




Climate Change: Students' Perspective on Eco-linguistic Elements in Secondary English Textbooks

Sundus Amjad¹ , Atifa Binth e Zia² , Mahrukh Masood³ 

¹University of Management and Technology (UMT), Lahore

²University of Management and Technology (UMT), Lahore

³University of Management and Technology (UMT), Lahore

Correspondence: atifa.zia@umt.edu.pk ²

ABSTRACT

Aim of the Study: This study is to explore the eco-pedagogical and eco-linguistic elements in the English textbooks of the Punjab Text board from class 6th to class 10th. Climate change is a growing concern for Pakistan as carbon emission in Pakistan has already raised to 123% and the increase in the development would increase the emission too. Awareness in students regarding such environmental issues can reduce its impact. Moreover, it may also make students more environmentally friendly.

Methodology: To check the awareness of about environment in students, through quantitative method, the opinions of students were taken through questionnaires and the data was run on SPSS to find the results.

Results: The results show that there is less environment related content in the books and it is not enough for develop an understanding of students related to environment and to enhance their language skills.

Conclusion: The study concluded that at secondary level books, very less content presented in Pakistan and this is the reason that most of the students at school level are not aware about climate change in Pakistan.

Keywords: Eco-linguistics; Eco-pedagogy; English Language Teaching.

Article History

Received:
September 19, 2022

Revised:
December 19, 2022

Accepted:
December 23, 2022

Published:
December 30, 2022

Introduction

In the past few decades, 'Climate Change' has become a growing concern as the scientists and researchers have presented a lot of data to explain the disaster that the world is going to face. That is the reason, climate change is the topic of discussion on almost all the forums including political, media and academic. This range of information has created range of perspectives because of the range of languages for this topic.

Different debates have different solutions about the same topic. Different platforms use different languages to communicate this topic and not only the difference of point of view lie but also there is a difference in the usage of language too. According to (Fløttum, 2010), language and social issues are closely knitted ones. It is important to understand that there is a direct link between language and climate change because it is the language that becomes a bridge between people of different areas to gather on the same platform

for the same concern. Different researchers have used different language including micro-level and macro-level aspects.

Language plays an important role in spreading awareness related to environment. Apart from the fact that there are almost 72 languages that are spoken in Pakistan but the good thing is that English is used in almost all the educational institutes. Students learn English language through textbooks from very initial stage of education. The government of Pakistan gives the authority to all the provinces to design their curriculums for all the educational institutes.

On the other hand, though the government of Pakistan is aware of the threat of climate change but it is very slow in making its policies related to the environment. This year Pakistan had to see worst flood and almost two third of the land of the country is in water but still the government does not make appropriate measures in this regard. The country is facing two issues related to the environment at the same time, one is the lack of awareness in the masses of the country and other is the lack of environment related discourse in different textbooks. To cope up with this issue, the government not only needs to spread the awareness related to environment in people of the country but it also has to pay focus on the development of such discourse which could help in accomplishing this goal. The present study is focus on the role of the Eco linguistics elements and their impact on the minds of students.

Background to Climate Change

The first person to use the term ‘green house’ was Frenchman Jean-Baptize in the year 1827. Afterward, it was in the 1980s when Svante Arrhenius provided that due to human activities, the climate of the planet is increasing day by day due to the human activities have increased the rate of carbon emission which is harmful to the planet as well as for living things (Wali et al., 2010). It was in 1972 when for the first time in any world forum this issue was highlighted. In the United Nations, it was brought in the knowledge of the world that this is the issue which the world is going to face in coming times. Intergovernmental Panel on Climate Change (IPCC) was established in 1988 to take a look over this issue and address this issue by taking an insightful knowledge of the reason behind this issue (Tokuç, 2013).

Different researchers from all over the world highlighted the reasons including financial, technical, and social behind this growing concern. Scientists have also provided the solutions to deal with this problem but they have been divided between nations in awareness of this issue. The divide is basically between the developed and developing nations. IPCC did not do any research individually and depended on the reports and researches of other scientists in the past few decades. The conclusion and point of view at which the whole world is right now is that the temperature is increasing day by day and the heat.

