Secondary School Students' Attitude Towards Environmental Issues in Karachi Pakistan

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Abstract

This paper examined high school students' attitudes toward the environmental issues (pollution of air and water, overuse of resources, global changes of the climate etc.) with respect to school system. The questionnaire-based Relevance of Science Education (ROSE) Project was used to collect data from 10th grade 312 students. Data was analyzed using (SPSS) the non- parametric equivalent of the independent t-test. The results of the study indicate that there were significant difference between government and private schooling systems students' attitudes. Private schools students reported to have a significantly high degree of positive attitude towards environmental issues as compared to their government counterparts. The results of the study provide significant insights into students' attitude towards environmental issues towards discipline in both government and private secondary schools. Based on the results of the study, some recommendations have been put forward for policy and practice. Furthermore, the results of the study can be used as a base line for further studies. The authors offer suggestions, based on the results, for further research to identify reasons for differences between government and private school, so as to improve environmental education in Pakistani schools.

Key words: *Environmental attitude, Environmental education, Secondary school, gender, school systems*

Introduction

Environmental degradation has emerged as a serious issue in the world today. Human factor is the largest contributor to the environmental degradation (Makki, Abd-El-Khalick, & Boujaoude, 2003) which might pose serious threats to sustain life on earth (Gore, 1993). Therefore, there is a dire need to pay serious attention towards protecting life on earth. As teacher and teacher educator, it is our prime responsibility to take measures to overcome this problem. UNESCO[1] (2005) emphasizes the role of education in shaping attitudes, values, and behavior, while developing the capacities, skills, and commitments needed for building a sustainable future.

Dunlap, Gallup, & Gallup (1993) conducted an international survey on environmental values. In this survey, twenty four countries all over the world including developed and developing nations had participated. From each country, around one thousands sample selected. The survey's results showed that citizens of many developing nations were highly concerned about the state of the environment.

Studies generally tend to examine students' environment attitudes in relation to environmental knowledge, interest, behavior as well as socio-economic variables (e.g., Huang &

[1] *United Nations Educational, Scientific and Cultural Organization*

Yore, 2003; Makki, Abd-El-Khalick, & Boujaoude, 2003; Negev, Sagy, Garb, Salzeberg & Tal, 2008) have been carried out all around the world in developed as well as developing countries. Lavonen and Meisalo (2004) examined the Finnish students' environmental attitudes across gender. They found overall positive attitude towards environment across gender. In a comparative study by Huang and Yore (2004), they reported that both Canadian and Taiwanese 5th grade students held positive behaviour and attitudes towards the environment. Moreover, they expressed a high emotional disposition toward the environment and high concern about environmental problems and issues as well as a moderate level of environmental knowledge.

Makki, Abd-El-Khalick, and Boujaoude's (2003) study showed that Lebanese high school students held positive environmental attitudes but had inadequate environment knowledge. Young students' environmental attitudes were also investigated by many Turkish researchers (e.g., Alp, Ertepinar, Tekkaya, & Yilmaz, 2007; Taskin, 2009; Tuncer, Ertepinar, Tekkaya & Sungur, 2005). In one of these studies, Cavas, Cavas, Tekkaya, Cakiroglu, Kesercioglu, (2009) found that Turkish students generally have favorable attitudes and interest toward environmental issues. They seemed to be eager to find solutions to environmental problems and show optimistic trends about the future.

In ROSE (Relevance of Science Education) study Sjoberg & Camilla (2004) conducted survey in forty countries of the world. As part of ROSE study, the researcher examined how students relate environmental challenges. They found that students did not seem to be pessimistic about the global future. They put trust in themselves that they personally could influence what happens with the environment. However, the study showed no significant gender differences regarding environmental issues. Results of the study revealed that in general students have positive attitude towards environmental protection.

In summary, research studies which are carried out all over the world showed that students have positive attitude towards protection of environment. They are eager to find solutions of environmental issues.

