

# Promoting Environmentally Sustainable Attitudes and Behaviour Vocational High School Students for Career Development

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## Abstract

This research explores interconnection between environmental values and environmental responsibility among vocational High School students. It is aimed to find out the reply of whether and to which degree the environmental values influence the development of the environmental responsibility of vocational schools students? A questionnaire containing ten basic environmental issues have been applied to 126 students from Selçuk University, Vocational High schools from Turkey. Students were tested on a five point Likert type scales which examined environmental responsibility and environmental values. The results of present study confirmed positive linear dependence between environmental values and environmental responsibility. On the basis of findings, it is possible to speculate that students who believe that without environmental protection, display a desirable attitudes towards environmental responsibility is impossible. It has been shown that there is a high degree of good relationship between students environmental values and their environmental responsibility. Education used to offer young health staff candidate a clear vision and well de-fined goals regarding their behavior in their workplace. But a better environmental curriculum and teaching techniques in schools may effectively influence the formation of environmental values among vocational school students for their future work practice.

**Keywords:** Vocational education, environmental issues, education, health staff

## 1. Introduction

Environmental education is considered essential to ensure the environmental quality. By providing knowledge to students, it is expected to promote awareness and develop positive attitude towards environment. To achieve a balance need between environmental elements and claims held by people living along, cooperation between the community and society are required and must act collectively.

To ensure success in environmental education has been introduced in the educational system from primary school to tertiary level. The purposes of environmental education are to produce people who are knowledgeable about bio-physical and its association with environmental problems, awareness of how to help in solving these problems and motivating people to work towards solutions.

Environmental quality in the future is depending on the students at present because they are future leaders and most qualified people in managing the environment. Therefore, this study aims to examine the knowledge, awareness, attitudes and practices towards the environment among students in Vocational High School students. It is forecasting that the finding of this study can pro-vide useful input in designing better environmental education in the future for Vocational High School students.

Attitudes are arising out of an individual's perceptions about his environment based on his experiences and value system (Robbins, 2001). The attitude of health staff candidates towards his work place reflects his perceptions about his organization and translates into his performance (Kraus, 1995). It well know that mostly medical staffs are highly qualified professionals, and their jobs require not only advanced technical skills, but also the art of communicating with people, in addition to an unswerving inclination to serve.

It is a fact that environmental education is mostly covers imparting knowledge of environmental problems, but mostly behavioural components of environmental education are neglected. The courses biology, geography, chemistry, physics are within the framework of environmental issues. It has been noted that there isn't enough environmental content being taught and not enough is to be found in Vocational school curriculums. The multi-disciplinary model of environmental education when put into practice not good enough for health staff education such as vocational High school students.

Schwartz's (1977) activation model which deals with the question of the personal obligation of an individual to behave in a pro-environmental way. The model assumes that the personal obligation of an individual to act for the benefit of others depends on: assigning personal responsibility and on the individuals' awareness of the consequences of their own behaviour. It is well know that the environmental knowledge environmental values and responsibility jointly predict proenvironmental intentions which in turn influence proenvironmental behaviours.

In our study we try to assets students preenvironmental values on environ-mental responsibility. The environmental values and behaviours are mostly related with individual behaviours, but there are a number of psychological factors mediating in between, and these factors in fact influence the formation of intention and the

intention-behaviour link. The psychological factors which mediate between values and proenvironmental intentions, in this study we investigated the direct relationship between values and responsibility.

## 2. Materials & Methods

The sample included 126 vocational High School students in the 18 – 26 years age group and there were 34.90 % females and 65.10 % males. This was a sample of Second years students from Medical laboratory techniques (n=29), medical monitoring techniques (n=31), odimeter techniques (n=20), aged-care techniques (n=17), physiotherapy techniques (n=9), anaesthesia techniques (n=20). The questionnaire contained 10 items on the environmental values personal environmental responsibility scale.

After receiving required instructions from the researchers, the students answered the questionnaire in the allotted time of 45 minutes. The research is a mass type research that was performed by the end of academic years of 2017. The five Point Likert-type scales was used to examine environmental responsibility among students. The most positive attitude earned a score of five points while the most negative attitude earned one point. The Cronbach's alpha coefficient was high ( $\alpha = .65$ ), the item-total correlation values ranged from .47 to .82.

