach Alpha: 0.835 | Variables | Attitude Items | Factor Loads |
|---|---|---|---|
| | m64 | Ghettoization in cities is not an environmental problem0. | 0.671 |
| | m12 | Ghettoization is not an environmental problem0. | 0.668 |
| | m66 | Pesticides in agriculture do not cause environmental pollution0. | 0.624 |
| | m36 | There are enough animals in Turkey; therefore, the extinction of some species does not bother me0. | 0.602 |
| | m15 | The emergence of environmentalist groups stems from the need to socialize rather than protecting the environment0. | 0.600 |
| | m13 | The idea of protecting the environment is an invention of the West in order to inhabit the progress of developing countries0. | 0.586 |
| | m58 | I do not see any problem in throwing away consumed electricity resources (battery, disc, CD, etc0.) | 0.540 |
| | m6 | Turkey does not have a problem of desertification0. | 0.534 |
| | m5 | The attempts to save the sea turtles in some of the South coast are nothing but dealing with useless deed0. | 0.532 |
| | m62 | I prefer buying a cheap product, even though I know that it causes environmental pollution0. | 0.454 |
| | m31 | I do not care if the commodities I buy destroy the environment or not0. | 0.434 |

**Table 7. Attitude items within the third factor and their factor loads**

| Factor III Cronbach Alpha: 0.775 | Variables | Attitude Items | Factor Loads |
|---|---|---|---|
| | m49 | I do not leave the tap open when I wash the dishes or brush my teeth0. | 0.675 |
| | m24 | I use water and electricity frugally in my home0. | 0.642 |
| | m48 | I turn of the computer, if it is not going to be used for a few hours0. | 0.610 |
| | m23 | I use water and electricity frugally in the school and dorm0. | 0.600 |
| | m47 | I turn off the lights, when I leave the room0. | 0.535 |
| | m46 | In order to save water, I take shower as quick as possible | 0.428 |
| | m42 | I use low energy consuming lambs0. | 0.395 |
| | m35 | I think that sometimes people consume energy irresponsibly by driving cars when unnecessary0. | 0.355 |

**Factor 4.**

The fourth factor constitutes the 7.169% of the whole variance. The data of the fourth factor, which is composed of 6 attitude items with factor load values ranging from 0.385 to 0.628, are given in Table 8.

**Table 8. Attitude items within the fourth factor and their factor loads**

| Factor IV Cronbach Alpha: 0.669 | Variables | Attitude Items | Factor Loads |
|---|---|---|---|
| | m22 | I think that there should be more flowers and green areas in my neighborhood. | 0.628 |
| | m11 | I think that people who throw rubbish or spit on the ground should be intervened. | 0.609 |
| | m9 | Rapid population increase is a serious environmental problem. | 0.549 |
| | m32 | Instead of wood and coal, natural gas should be used in residential heating systems | 0.523 |
| | m17 | When I go shopping with my parents, I tell them not to buy vegetables and fruits with hormones. | 0.515 |
| | m19 | When we buy bulbs and electric household appliances, I warn my family to buy less energy consuming ones. | 0.385 |

When the 6 attitude items within the fourth factor were investigated, it was seen that the factor is composed of items about being sensitive to environmental problems. Thus, the fourth factor was named **"Sensitivity and intervention on environmental problems."** Cronbach's alpha internal consistency coefficient of the fourth factor was found to be 0.669.

**Factor 5.**

The fifth factor constitutes the 5.991 % of the whole variance. The data of the fifth factor, which is composed of 3 attitude items with factor load values ranging from 0.507 to 0.580, are given in Table 9.

**Table 9. Attitude items within the fifth factor and their factor loads**

| Factor V Cronbach Alpha: 0.686 | Variables | Attitude Items | Factor Loads |
|---|---|---|---|
| | m41 | I donate my unwanted products like furniture and clothes to those who can use them. | .580 |
| | m44 | I use papers double-sided while photocopying | .546 |
| | m60 | I use the blank areas or used papers for scrap. | .538 |
| | m25 | I feed hungry animals living on the street. | .519 |
| | m61 | I volunteer to take my part in the construction of environmental consciousness. | .507 |

When the 5 attitude items within the fifth factor were investigated, it was seen that the factor is composed of items about the use of recycled material in the sustainable environmental education. Thus, the fifth factor was named **"Using recycled material and volunteering."** Cronbach's alpha internal consistency coefficient of the fifth factor was found to be 0.686.