Furthermore, school may play some role in the formation of students' views on the environment (Tuncer, Ertepinar, Tekkaya and Sungur, 2009). Kuhlemeier, Bergh, and Lagerweij(1999) also seems to agree by saying that , the student population (family background or prior achievement); the enthusiasm, experience and competence of the team of teachers; the curricular offering; the quality of instruction; and the social climate (Gamoran and Nystrand, 1994) may all play a part to develop attitude of students.

In Pakistan, government and private schooling systems are following the same curriculum (National curriculum, 2009). However, there is difference in teaching methodologies and resources in both the systems.. This study aims to explore students' attitude with respect to school system to know the environmental attitude of students. However, there is dearth of research studies which have been carried out to explore differences in students'/teachers' attitude towards environment across school systems. However, only a couple of studies have been carried out to address this issue all-around the world. A study was carried out by Tuncer, et al (2009) in Turkey to explore environmental attitudes of young people across school system. Results showed that students from the private school scored higher than their government counterparts. Another study was carried out by Shobeiri, Omidvar & Prahallada (2006) to know the environmental attitude of teachers of Iran and India across school system. Result showed that overall there is no significant difference in public and private school teacher environmental attitude.

In Pakistan, few studies have been carried out to explore students' learning out comes in various subject including science (Mirza, Munawer and Hameed, 1994, Das, Pandey, and Zajonc, 2006, LEAPS 2007, p.31). These studies have found that private children at private school have performed better as compare to their government counter parts in science and other subjects. As

science is closely related to environmental education, it was important to find out whether this difference in achievement translates in children attitude as well. These were the main reasons to select the variable (i.e. school system) to explore further through the study. Having said that, I am cognizant of the fact that there are number of other factors (Scio economic status, class room practice, Media) which contribute to environmental attitude. However, keeping in mind the scope of this study, one variable was selected.

State of Environmental Education in Pakistan

Some researchers argue that formal environmental education helps students to develop more favorable attitudes towards environment (e. g Lee, 2008). Therefore, it is reasonable to look at the environmental education context in Pakistan within this study. The Environmental Education (EE) in Pakistan is in its very beginning stages. There is not a well-established environmental education policy for Pakistan. It is important to note that in Pakistan, EE is not taught as a separate subject. However, EE concepts like energy, greenhouse effect, pollution; microorganism, recycling, and ecosystem have been incorporated in the science curriculum of the primary and secondary classes. Moreover, textbooks of Urdu, English, Social Studies and Islamic Studies at primary and secondary levels also carry some environmental education concepts, which are presented as part of content in various chapters. There is very little attempt to make connections between concepts, especially between science and environment and vice versa. Furthermore, the textbooks lack guidelines for teachers to teach these concepts not only to create awareness and develop attitudes, interests and skills among students but also to equip students with strategies to take action in order to preserve the earth's natural resources and to deal with environmental issues.

An overview of the discussion presented above appear to indicate that although there is no separate environmental education course in the secondary education in Pakistan, environment related ideas are intended to provide to all students from both the science and non-science groups through different subject areas. However, curriculum review revealed that most of the topics related to environment failed to portray adequately the relationship between human activity and the quality of environment in the presentation of content. Furthermore, National Education Policy (2009) has not given attention to the area of environmental education. Rabia (2010) argues that by keeping in view the importance of EE, environmental education should be given proper attention. For example, it is important to relate EE with daily life as this strategy would help to develop positive attitude towards environmental issues.

Purpose

The study aimed to investigate secondary school students' attitude towards environmental issues across school system.

Research Question

What is the difference in environmental attitude of secondary school students of government and private system in Karachi, Pakistan?