Climate Change and Pakistan

Pakistan is facing the issue of climate change and the government of the country is trying to make strategies to deal with this issue. The evidence of growing concern of climate change in Pakistan is the increasing temperature every year. The temperature of Pakistan is expected to increase to 5 degrees from 3 degrees and globally this temperature will increase to 6 degrees from 4 degrees. The National Climate Change Policy of Pakistan was published in 2012 (NCCP, 2012) in which the economic and social strategies have been described in detail which can help combat this threat. The government of the country set a 6% budget to deal with this problem in the budget 2010-2014. The main issue is the lack of awareness in the general public related to this growing concern.

The present study aims to analyze the role of language and construction of ecological practices in the English textbooks of secondary level. This study is a merge of analysis of Eco pedagogy as well as Eco linguistics involved in English textbooks of Punjab text board. For Eco pedagogical study, the study has adopted the framework of Freire and Gaard “Towards an eco-pedagogy of children’s environmental literature” (Gaard, 2008) which says that the text should involve ecological perspective and should help a child to develop a critical approach towards the existing issues.

Literature Review

Eco linguists are of an opinion that the language can affect the environment. The selection of the words can either affect the environment in a better way or adversely (Dash & Phil, 2019). Similarly, (Steffensen & Fill, 2014) explains that the emergence of Eco linguistics has helped the world by bringing this concern in front of the world. The initial step was taken by Haugen in 1970 when he wrote an article with the name “the study of the interaction between any given language and its environment”

Piersol & Timmerman, (2017) says that education is the basic foundation that helps in changing the minds of the students and shape the minds regarding these social and environmental perspectives. United Nations is trying its best to influence the nations to involve such Eco pedagogical strategies and Eco linguistic elements to aware the students about the growing concerns in the world.

Wu (2018) elaborates that not only humans are connected with one another, they affect one another but also, they are affecting other living being through these activities. Language helps us to think about the existing issues as well as it gives us a way to think about the upcoming issues.

Language works as a bridge between human being and environment. Eco linguistics addresses a lot of issues at the same time. (Morgan et al., 2006) adds by saying in his research that Eco linguistics serves human beings in different ways including telling the stories related to the environment and by helping informing the humans about the growing concerns. Along with this, he mentions that this is Eco linguistics that helps us to focus on things like the on-going injustices in the society which can be found in the discourse in different ways.

For the very first time, the term ‘Eco-pedagogy’ was discussed in Latin America. After that, a Brazil based educationist Paulo Friere used this term to shed light on the social and environmental injustices going in the world. Eco-pedagogy helps the students in two different ways, first it makes them able to understand the problems and then it helps them to become able enough to resolve these issues. Eco-pedagogy helps the students to understand different issues through different discourses. Eco-pedagogy broadens the spectrum of the minds of the students to enhance their perspectives about the things. It helps to understand the students about the sensitivity of the issues.

Capstick et al. (2015) adds by saying that the nations with time are getting more aware about climate change with the changing time but one cannot tell about the exact reason behind these changes. The discussion on the topic started in 1980s, in 2007 the developed nations started to discuss the topic and then in 2011 it became a voice of concern all over the world. The United States and United Kingdom started this awareness through media which the under-developed nations could not do. There exist still the elements including language, culture and ethnographical elements that need more research to find the lack behind the existing issues in developing nations.

Gadotti & Torres (2009) agrees with Freire’s study by saying that he presented the world with a different perspective that education can be used in different way for developing different perspectives and these perspectives are all about the things that are going around the world. Freire says that in an educational institute, student is taken as an empty bank where the teachers only keep on putting the information in the minds of the students which is wrong. He says that education must go hand in hand where students and teachers talk about the problem and present the possible issues. He discouraged the old school education system which promotes teacher centric classrooms. He adds by saying that nature and humans have a direct relationship by highlighting the concept *escolar cidadã* which basically is a Brazilian model of education. It says that education must have a space that can fulfill the needs of the society by involving such topics that can help the people in getting awareness and changing perspectives.

Gadotti (2010) continues his same concerns in his study of 2010 and argues that there is a dire need for revisiting curriculum and pedagogical strategies to precede the concept of sustainability. Eco-pedagogy can fulfill these needs as it can critically analyze the relationship between nature and human beings. Jean Piaget is the one who taught others that school curriculum should be designed in a way that it could benefit the

students but it lacks the point of sustainability as the meaningfulness of things to students is directly linked with the meaningfulness of the sustainability of the planet Earth. (Kramsch & Vork Steffensen, 2008) adds by saying in his study that we cannot separate language and education from the surroundings, they are associated with the existing issues.