**Table 1. A sample of the questionnaire applied to students in order to detect their environmental values and attitude.**

1. <i>Is it necessary the support of World Bank to detect earth pollution level especially underdeveloped counties?"</i>
2. <i>Do you really think thinning of the ozone layer in atmosphere is a threat all humanity today and tomorrow?</i>
3. <i>Do you really think of news about the pollution of sea, river and lakes should be exaggerated in media news?</i>
4. <i>Do you consider tap and drinking water in metropolis cities are really polluted, and are it necessary to filter water for using and drinking?</i>
5. <i>Do you think deforestation is really to be a disaster for Turkey in forthcoming years?</i>
6. <i>Do you think overgrowing populations is a serious environmental problem for earth in future?</i>
7. <i>Do you think under developed countries are really facing insufficient nourishment is the result of environmental problems?</i>
8. <i>Do you consider warning people who throw out their litter to the ground or spit out to streets?</i>
9. <i>Do you in belief the environmental groups which they usually claim to protect environment?</i>
10. <i>Do you think more media news and programs is necessary to keep awake people against environmental issues?</i>

One-way variance analysis for age and programs (One-way Anova) for gender has been used.

## 3. Findings

Results of descriptive study showed that vocational School students had high level of knowledge, awareness and attitudes towards environment. However, the level of practices towards environment was moderate. All aspects studied in knowledge, awareness and attitude constructs were at high level but each aspect indicated different level in the construct of practices.

Aspect that was at a low level was an "action involving law". On the other hand, the construct in the aspect of practices that was at the level of the medium was on "reduce waste", "being a responsible users" and "improve the knowledge to protect the environment". Based on gender, there were no significant differences in terms of knowledge, awareness and practices towards environment. However, there were significant differences in terms of attitudes which female students had higher attitude to environment as compared to male students (Table 2).

The gender and distribution of students are given in Table 2 & 3. The % and frequencies distribution of students' answers (for 10 questions) are given Table 4.

**Table 2. The gender distribution of students who attended to research**

<i>Gender</i>	<i>Number</i>	<i>Percept (%)</i>
<i>Female</i>	44	34.90
<i>Male</i>	82	65.10

**Table 3. The age distribution of students who attended to research**

<i>Age</i>	<i>Number</i>	<i>Percept (%)</i>
18	8	6.30
19	46	36.50
20	33	26.10
21	18	14.20
22	8	6.30
23	4	3.10
24	2	1.50
25	6	4.70
26	1	0.70

**Table 4. The % and frequencies distributions of students' answers (for 10 questions).**

<i>Students reply according to Likert-type scale</i>	<i>Strongly disagree</i>	<i>Disagree</i>	<i>Undecided</i>	<i>Agree</i>	<i>strongly agree</i>
<i>Questions</i>	<i>% n</i>	<i>% n</i>	<i>% n</i>	<i>% n</i>	<i>% n</i>
<i>Is it necessary the support of World Bank to detect earth pollution level specially underdeveloped counties?"</i>	46.8 (59)	23.8 (30)	15.8 (20)	6.3 (8)	7.1 (9)
<i>Do you really think thinning of the ozone layer in atmosphere is a threat all humanity today and tomorrow?</i>	26.99(34)	34.13 (43)	18.25 (23)	11.12 (14)	12 (9.53)
<i>Do you really think of news about the pollution of sea, river and lakes should be exaggerated in media news?</i>	10.32 (13)	7.9 (10)	30.16 (38)	41.27 (52)	10.32 (13)
<i>Do you consider tap and drinking water in metropolis cities are really polluted, and is it necessary to filter water for using and drinking?</i>	35.72 (45)	19.84 (25)	26.99 (34)	7.14 (9)	8.73 (11)
<i>Do you think i deforestations really to be a disaster for Turkey in forthcoming years.</i>	39.6 (50)	28.5 (36)	19.8 (25)	4.7 (6)	3.9 (5)
<i>Do you think Climate change is a serious environmental problem for earth in future?</i>	5.55 (7)	3.97 (5)	18.25 (23)	48.42 (61)	22.22 (28)
<i>Do you think overgrowing populations is a serious environmental problem for earth in future?</i>	50.80 (64)	30.12 (38)	9.52 (12)	6.35 (8)	3.17 (4)
<i>Do you think under developed countries are really facing insufficient nourishment is the result of environmental problems?</i>	41.27 (52)	32.54 (41)	19.84 (25)	3.18 (4)	3.18 (4)
<i>Do you in belief the environmental groups which they usually claim to protect environment?</i>	33.33 (42)	28.57 (36)	25.39 32	7.94 (10)	4.76 (6)
<i>Do you think more media news and programs is necessary to keep awake people against environmental issues?</i>	47.62 (60)	27.77 (35)	11.11 (14)	7.94 (10)	5.56 (7)