Methodology

Cross-Sectional Survey

The purpose of my study was to investigate the attitude of Grade Ten students towards environment. Accordingly, I opted for quantitative approach ,which seemed to be most appropriate as it aims to identify what a situation is like and the direction in which it is going (Punch,2005). There was no manipulation of variables required in the study and it only aims in describing the current attitude and differences across existing variables (i.e. school system and gender. An additional advantage of this design, according to Fraenkel & Wallen (2006) is that "it is quicker to conduct and cheaper to administer" (p.397). It produces a "snapshot" of a population at a particular point in time. (Cohen, Manion& Morrison, 2000)

This cross-sectional survey, involving the questionnaire proved to be an effective way of assessing environmental knowledge and attitude from large group as surveys can directly collect information from people about their ideas, feelings, and social and educational background (Fink & Kosecoff, 1998, p.1)

Furthermore, attitude is a positive or negative thinking about a person, object or issue (Abell and Lederman, 2007). Therefore, asking directly from individuals through an attitudinal survey research method was the most logical method for gathering information on attitude. (May, 2003).

Description of the Questionnaire

The questionnaire consists of 23 items divided into two parts. Part A, in which participants were asked to provide information about name, gender, age, and class and school system. In Part B, relevant section of ROSE[2] questionnaire was used. It is a Likert-type scale which includes ten sections (A to I). I chose section D which contains 18 items that focuses on students' attitude towards environmental issues column ranging from disagree to agree.

Sample

The ROSE questionnaire was translated from English to Urdu by five researchers working in the fields of Science Education, Urdu language and English language. Pilot study carried out for reliability. For drawing a representative, Multi stage cluster sampling sample of grade ten students from private and government schools of Karachi, I encountered two major constrains:

- Geographical spread of the target population
- Partially or complete unavailability of listing of schools

Keeping in mind the above constrains, from the eighteen towns, those towns were selected, which are half an hour's traveling distance from AKU-IED3. Of the eighteen towns, seven towns fulfilled this criterion. Of the seven selected towns, two towns were randomly selected in the first stage of sampling. In the second stage, 10 schools were selected from two towns through random sampling using SPSS. In the third stage, grade ten students were selected from each school by setting the criteria that the whole class will be included if the class size is thirty or more than thirty. Application of the questionnaires in the classroom took forty minutes. The sample of the study consist 312 students (154 girls and 158boys) who were enrolled in the 10th grade. A direct administration procedure was used for the survey.

[2] *http://www.ils.uio.no/forskning/rose/*

[3] *Aga Khan University, Institute for Educational Development*

Data Analysis

Data was analyzed by using SPSS. Inferential analysis was used for comparing the mean scores of students' environmental attitude across systems. Group comparison (Mann-Whitney) was used to find out differences across school systems. This analysis was carried out in two steps: (i) overall comparison; (ii) item-wise comparison. Before, comparing group analysis was carried out on overall score to explore general trends across all items.

Results

This section begins with a subsection of overall attitude of students followed by presentation of results at two levels to answer the two main research questions.

Over All Attitude Of Students Towards Environmental Issues

Table 3 shows the overall attitude of students at secondary level in Karachi, Pakistan. An examination of table shows that students hold moderately positive attitude in most of the items of ROSE questionnaire (section D "Me and environmental challenges"). The participants responses were distributed among the five options (i.e. strongly disagree, disagree, neutral, agree, strongly agree).The findings revealed that Pakistani students generally have moderately favourable attitudes towards environmental issues. They seemed to be eager to find solutions to environmental problems and showed optimistic trends about the future.

TABLE 1: *Overall Attitudes of Students*

Items	**Mean**	**Standard Deviation**
Threats to the environment are not my business (-)	2.50	1.44
Environmental problems make the future of the world look bleak	3.74	1.29
Environmental problems are exaggerated (-)	3.17	1.26
Science and technology can solve all environmental problems	3.29	1.20
I am willing to have environmental problems solve even if this means sacrificing many goods	3.79	1.00
I can personally influence what happened with the environment	3.59	0.95
We can still find solutions to our environmental problems	4.26	0.92
People worry too much about environmental problems (-)	3.14	1.32
Environmental problems can be solved without big changes in our way of living (-)	2.56	1.29
People should care more about protection of the environment	4.24	1.04
It is the responsibility of the rich countries to solve the environmental problems of the world	2.67	1.34
I think each of us can make a significant contribution to environmental protection	4.13	1.05
Environmental problems should be left to the expert (-)	2.30	1.17
I am optimistic about the future	3.70	1.12
Animals should have the same right to life as people	3.91	1.14
It is right to use animals in medical experiments if this can save human lives	3.46	1.21
Almost all human activity is damaging for environment	3.27	1.29
The natural world is sacred and should be left in peace	3.69	1.30

What follows is detailed analysis at item level.