Dharmendra Kumar et al. (2019) elaborates this stance by saying that eco-pedagogy is different than common pedagogy as it is more in favor for the people who are more interested in learning about life. The new generations through this education learns that what kind of injustices lie for the life on the planet and they learn to resolve these issues. It brings all the like-minded people under one umbrella where everyone is concerned about the revival of life of the extinct living beings.

Gaard (2008) in her theory provides a framework that analyzes the students' discourses to find out Eco linguistics elements. This theory provides the solutions with the problems too. She says that this theory brings the students out of the box as they not only become able to find the problem but also try to resolve the issues at their ends. Teachers can use out-class activities where student can directly interact with the environment. This helps in development of critical thinking of the students and enhance their relationship with the environment. Teachers can include such activities and assignments in classroom set-ups where the students can develop their skills.

McNaughton (2010) investigates in his research about the response on the UNESCO's directive of 2005-2014 issued related to Decade of education for Sustainable Development (ESD) in which the educationists of the world are given instructions to spread awareness in the young generation and to make them prepare regarding the present era's issues related to sustainability. According to this research, education can play an essential role in spreading awareness related to the environment through educational drama in citizens all around the globe.

Misiaszek (2015) adds in his research related to eco-pedagogy by saying that Education for Sustainable development is the product of Environmental education whose main agenda is to structure of education which tells that how the actions related to the environment can positively or negatively affect the societies without creating any oppression on the environment as well as on the societal elements. This study focuses on the reinvention of the pedagogical frameworks and to be more focused on the environment. The researcher argues that education must be a connection between violence in social and environmental contexts and deconstructs the idea of development by saying that recent developmental strategies are unsustainable for both human beings and the planet. It is good to enhance the students' understanding regarding the actual meaning of sustainability while living in this growing developmental age.

This research discusses the four aspects related to broader aspects of development, firstly, the pedagogy that emphasizes how the ideologies related to the economy can be problematic for the individuals and the globe; secondly, it focuses on the drawbacks of globalization; thirdly, it discusses the idea that how the idea of development is being politically exploited and made similar for all the nations; lastly, it focuses on the pedagogy that highlights the connection between living and development due to neoliberalism. The study after analyzing all the aspects emphasizes the critical re-invention of pedagogical strategies as suggested by Freire whose focus is not to eradicate the current pedagogical strategies to free this world from socio-environmental problems.

Research Question

Compare the opinion of students about the linguistic representation of environmental crisis in their textbooks?

Aim of the Study

The study aims to explore the role of pedagogy in spreading awareness related to environmental and environmental issues to young learners through English books in Pakistan. The study will also focus on the

lack of adequate eco-pedagogical strategies and eco-discourse behind the lack of awareness related to climate change in people of the country.

Significance of the Study

The significance of the study is to fill the gap that how with the help of language awareness related to climate change is spread in Pakistan and how the use of Eco-pedagogical approaches in English language books can create awareness regarding climate and the ways that can be adopted to overcome the issue.

The research will first explain the methods and then will discuss the strength and challenges faced during the research while using the selected methods and how these challenges were overcome.

Research Methodology

The study conducted as surveyed and data collected through questionnaire. Questionnaires were distributed in two different schools of Lahore city including Unique Public School and Al-Munir High School and data was collected from 100 respondents. The data was collected from different classes including 6th, 7th, 8th, 9th and 10th classes. Different numbers of students from these classes responded to the given questionnaires. SPSS software used to find the results of responses of students to the questionnaires.

Quantitative Methods

Quantitative methods include the quantification of data and analysis of data. Quantitative methods include the variables which can be quantified and interpreted using different software or methods. These methods focus on the aspects which can be quantified instead of the general interpretation of the variables. Quantitative research adds value to positive research work.

Survey Analysis using SPSS

SPSS is considered a useful tool while doing quantitative research. This software is used for scientific evaluation in which large sets of data are involved. As it is hard to do data analysis manually for a large set of data because of the time and effort it takes SPSS makes it easier for its users. The use of SPSS not only saves time but also helps the users to get authentic results. This software can be used with different technical methods to explain different variables. The software helps the users to generate output in the form of tables and figures. In the research sphere, SPSS is considered the best tool to analyze data, especially in social sciences. The researchers may collect data in different forms including questionnaires, interviews, and observations, and can generate quantitative results (Gogoi, 2020).