Based on shown in Table 4, there were differences between students view and awareness towards environment based on concepts.

In the first question we asked to students "Is it necessary the support of World Bank to detect earth pollution level specially underdeveloped counties?" Students claimed that the support of World Bank to detect air pollution unnecessary (Strongly disagree & Disagree and 46.8 (n=59), 23.8 (n=30) respectively. A small amount of students in belief that Word Bank should support underdeveloped counties for measuring air pollution level 6.3 % (n=8) and 7.1% (n=9), respectively.

We asked to students "Do you they really think thinning of the ozone layer in atmosphere is a threat all humanity today and tomorrow?" It has been shown that most of students do not consider thinning of ozone level a threat for humanity, at least in forthcoming days. They not in belief the seriousness of thinning ozone level on atmosphere. 26.99 (%) strongly disagree, % 34.13 (%) disagree so far published scientific report for thinning of ozone level. This may be sourced too much repeating this kind of changes in atmosphere. But so far nothing happened, may student be able to think.

It is possible in Daily news and broadcastings on TVs deal with the seriousness of sea, river and lake

pollution. It could be a better idea to ask tomorrow's health staff "Do they really think of news about the pollution of sea, river and lakes should be exaggerated in media news?" It has been seen that most of students in belief that "media broadcasting was exaggerating the environmental pollution issues. 41.27 (%) of students claimed that "there was exaggeration of environmental pollution broadcasting". But 30.16 (%) of students were unconscious of this matter.

The metropolis is a main water consumer, because of their population and industrial establishments. We want to know "Do students consider tap and drinking water in metropolis cities are really polluted, and is it necessary to filter water for using and drinking?"

It has been seen that most of students in belief that any filtration procedure unnecessary to use metropolis tap waters for using different aims. 35.72 (%) was strongly disagree, 19.84 % disagree, 26.99 (%) of attendants were not know this sort of trouble for tap waters.

Deforestation is a big matter for earth, specially rain forest are destroying too fast, as well as on the other sides are facing with the same deforestation. For this reason, we asked to students "Do they think deforestation is really to be a disaster for Turkey in forthcoming years." It was surprising that most of students claimed that deforestation is not lead to forestation in Turkey. Possible the climate of Turkey is an indicating factor for students' reply that, our country not takes place a place that very close to deserts. 39.6 (%) of students are strongly, 28.5 % of them disagree with this claims. Only a minority of them has been confirmed the forestation as a serious trouble.

We asked students "Do they think climate change is a serious environmental problem for earth in future?"

It has been seen that students are taking serious the climate changes, only 5.55 %, 3, 97 % of them, respectively not consider a serious issue climate changes for earth. An enormous of young health staff candidate (48, 42%, 22,22% respectively) took serious the climate changes for earth.

It has been asked to pupils "Do they think overgrowing populations is a serious environmental problem for earth in future?" Overwhelmingly all students have been considered the population increase and over population as a great threat for earth sources. 50.80 % and 30.12 % of students agree it was an acceptable situation for earth (respectively strongly disagree and disagree).

There is not reasonable use of sources on the earth, it is well known that under developed country people usually taking a very small piece of the sources. The famine is the main headache of this part of World. We asked students "Do they think under developed countries are really facing insufficient nourishment is the result of environmental problems?"

Most of students 41.27 % and 32.54 respectively in belief that environmental problems mostly have been sourced the developed countries were main cause of famine in under developed countries. The over consumption of sources in the earth from developed countries is main cause of climate changes, fertility loss of soil, pollution of natural sources that easily could be obtained via poor peoples.