The students scored highest in item 7 which is about the vision for future. It is worth mentioning that the students scored (M = 4.26). Students' images of the future affect actions in the present, they try to adapt what they imagine and acts that they wish for future. Future images are influenced by the background, experiences, knowledge. By knowing the youth's images of the future; we can better understand their present motivation, choices and actions. The images students' hold of the future will make the future of country. Showing positive attitude regarding finding solutions to environmental problems suggest that students seem more concerned about the environmental problems. They own the problems and are enthusiastic to solve them. It is interesting to note that the youth of Pakistan is ready to take action for their better future.

It is quite surprising to note that students scored relatively higher (M =4.24) in item 10, which is about protection of environment. They think that it is important for the society that environmental problems should be solved. Students showed their concern for environmental issues and they want to protect the environment by their personal contribution. This attitude shows their determination towards protection of environment.

For item 12, which deals with the feeling of influence environmental problem, students have demonstrated an overall positive attitude (M= 4.13). Interestingly, students seem to be more motivated towards taking action instead of depending on other sources to solve environmental issues. They think that each of them can make significant contribution to environmental protection. They have demonstrated more positive attitude in terms of understanding their own responsibility to solve environmental problems. The average low score on the negatively worded item (*environmental problems should be left to expert)* indicates that in general students have shown their sense of responsibility to participate in solving environmental problems. It is heartening to observe that in general students have demonstrated more positive outlook for influencing the development.

Responding to the item 15, which is about whether animals should have the same rights to live as people, students showed positive attitude (M =3.91). This item is related to the bio centric value. The positive attitude of student shows that they recognize the pleasures and pains of non-human subjects to be considered. They might be of the view that at least some of what counts in ethics is common to our kinship with animals, not just specific to our species. Common sense first and science later teaches that we humans have many similarities with animals. For survival on planet earth, all members of ecosystem are equally important. Positive attitude towards same right of life of animals is encouraging in the sense that students love and care for animals.

On the other hand, in three items (4, 11, 17) students showed their less positive attitude. It is interesting to see that both items 4 and 11, which focus on external sources (i.e. technology and rich countries) to solve problems, have scored relatively lower. It is encouraging to observe that in general participant students have demonstrated their sense of responsibility and relatively less reliance on external sources. Item 17 (almost all-human activity is damaging for environment) is regarding the protection of nature. Relatively low scores show that the students believe that not all-human activity is damaging for environment. By doing environmental friendly activities, they can protect their environment.

Overall results reveal that in general students have moderately favourable attitude towards environmental issues. They seem to be eager to find the solutions to environmental problems and show optimistic trends about the future.

Comparison Between Types Of Schools

This section presents the results of a comparative analysis between government and private school students' attitude towards environmental issues at the secondary level.