SPSS has different tools which can be used to perform different analyses in statistics. In Social sciences, the major task is to make hypotheses and then its validation can be checked through the use of SPSS. Different areas in science and social sciences use SPSS to attain their desired objectives. One of the main tasks in SPSS is to quantify the variables to measure the data. Variables can be of different types including independent variables, dependent variables, moderate variables, and intervening variables (Gogoi, 2020).

The research includes the analysis through SPSS where the data of 100 students has been collected from two different schools. Firstly, the questionnaire was made, then its authenticity was checked and then the questionnaire was used to collect the data. The questionnaire was made to collect data from different age groups that vary from 12-16 years and students of 6th standard to 10th standard and all genders. The questions were easy to understand for these age groups. Only 20 questions were included in the questionnaires to save the time of students and to prevent them from exhaustion or to keep on filling the form without interest. This thing helped the researcher to get the authentic data. The schools from where the data was collected were kind enough to cooperate with the researcher and allow students to go into the classrooms and engage with the students to get the form filled.

The only limitation that the researcher faced were the constraints due to Covid-19 and the closure of schools due to the lockdown. Students were hard to find through social media platforms and those with whom the research did contact, were not willing to fill the form in soft form. Though the questionnaire was circulated

to several people, a few people responded to it. The researcher had to visit the schools to collect data and it was easy to engage the students and to persuade them to fill out the forms. The questionnaire has been attached in the appendix. The below mentioned table shows the reliability of the questionnaire which is 0.7.

Analysis of Data and Findings

Table 1: *Reliability Statistics*

Cronbach's Alpha	N of Items
.699	20

Table 2: *Distribution of Respondents with Regard to their Class*

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	6 standards	14	14.0	14.0	14.0
	7 standards	27	27.0	27.0	41.0
	8 standards	25	25.0	25.0	66.0
	9 standards	22	22.0	22.0	88.0
	10 standards	12	12.0	12.0	100.0
	Total	100	100.0	100.0	

As shown in the table the respondents are from different classes ranging from class 6 to class 10. The results show the responses of 100 students who are from different classes are divided into different numbers. There are 14 students in the 6th class. 27 students from class 7th took part in responding to the questionnaires. 25 students from class 8th recorded their responses. From the 9th class, 22 students participated in responding to the questionnaires. Only 12 students from the 10th class responded to the desired questionnaires. Both female and male students of different age groups have participated in giving responses. The students have given responses according to their perceptions.

Table 3: *ANOVA*

		Sum of Squares	Df	Mean Square	F	Sig.
Total env	Between Groups	82.989	4	20.747	1.520	.203
	Within Groups	1297.121	95	13.654		
	Total	1380.110	99			
Total CC	Between Groups	17.053	4	4.263	.907	.463
	Within Groups	446.307	95	4.698		
	Total	463.360	99			
Total Air Pollution	Between Groups	48.150	4	12.038	1.859	.124
	Within Groups	615.240	95	6.476		
	Total	663.390	99			
Total Land Pollution	Between Groups	140.513	4	35.128	5.923	.000
	Within Groups	563.447	95	5.931		
	Total	703.960	99			
Total Noise Pollution	Between Groups	171.213	4	42.803	5.952	.000
	Within Groups	683.227	95	7.192		
	Total	854.440	99			
Grand total	Between Groups	1186.718	4	296.680	4.133	.004
	Within Groups	6819.322	95	71.782		

Total	8006.040	99
-------	----------	----

This table shows the output of ANOVA analysis and shows that whether there is a statistically significant difference between the mean groups or not. The results show that there is no significant difference between the mean groups of Environment, Climate Change and Air Pollution as the values of these groups are greater than 0.05. The results of the mean groups of Land Pollution, Noise Pollution are less than 0.05 which shows that there is a significant difference in the mean length of these variables between class 6th to class 10th.