**Factor 6.**

The sixth factor constitutes the 5.286% of the whole variance. The data of the sixth factor, which is composed of 4 attitude items with factor load values ranging from 0.420 to 0.581, are given in Table10.

**Table 10. Attitude items within the sixth factor and their factor loads**

| Factor VI Cronbach Alpha: 0.569 | Variables | Attitude Items | Factor Loads |
|---|---|---|---|
| | m26 | Pitting dogs and roosters makes me sad. | .581 |
| | m37 | People eating sun flower seed especially in the summer months make me uncomfortable. | .496 |
| | m38 | I pack food and other products by using fewer bags. | .496 |
| | m27 | I am against the usage of circus animals for exhibition purposes. | .420 |

When the 4 attitude items within the sixth factor were investigated, it was seen that the factor is composed of items about the behavior towards animals and environment in the context of sustainable environmental education. Thus, the sixth factor was named **"Sensitivity for negative behavior towards animals and environment."** Cronbach's alpha internal consistency coefficient of the sixth factor was found to be 0.569.

*2. 2. 6. Studying reliability*

After conducting factor analysis, reliability calculations were processed for "**Sustainable environmental education**." Cronbach's alpha internal consistency coefficient was found to be 0.920.

## 3. Conclusion and suggestions

400 teacher candidates, studying in the programs of Social Sciences Education, Elementary Science Education and Primary Education in the Department of Elementary Education at the Ahi Evran University. Taking into account the item-total correlation value and factor analysis as a result of the pilot study, the 67-itemed attitude item scale was reduced to 44 items. At the same time, it was identified that "Sustainable Environmental Education Attitude Scale" has 6 factors and that the scale's Cronbach's alpha reliability coefficient is 0.904. Looking at the value, it can be argued that the scale is considerably reliable.

According to the data gathered from the scale, it was found that teacher candidates have also negative thoughts about sustainable environmental education (2$^{nd}$ factor). However, the necessary environmental education for sustainable development should be accurately and clearly explained to the future teachers. Therefore, in order to convert these negative ideas to positive ones, nature trips and conferences, panels and etc. convened by expert scientists in the context of sustainable environmental education should be organized. Furthermore, the designed "Sustainable Environmental Education Attitude Scale" can be used as a data gathering means for future researches.

Sustainability is a serious issue that individuals and institutions should focus on. In this sense, universities, state institutions, pedagogues and politicians should take serious responsibilities. Universities, in particular, should focus on the issue of sustainable environment and take initiatives about issues that need functionality. At the same time, other education institutions should also dwell upon these issues, while state institutions and politicians should make future-oriented investments and take the matter on a political ground instead of daily based initiatives [19].

1987 Brundtland report also mentions the need to open up space for sustainable environmental education at every level of education and in every discipline. Sustaining education, environment and development; individual's acquisition of attitude, value and awareness on this subject constitute a poignant key in the development of effective behavior [20]. In this context, it is recommended for every culture to include this concern within economic and education policies in the light of their own ecological and cultural values.

As the problems about sustainability do not stem one source, the solution will not be formed in only one step. For this reason, departing from world-wide problems, sustainability should be considered in terms of cultural and political issues at the country level. In this way, a holistic approach should be induced from small scaled solutions.

The effect of education on the attitude, ability and knowledge of the students are incredibly important; however, the attitude and behavior of students are directly related in their social environment and groups. Thus, establishing groups and organizing events about the topic would be more effective than giving formal education in certain institutions. Researches show that although the young generation has positive attitude in relation to environment, they do not know much about their life-styles and what they can do and that they most generally focus on saving energy [21].

However it is recommended to include environmental programs in curriculums for developing sensitivity towards sustainability and environmental problems, encompassing environmental issues in education is significantly hard, as the education itself is under the pressure of global economy [22]. In addition to that, formal education system is based on rational values, which is a part of the problem. Yet, in order to become a part of the solution education has to be revised in the light of sustainable cultural values [23-26].

Instead of education in terms of knowledge, education should be given in order to create awareness, i.e. student should be made conscious about matters and problems related to environment. After that, by considering the proposed solutions at the individual and institutional levels, students should be made conscious individuals.

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