FIGURE 1: *Comparative Overview of Students' Attitude across School*

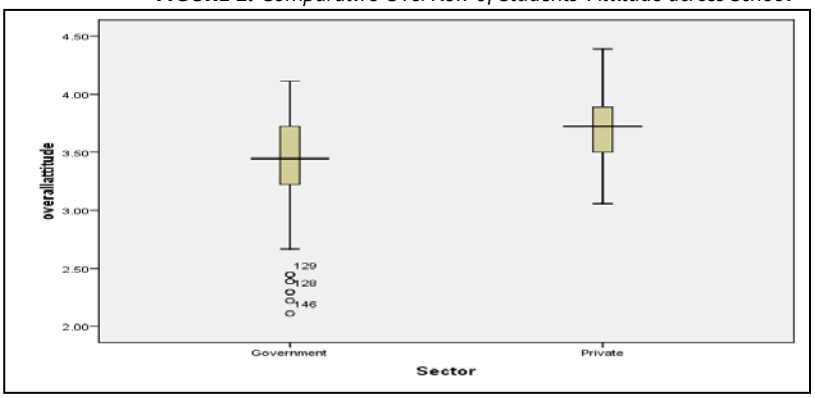

Figure 2 presents a comparative overview of overall attitude of students across school system.

The results shows that on average, students from private schools have demonstrated more positive attitude (M= 3.71; SD= 0.28) as compared to government school students (M=3.40; SD=0.43). The difference was found to be significant [U= 7024.000; p<0.01]. Interestingly, the three outliers at the lower end shown in the visual graphics were all boys. Further analysis was carried out to explore detailed patterns at item level.

Item-wise analysis

The table 4 presents a detailed analysis at item level by comparing the mean scores and the standard deviation of government and private schools students' attitude towards environment.

TABLE 2: *Comparison across System of Schools – Item-Wise Analysis*

Items	**Government M(SD)**	**Private M(SD)**	**Difference**
Threats to the environment are not my business (-)	3.1(1.5)	1.9(1.1)	U= 6.712; p<0.001
Environmental problems make the future of the world look bleak	3.4(1.4)	4(1.0)	U=9.544; p <0.001
Environmental problems are exaggerated (-)	2.9(1.1)	3.5(1.3)	U=8.500; p<0.01
Science and technology can solve all environmental problems	3.0(1.3)	3.5(1.0)	U=9.514; p<0.001
I am willing to have environmental problems solve even if this means sacrificing many goods	3.9(1.1)	3.6(0.8)	U=8.634; p<0.001

I can personally influence what happened with the environment	3.6(1.1)	3.6(0.8)	U=1.120; p>0.05 (ns[4])
We can still find solutions to our environmental problems	4.2(1.1)	4.3(0.6)	U=1.155; p>0.05 (ns)
People worry too much about environmental problems (-)	3.3(1.3)	2.9(1.2)	U=9.800; p<0.01
Environmental problems can be solved without big changes in our way of living (-)	2.6(1.3)	2.6(1.2)	U=1.187; p>0.05 (ns)
People should care more about protection of the environment	4.0(1.2)	4.4(0.8)	U=9.819; p<0.01
It is the responsibility of the rich countries to solve the environmental problems of the world	2.4(1.2)	2.9(1.3)	U=8.980; p<0.001
I think each of us can make a significant contribution to environmental protection	3.9(1.3)	4.3(0.8)	U=1.088; p>0.05 (ns)
Environmental problems should be left to the expert (-)	2.5(1.2)	2.2(1.1)	U= 1.044; p<0.05
I am optimistic about the future	3.6(1.3)	3.7(0.9)	U=1.134; p>0.05 (ns)
Animals should have the same right to life as people	4.0(1.3)	3.8(1.0)	U= 1.027; p<0.05
It is right to use animals in medical experiments if this can save human lives	3.4(1.4)	3.5(1.0)	U=1.191; p>0.05 (ns)
Almost all human activity is damaging for environment	2.8(1.4)	3.8(1.0)	U=6.923; p<0.001
The natural world is sacred and should be left in peace	3.3(1.5)	4.0(1.0)	U=9.113; p<0.001

The results depict that there are significant difference among government and private school students' attitudes regarding environment. Private school students scored higher than their government counterparts on most of the items. However, it was surprising to observe that government schools' students had an edge over their private counterparts on two positively stated items (i.e. 5 and 15). It is argued that private school students seem more willing to solve environmental problem; however, when it comes to sacrificing goods to solve these issues government schools have clearly exhibited more positive attitude. Similarly, government school students have shown more concern about animals' right to life.