Table 4: *Multiple Comparisons Tukey HSD*

Dependent Variable			Mean Difference (I-J)	Std. Error	Sig.	95% Confidence Interval	
						Lower Bound	Upper Bound
Total env	6 th	7 th	-2.60847	1.21695	0.211	-5.9927	0.7757
		8 th	-1.85143	1.23346	0.564	-5.2815	1.5787
		9 th	-2.25325	1.26329	0.389	-5.7663	1.2598
		10 th	-0.65476	1.45365	0.991	-4.6972	3.3876
	7 th	6 th	2.60847	1.21695	0.211	-0.7757	5.9927
		8 th	0.75704	1.02560	0.947	-2.0950	3.6091
		9 th	0.35522	1.06129	0.997	-2.5961	3.3065
		10 th	1.95370	1.28200	0.550	-1.6114	5.5188
	8 th	6 th	1.85143	1.23346	0.564	-1.5787	5.2815
		7 th	-0.75704	1.02560	0.947	-3.6091	2.0950
		9 th	-0.40182	1.08018	0.996	-3.4057	2.6020
		10 th	1.19667	1.29768	0.888	-2.4120	4.8053
	9 th	6 th	2.25325	1.26329	0.389	-1.2598	5.7663
		7 th	-0.35522	1.06129	0.997	-3.3065	2.5961
		8 th	0.40182	1.08018	0.996	-2.6020	3.4057
		10 th	1.59848	1.32607	0.748	-2.0891	5.2861
	10 th	6 th	0.65476	1.45365	0.991	-3.3876	4.6972
		7 th	-1.95370	1.28200	0.550	-5.5188	1.6114
		8 th	-1.19667	1.29768	0.888	-4.8053	2.4120
		9 th	-1.59848	1.32607	0.748	-5.2861	2.0891

The above-mentioned table shows that there is no significant difference in the relationship of the dependent variable environment and the dependent variables. The above-mentioned table shows that there is no such difference present. It shows that students have awareness related to environment.

Table 5: *Multiple Comparisons Tukey HSD*

Dependent Variable	(I) class	(J) class	Mean Difference (I-J)	Std. Error	Sig.	95% Confidence Interval	
						Lower Bound	Upper Bound
Total CC	6th	7th	-0.38095	0.71384	0.984	-2.3660	1.6041
		8th	-1.07429	0.72352	0.575	-3.0863	0.9377
		9th	-1.03247	0.74102	0.633	-3.0931	1.0282
		10th	-0.29762	0.85268	0.997	-2.6688	2.0736
	7th	6th	0.38095	0.71384	0.984	-1.6041	2.3660
		8th	-0.69333	0.60160	0.778	-2.3663	0.9796
		9th	-0.65152	0.62253	0.833	-2.3827	1.0797

	10th	0.08333	0.75199	1.000	-2.0079	2.1745
8th	6th	1.07429	0.72352	0.575	-0.9377	3.0863
	7th	0.69333	0.60160	0.778	-0.9796	2.3663
	9th	0.04182	0.63361	1.000	-1.7202	1.8038
	10th	0.77667	0.76119	0.845	-1.3401	2.8934
9th	6th	1.03247	0.74102	0.633	-1.0282	3.0931
	7th	0.65152	0.62253	0.833	-1.0797	2.3827
	8th	-0.04182	0.63361	1.000	-1.8038	1.7202
	10th	0.73485	0.77784	0.879	-1.4282	2.8979
10th	6th	0.29762	0.85268	0.997	-2.0736	2.6688
	7th	-0.08333	0.75199	1.000	-2.1745	2.0079
	8th	-0.77667	0.76119	0.845	-2.8934	1.3401
	9th	-0.73485	0.77784	0.879	-2.8979	1.4282

In the above-mentioned table, the result shows no significant difference. It shows that students have awareness related to climate change. The students might have read this concept in other disciplines while there is no such content related to it has been found in the textbooks.

Table 6: *Multiple Comparisons Tukey HSD*

Dependent Variable			Mean Difference (I-J)	Std. Error	Sig.	95% Confidence Interval	
						Lower Bound	Upper Bound
Total Air Pollution	6th	7 th	-2.02646	0.83812	0.119	-4.3572	0.3042
		8 th	-0.60571	0.84949	0.953	-2.9680	1.7566
		9 th	-0.92208	0.87003	0.826	-3.3415	1.4974
		10 th	-0.61905	1.00113	0.972	-3.4031	2.1650
	7th	6 th	2.02646	0.83812	0.119	-0.3042	4.3572
		8 th	1.42074	0.70633	0.269	-0.5435	3.3850
		9 th	1.10438	0.73091	0.558	-0.9282	3.1369
		10 th	1.40741	0.88292	0.505	-1.0479	3.8627
	8th	6 th	0.60571	0.84949	0.953	-1.7566	2.9680
		7 th	-1.42074	0.70633	0.269	-3.3850	0.5435
		9 th	-0.31636	0.74392	0.993	-2.3851	1.7524
		10 th	-0.01333	0.89372	1.000	-2.4986	2.4720
	9th	6 th	0.92208	0.87003	0.826	-1.4974	3.3415
		7 th	-1.10438	0.73091	0.558	-3.1369	0.9282
		8 th	0.31636	0.74392	0.993	-1.7524	2.3851
		10 th	0.30303	0.91327	0.997	-2.2366	2.8427
	10th	6 th	0.61905	1.00113	0.972	-2.1650	3.4031
		7 th	-1.40741	0.88292	0.505	-3.8627	1.0479
		8 th	0.01333	0.89372	1.000	-2.4720	2.4986
		9 th	-0.30303	0.91327	0.997	-2.8427	2.2366