We asked students "Do you in belief the environmental groups which they usually claim to protect environment?" It has been seen that most of students nor in believes that environmentalist group not protecting the earth as they claimed so far. This idea could come from they not seen any group so far actively established any protecting master plan for environmental values so far.

There is a general consensus that if we able to keep awake the people for environmental values it could be has a protective power. We asked students "Do they think of more media news and programs were necessary to keep awake people against environmental issues?"

It has been seen that most of students, 47.62% & 27.77 of them consider media power in order to protect environmental values and attitudes.

#### 4. Discussion

Growing public concern over the quality of the environment and the intensification of the environmental crisis has created among researchers a continuing interest in the study of environmental awareness and development factors for environmental responsibility among individuals. Values may be defined as "Criteria people use to select and justify actions and to evaluate people (including the self) and events" (Schwartz, 1992). Therefore, values may be viewed as an important part of the identity of each individual, on the basis of which they form various specific attitudes in specific situations (Rokeach, 1973).

Previous studies have shown that environmental values have a considerable influence on pro-environmental behavior, while some scientists have found that there are differences in the influence of certain types of values (Barr, Gilg, & Ford, 2005). It has been seen that anthropocentric and ecocentric values have a positive influence on pro-environmental behavior, where individuals with anthropocentric values behave in a pro-environmental manner for the sake of benefit to humans, and those with ecocentric values do so out of concern for nature and the biosphere.

Environmental responsibility can be defined as self-chosen limitations of the individual with regard to taking action depending on how it would affect other people (Bierhoff & Auhagen, 2001). The issue of the

formation of environmental responsibility is of vital importance because its viability is based on the conviction that it is possible to persuade individuals and institutions to accept responsibility for causing environmental problems and to change their everyday practices to mitigate negative consequences (Barr, 2003).

The sense of personal responsibility concerning environmental issues is connected to personal norms and belongs to the personal moral domain. Personal norms are defined as personal expectations about personal behavior in various situations (Abrahamse & Steg, 2009). These norms consist of feelings of personal moral obligations towards other people and/or nature. However, the sense of personal responsibility does not always have a moral aspect because people often feel obliged in a conventional manner (Kaiser, Ranney, Hartig, & Bowler, 1999). Obligation due to convention arises when people feel responsible under pressure of social norms. For example, tradition or state organs could make people feel obligated due to conventions.

If we also take into account the fact that the environmental values of an individual are formed in relation to the extent of their knowledge, perception and recognition of environmental problems, encounters with nature (Reser & Ben-trupperbäumer, 2005), environmental beliefs (Milfont & Duckitt, 2010), empathy, it can be concluded on the basis of the results of this study that values can be considered mediators between environmental responsibility on one hand and the aforementioned psycho-social factors on the other. Thus, for example, if students have a better perception of the gravity of environmental problems in their own immediate and wider surroundings, they will probably have a positive attitude towards the environment, and will probably have a more developed sense of responsibility towards protecting it.

Similarly, if students have better knowledge of environmental problems, they will better understand the consequences of these problems for their own lives and they will attach more importance to the environment and have far more developed pro-environmental intentions.

The environmental problems and social variables which directly affect the development of environmental values via environmental education. If the students recognize environmental hazards in their surroundings, and developing their awareness about the consequences of environmental threats the entire society and individuals can develop positive attitudes. The formation of environmental values among students will make it possible for them to form a sense of personal environmental responsibility, which can further lead to the formation of proenvironmental intentions and finally proenvironmental behavior.

In societies young people do not have positive models for the formation of clear pro-environmental goals. For these reasons they do not think of collective responsibility towards the environment as the sum of the responsibility of all individuals, but tend to associate it with the work of state. Considering this situation, the education sector is faced with the very complex task of reducing conflict between: personal and social, global and local, traditional and modern, long term and short term, competition and equality. Education should offer young people a clear vision and well defined goals regarding their behavior in modern society.

## 5. Conclusions

It is a suggestion that students should take a more responsible view of their own role in environmental protection if they think that the natural environment should be protected primarily for the good of the people. Students with more prominent environmental values are more expressive of the opinion that safeguarding the natural environment is unimaginable without personal efforts to be invested by each individual. It may be possible to say that individuals with less developed environmental values are less aware of the fact certain elements of the environment.

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