It is important to note that the difference between the two school systems was not significant on six items including statement number 6, 7, 9, 12, 14 and 16. Interestingly, both the groups have exhibited an optimistic outlook for finding solutions of environmental problems ("we can still find solutions to our environmental problems" and "I am optimistic about the future"). Similarly, both groups are confident that environmental problems can be solved through "personal influence" and "significant contribution to environmental protection". As far as the "level of changes required to

[4] *ns: not significant*

solve environmental problems" is concerned both groups have equally shown a positive attitude towards this. In other words, sample students in both groups seem to have realised that they have to make drastic changes in their life style to 'fix' environmental problem – the first step is realizing and taking steps towards solving environmental problems. Students' from both systems are inclined towards 'saving human life' even if that means 'sacrificing animal life'. However, it would be unfair discussing results on item 16 without referring to students' views on item 15. Comparing an overall score on the two items indicates that on average students from both groups have shown relatively more positive attitude towards (government M = 4.0; private M= 3.8) equality of human and animal right to life (item, 15). However, when it comes to sacrificing animal life for saving human life, the score of both groups (item 16) have gone down (government M= 3.4; Private M= 3.5).

Based on results of overall comparisons, it was expected that private school would show positive attitude on majority of the items. As expected, private school students have shown more positive attitude on item $1^{[-]}$, 2, 4, $8^{[-]}$, 10, 11, $13^{[-]}$, 17 and 18. Of these nine items, the first five focuses more on students' attitude towards environment in terms of their sense of responsibility (e.g. people should care more about protection of the environment) and possible strategies to solve environmental issues (e.g. science and technology can solve all environmental problems). On the other hand, the last two emphasizes more on students' environmental attitude through their bio-centric values (e.g. the natural world is sacred and should be left in peace). It is also interesting to note, that the students seemed to value their own contribution in solving environmental issues instead of putting this important responsibility on others. Relatively lowest score (from both groups) on item 11 (it is the responsibility of rich countries to solve the environmental problem of the world) is a manifestation of their sense of responsibility.

Discussion

This section discusses the results in light of literature. Discussion is organised in two sections according to the research questions: (i) Comparison across school system; (ii) comparison across gender.

Comparison across School System

Comparison across school systems revealed that private school students claimed a more positive attitude towards environment than students from government schools.

This result is in contrast to the study of average environmental attitudes in government and private, state-dependent schools in 12 European countries (Avram and Dronkers, 2011).A majority of those studies found that there is no difference in environmental attitude of private and government schools system. There are only two exceptions to this general pattern. In particular, students in private government-dependent schools in Portugal have, on average, higher scores on the environment attitudes scale compared to their peers in public schools. Whereas the results are in align with the results of the study of Tuncer et al (2005), in which they found that in Turkey students' attending private schools were more aware of environmental problems, individual responsibility and national environmental problems, and had more positive attitudes toward solving the problems.

Item wise detailed analysis showed that private school students have shown a more positive behaviour about their personal contribution in environment protection (item 12). However, they seemed reluctant in sacrificing many goods (item 5) to solve environmental problems. This pattern indicates a lack of concern towards environmental problem on part of private school students. How

to interpret these findings? Blake's (1999) model may help to see barriers between environmental concerns and actions. He identifies three barriers to action: individuality, responsibility, and practicality. According to him, individual barriers are the ones that reside within the person, having to do with attitude and temperament. He claims that barriers are especially influential in people who do not have a strong environmental concern. Environmental concern is therefore outweighing by other conflicting attitudes. This seems to be the case with private education system students as well. They showed positive attitude for contributing to the protection of environment, however when the time comes for sacrificing goods, they seem reluctant to do so.