The above table does not show any significant difference between the values of the selected variables. It shows that student know the concept of air pollution. Though, this concept is not present in all the selected textbooks but the students read it in the textbook of 7th class and this is the reason they showed their understanding towards this concept.

Table 7: Multiple Comparisons Tukey HSD

Dependent Variable			Mean Difference (I-J)	Std. Error	Sig.	95% Confidence Interval	
						Lower Bound	Upper Bound
Total Land Pollution	6 th	7 th	-2.64286*	0.80207	0.012	-4.8733	-0.4124
		8 th	-2.68286*	0.81295	0.012	-4.9436	-0.4222
		9 th	-3.82468*	0.83261	0.000	-6.1400	-1.5093
		10 th	-3.64286*	0.95807	0.002	-6.3071	-0.9786
	7 th	6 th	2.64286*	0.80207	0.012	0.4124	4.8733
		8 th	-0.04000	0.67595	1.000	-1.9197	1.8397
		9 th	-1.18182	0.69947	0.445	-3.1270	0.7633
		10 th	-1.00000	0.84494	0.761	-3.3497	1.3497
	8 th	6 th	2.68286*	0.81295	0.012	0.4222	4.9436
		7 th	0.04000	0.67595	1.000	-1.8397	1.9197
		9 th	-1.14182	0.71192	0.499	-3.1216	0.8379
		10 th	-0.96000	0.85527	0.794	-3.3384	1.4184
	9 th	6 th	3.82468*	0.83261	0.000	1.5093	6.1400
		7 th	1.18182	0.69947	0.445	-0.7633	3.1270
		8 th	1.14182	0.71192	0.499	-0.8379	3.1216
		10 th	0.18182	0.87398	1.000	-2.2486	2.6122
	10 th	6 th	3.64286*	0.95807	0.002	0.9786	6.3071
		7 th	1.00000	0.84494	0.761	-1.3497	3.3497
		8 th	0.96000	0.85527	0.794	-1.4184	3.3384
		9 th	-0.18182	0.87398	1.000	-2.6122	2.2486

The above table shows that there is a significant difference between the values of the dependent variable of class 6th to class 7th, class 6th to class 8th, class 6th to class 9th and class 6th to class 10th. It means there is discussion of pollution in other class while there is a lack of such discussion in the book of class 6th.

Table 8: Multiple Comparisons Tukey HSD

Dependent Variable			Mean Difference (I-J)	Std. Error	Sig.	95% Confidence Interval	
						Lower Bound	Upper Bound
Total Noise Pollution	6 th	7 th	-1.62963	0.88322	0.354	-4.0857	0.8265
		8 th	-4.08000*	0.89520	0.000	-6.5694	-1.5906
		9 th	-2.36364	0.91685	0.083	-4.9133	0.1860
		10 th	-3.00000*	1.05500	0.042	-5.9338	-0.0662
	7 th	6 th	1.62963	0.88322	0.354	-0.8265	4.0857
		8 th	-2.45037*	0.74434	0.012	-4.5203	-0.3805
		9 th	-0.73401	0.77024	0.875	-2.8759	1.4079
		10 th	-1.37037	0.93042	0.583	-3.9578	1.2170
	8 th	6 th	4.08000*	0.89520	0.000	1.5906	6.5694
		7 th	2.45037*	0.74434	0.012	0.3805	4.5203
		9 th	1.71636	0.78395	0.193	-0.4637	3.8964
		10 th	1.08000	0.94181	0.781	-1.5390	3.6990
	9 th	6 th	2.36364	0.91685	0.083	-0.1860	4.9133
		7 th	0.73401	0.77024	0.875	-1.4079	2.8759
		8 th	-1.71636	0.78395	0.193	-3.8964	0.4637