Although the evidence from the data reported that young people are not overwhelmingly optimistic about the future, environmental issues are clearly a matter of concern for them. Such issues deserve explicit curriculum attention. However, there are significantly different views of private and government education systems students' about a range of environment-related matters, including how to respond to the challenges related to the environment. It is thus important in any programme of environmental education to address directly some of the issues that divide students in their responses to the 18 statements (e.g., the extent to which individual action and/or sacrifice can bring environmental benefits) so that they can appreciate that, there are different ways of thinking about environmental challenges and responding to them. Underlying such thinking will be an understanding of different ways of explaining the origins of the present difficulties faced by the environment, whether in terms of risk society theory or not (Beck, 1992). The need is for diversity, sensitivity, and experimentation in planning and teaching programs of environmental education and encouraging students to ask appropriate questions and search for answers rather than simply acquiring a body of environmental knowledge. The goal should be to enable students to engage in an informed conversation with expertise about the environment and help them develop the confidence and skill to add to it and, when appropriate, to challenge it.

It would be important to dig these differences across system further. In Pakistan, government and private schools are following the same curriculum that is the National Curriculum of Pakistan. One possible explanation of this difference could be that, in most of the statements, private students positive attitude shows that they may have more exposure to environmental issues as compared to government schools through environmental project works and different teaching strategies. Teachers, working in private schools may have better awareness as compared to government schoolteachers (Larijani, 2010). Another reason could be that in private schools, the recent developments might be emphasized more, encouraged to participate in various programs on environment related issues, which is not so prominent in government schools. Even, Dinakara (2000) reported significant difference in environmental awareness between government and private school teachers. However, Sabhlok (1995) reported that government teachers were found to be well aware as compared to the private school teachers.

Given that many environmental problems and their solutions are science related, there is clearly a role for school science education in such an engagement. However, environmental education is not simply a matter for science educators. To the extent that such education requires the accommodation of the personal, social, and economic with the science as an integral whole, it constitutes a challenge to a conventional subject-based curriculum and pedagogy.

To protect and conserve the Environment, emphasis should be given to EE in both government and private system of education. In any of these education systems, teachers play a very significant role in developing a greater awareness about environment among students. This calls for a radical change in the way we think, live and work. Hence, it is clear that sustainable development calls for a paradigm shift in our educational systems right from the school level up to the university level. In fact, a sustainable way of life cannot be achieved without an appropriate

education system designed to internalize the principles of sustainability in the life and work of our youth.

Since, it is a government initiative to make EE an integral part of formal education through its national curriculum framework, considerable work is being done in the direction of integrating environmental concepts into the existing curriculum, developing new strategies, preparing instructional material for effective implementation of EE in the both systems. However, there is a dire need of training teachers in both the education systems of Pakistan, so that students of both the systems can develop their critical thinking skills to act positively towards environment in future as citizen of Pakistan.

Recommendations

For policy, it is recommended that teacher-training institutes should include environmental issues in their curriculum. Mere inclusion of topic would not work therefore, it is important to train teachers in pedagogical strategies to orient them as how to teach environmental education to students for critical thinking, problem solving, and action. For practice it is suggested that teachers both in government and private schools must re-examine traditional teaching strategies such as chalk-and – talk method that mostly do not match the learning styles of students. Teachers need to use variety of innovative teaching strategies such as cooperative learning strategies, while delivering their lessons. Besides that teacher should use problem solving teaching methods, so that critical thinking in students could be developed. Student should be encouraged to take positive actions in daily life so that they could be able to act positively in their practical life in future. In other words, action oriented pedagogy could be considered a first necessary step towards realizing and solving environmental problem. The heart of teaching lies in interaction and discussion with students. In the light of the results of the study, it is suggested that teachers must appreciate and encourage interactions and discussions in the classroom so that students can express and justify themselves.

Conclusion

The results of the study give us the overall impression of moderate attitude of students towards environmental issues. However, for positive changing of the prevailing level of attitude and hope among youth, there is a need of bringing change in different levels. For example, some rethinking need to be done regarding curriculum content and structure, teaching methods, teacher education and in-service training, and development of suitable resources. It is my hope that these efforts will make youth of Pakistan environmentally informed and friendly citizen.

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