	10 th	-0.63636	0.96241	0.964	-3.3127	2.0400
10 th	6 th	3.00000*	1.05500	0.042	0.0662	5.9338
	7 th	1.37037	0.93042	0.583	-1.2170	3.9578
	8 th	-1.08000	0.94181	0.781	-3.6990	1.5390
	9 th	0.63636	0.96241	0.964	-2.0400	3.3127

The above given table shows that there is a significant difference of the dependent variable Noise pollution in class 6th and class 8th, and class 6th and class 10th. Furthermore, there is a significant difference between the relationship of class 7th and class 8th. This data shows that there is no such content in the textbooks of class 8th and class 10th.

Table 9: *Multiple Comparisons Tukey HSD*

Dependent Variable			Mean Difference (I-J)	Std. Error	Sig.	95% Confidence Interval	
						Lower Bound	Upper Bound
Grand total	6 th	7th	-9.28836*	2.79033	0.011	-17.0479	-1.5288
		8th	-10.29429*	2.82818	0.004	-18.1591	-2.4295
		9th	-10.39610*	2.89657	0.005	-18.4511	-2.3411
		10th	-8.21429	3.33304	0.108	-17.4830	1.0545
	7 th	6th	9.28836*	2.79033	0.011	1.5288	17.0479
		8th	-1.00593	2.35157	0.993	-7.5453	5.5335
		9th	-1.10774	2.43340	0.991	-7.8747	5.6592
		10th	1.07407	2.93947	0.996	-7.1002	9.2483
	8 th	6th	10.29429*	2.82818	0.004	2.4295	18.1591
		7th	1.00593	2.35157	0.993	-5.5335	7.5453
		9th	-0.10182	2.47672	1.000	-6.9892	6.7856
		10th	2.08000	2.97543	0.956	-6.1943	10.3543
	9 th	6th	10.39610*	2.89657	0.005	2.3411	18.4511
		7th	1.10774	2.43340	0.991	-5.6592	7.8747
		8th	0.10182	2.47672	1.000	-6.7856	6.9892
		10th	2.18182	3.04051	0.952	-6.2734	10.6371
	10 th	6th	8.21429	3.33304	0.108	-1.0545	17.4830
		7th	-1.07407	2.93947	0.996	-9.2483	7.1002
		8th	-2.08000	2.97543	0.956	-10.3543	6.1943
		9th	-2.18182	3.04051	0.952	-10.6371	6.2734

*. The mean difference is significant at the 0.05 level.

The above given table shows that there is a significant difference between class 6th and class 7th, class 6th and class 8th, and class 6th and class 10th. It shows that there is either less discussion or almost no discussion in the textbook of all these classes.

Conclusion

The results of most of the statements pay heed towards two main things. One is the lack of environmental text in the English textbooks of Punjab text boards due to which students lack the awareness related to the environmental issues and the reasons behind these issues. To conclude, it can be said that the secondary level text books lack data related to environment. This general lack leads towards the lack of awareness of environmental issues in students.

Acknowledgments

None.




Conflict of Interest

Authors have no conflict of interest.

Funding Source

The authors received no funding to conduct this study.

ORCID iDs

Sundus Amjad¹  <https://orcid.org/0000-0002-7537-8054>
Atifa Binte Zia²  <https://orcid.org/0000-0002-7537-8054>
Mahrukh Masood³  <https://orcid.org/0000-0003-3608-6312>

References

- Agyekum, S. (2019). Teacher-Student Relationships: The Impact on High School Students. *Journal of Education and Practice*, 10(14) 121-122.
- Amit Chaturvedi, R. K. (2014). Environmental Awareness Through Education. *Shaikshik Parisamvad (An International Journal of Education)*, 7(12) 9-13.
- Capstick, S., Whitmarsh, L., Poortinga, W., Pidgeon, N., & Upham, P. (2015). International trends in public perceptions of climate change over the past quarter century. *Wiley Interdisciplinary Reviews: Climate Change*, 6(1), 35–61.
- Dash, R. K. (2019). What is Eco-linguistics. *Language in India*, 19(5), 379-384.
- Desk, M. (2019, December 5). *Pakistan ranks fifth on global climate risk index*. DAWN.COM. <https://www.dawn.com/news/1520535>
- Erlingsson, C., & Brysiewicz, P. (2017). A hands-on guide to doing content analysis. *African journal of emergency medicine*, 7(3), 93-99.
- Fløttum, K. (2010). A linguistic and discursive view on climate change discourse. *ASp. la revue du GERAS*, 58, 19-37.
- Freire, P. (2000). Pedagogy of the oppressed: 30th anniversary. *Continuum*.
- Gaard, G. (2008). Toward an ecopedagogy of children's environmental literature. *Green Theory & Praxis: The Journal of Ecopedagogy*, 4(2), 11-24.
- Gadotti, M. (2010). Reorienting education practices towards sustainability. *Journal of education for sustainable development*, 4(2), 203-211.
- Gadotti, M., & Torres, C. A. (2009). Paulo Freire: education for development. *Development and change*, 40(6), 1255-1267.
- Gogoi, P. (2020). Application of SPSS programme in the field of social science research. *International Journal of Recent Technology and Engineering*, 8(5), 2424-2427.
- Jacobs, G. M., Lie, A., & Amy, S. (2006). An Indonesia Example of Teaching English via Environmental Education. *Online Submission*.

- Khan, A.W., Javed, M.N., Safdar, G. (2017). Role of Print Media in Pak-India Water Dispute: A Study of The Nation and The Hindu 2010-2014. *Global Media Journal Pakistan Edition*, 10(2), 1-26.
- Kramsch, C., & Steffensen, S. V. (2008). Ecological perspectives on second language acquisition and socialization. *Encyclopedia of language and education*, 8, 17-28.
- Kumar, M. D., Narayanan, V., Manikandan, R., Parameswaran, A., Kumar, P., Reddy, G. S. R. S., & Rastogi, S. (2019). Role of extra oral monofocal distractor device in the correction of the facial asymmetry, sleep apnoea, and quality of life associated with TMJ ankylosis. *Journal of Stomatology, Oral and Maxillofacial Surgery*, 120(3), 203-210.
- McNaughton, M. J. (2010). Educational drama in education for sustainable development: Ecopedagogy in action. *Pedagogy, Culture & Society*, 18(3), 289-308.
- Misiaszek, G. W. (2015). Ecopedagogy and citizenship in the age of globalisation: Connections between environmental and global citizenship education to save the planet. *European Journal of Education*, 50(3), 280-292.
- Morgan, E. F., Longaker, M. T., & Carter, D. R. (2006). Relationships between tissue dilatation and differentiation in distraction osteogenesis. *Matrix Biology*, 25(2), 94-103.
- Nisbet, M. C. (2009). Communicating climate change: Why frames matter for public engagement. *Environment: Science and policy for sustainable development*, 51(2), 12-23.
- Of, M. (2012). National Climate Change Policy Government of Pakistan.
- Piersol, L., & Timmerman, N. (2017). Reimagining environmental education within academia: Storytelling and dialogue as lived ecofeminist politics. *The Journal of Environmental Education*, 48(1), 10-17.
- Rahman, M. S. (2020). The advantages and disadvantages of using qualitative and quantitative approaches and methods in language “testing and assessment” research: A literature review.
- Safdar, G., Khan, A.W. (2020). E-Learning: Current Scenario of Internet and Educational Learning among University Students of Punjab, Pakistan. *Journal of Educational Research*, 23(1), 171-185.
- Shabir, G., Safdar, G., Shah, S.R.A., Asim, M. (2014). Iranian Higher Educational System and its Socio-Political Impacts in 21st Century. *Journals of Educational Research*, 17(2), 107-116.
- Steffensen, S. V., & Fill, A. (2014). Ecolinguistics: the state of the art and future horizons. *Language sciences*, 41, 6-25.
- Thor, D., & Karlsudd, P. (2020). Teaching and fostering an active environmental awareness design, validation and planning for action-oriented environmental education. *Sustainability*, 12(8), 3209.
- Tokuç, A. (2013). United Nations Intergovernmental Panel on Climate Change. *Encyclopedia of Corporate Social Responsibility*, 2625–2632. https://doi.org/10.1007/978-3-642-28036-8_16
- Wali, M. K., Evrendilek, F., & Fennessy, M. S. (2009). *The environment: science, issues, and solutions*. CRC Press.
- Wu, Y. (2018, September). Ecological discourse analysis. In *2018 4th International Conference on Social Science and Higher Education (ICSSHE 2018)*. Atlantis Press.