

TRANSNATIONAL PERSPECTIVES IN THE ACADEMY: AN EXPLORATION OF  
CLIMATE CHANGE EDUCATION THROUGH ARTS AND HUMANITIES IN  
CANADA AND BANGLADESH

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## ABSTRACT

The aim of this Major Research Project is to investigate transnational perspectives of university teachers (in Bangladesh and Canada) who are currently teaching climate change education through texts from Arts and Humanities and different teaching strategies. The emphasis is given on the emergence of teaching climate change education in the context of South-Asian countries like Bangladesh. A comparison with the teaching context of Canada helps us to understand the importance of climate change education at university level worldwide. Through this study, I aim to find a means of encompassing these methods into my teaching pedagogy and future research. I am interested in how these wisdoms have an impact on overall student learning in an effort to promote climate change education and how students could learn more from the local communities of climate refugees.

To proceed the study, I have used an auto-ethnography qualitative research method and interviewed four professors. I have given my own experiences and viewpoints as a student along with the professors' teaching tactics and suggestions. In the thematic data analysis, four themes came out: place-based education, institutional structures-curriculum and courses (including interdisciplinary), compassion and empathy, environmental landscapes in fiction and Non-fictions. The research showed that all the professors carry more or less the same notion. All of them showed equal importance to climate change education and they believe it needs more attention in academic sectors. They all considered such an approach as a multipurposed education system that can facilitate holistic development by affecting students' psychological conception of the world around them, especially in the present post-pandemic situation.

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This journey of writing my MRP has been the most incredible experience as I have learned the value of education from diverse epistemological perspectives.

## Chapter 1: Introduction

### 1.0 Introduction

Environmental change is a burning concern for all scholars and educators of the 21<sup>st</sup> century. The rapid increase of the climate crisis is a global topic of discussion. News networks continuously show devastating effects of climate changes on agriculture, natural resources, food consumption, and so on. Human actions and their regular ingrained habits are the main causes of today's climate crisis. It is evident that humanity's increased use of fossil fuels such as coal, oil and gas to generate electricity, usage of transport, power manufacturing and rapid increase of industrialization resulted in the present crisis of climate change. Under such circumstances, it seems obvious that universities must step forward with academic plans to educate the youth regarding these factors. Universities can help cultivate awareness and sense of responsibility in the new generation to tackle the climate emergency and build a sustainable world. By navigating the new realities of climate change, universities can incorporate academic lesson-plans to educate students on climate change education and sustainability topics to fight for climate justice on a global scale. If we evaluate a country based on its most needed education requirements, we will find that climate change education is in high demand for all sorts of students around the world.

As a former South-Asian undergraduate student and a teacher, I have noticed that despite the urgency of teaching youth about this burning issue, many universities in South-Asia and many other parts of the world are still not giving this subject sufficient attention. During my undergraduate studies in English literature and language, I realized that using arts and humanities subjects, like English literature, could be very effective to teach

climate change education to youth. Most of the settings and themes in literature carry various natural landscapes and climatic changes which I think can be used as examples for teaching climate change education in the classroom. As a South-Asian by birth and with my experiences so far, I would say that despite having interesting initiatives in many fields and subjects, some South-Asian academics are still missing the idea to give climate change education top priority in the academic curriculums.

The most common reason behind this I assume is the lack of resources or teaching strategies. I also recognize that it is likely much more complicated than this. In that case, I think that English literature can be amalgamated together with climate change education and can be used to promote a curriculum that targets to discuss and teach actions related to recent problems with the environmental issues. Sulzer makes this point more clear:

English education has an important role to play in providing a basis in not only understanding the facts about pressing issues like the climate crisis, COVID-19, or other topics, but also the complexity of actions, belief, and power that shape these topics in the social world. To do this important work, English educators must enact a type of planning that explicitly puts canonical works in conversation with contemporary concerns. (Sulzer, 2021 p.13)

Moreover, acquiring teaching strategies from other nations can help South Asian teachers to structure better lesson plans. Hence, I wanted to learn more about modes of teaching climate change education and ways to effectively engage in discourse. I am curious to explore how South-Asian (Bangladesh) and North-American (Canada) universities are teaching climate change topics with fiction and non-fiction and what are the similarities and dissimilarities between them.

### 1.1 Purpose of the Study

The purpose of this study is to investigate transnational perspectives of university

teachers who are currently teaching climate change education through literary productions of Arts and Humanities and to make a comparison between their teaching strategies. Through this study, I aim to find means of encompassing these methods into my teaching pedagogy and future research. I am interested to see how these wisdoms have an impact on student learning overall in an effort to promote climate change education through subjects like English Literature and how students could learn more from the local communities of climate refugees. To add, what role might such an approach of teaching play in the promotion of climate change education in South-Asian universities like Khulna University, Bangladesh and then compare it with climate change education teaching in York University, Canada.

## 1.2 Research Questions

I have observed that in the urban areas of South-Asian territories such as Khulna city in Bangladesh, there are fewer opportunities for teachers to integrate climate change education. The reason behind this is the many shortcomings of resources. On the other hand, to cope with the fast pace of commercial world and challenges to survive in the corporate world of North American territories such as Toronto, students and teachers have less opportunities or interests to think about protecting the environment. In that case, using Arts and Humanities texts with different learning strategies for climate change education serves the multi-purpose role of teaching within a fixed time. It not only assures a career opportunity in the corporate world but also turns a student into an eco ambassador for the future.

As a student of English literature and a teacher, I could see ample scope to

amalgamate English literature with climate change education and I strongly promote learning more ways of using it in post-pandemic academic situations. Therefore, my focus in this study is to investigate how teachers can use fiction and non-fiction texts as a tool to teach climate change education at university level, what are their potential methods and to analyze its over-all benefits on students. Setting up within the context of climate change teaching in Canada and Bangladesh, my MRP explores the following three questions:

- (i) What are the key features of university-based climate change education?
- (ii) How can universities more effectively reach out and connect with local communities regarding climate change related initiatives and what are the benefits?
- (iii) What are the particular advantages of teaching English literature with a climate change focus?

This topic not only promotes student learning in academic sector, but also contributes to the overall development of the individual, helping to cultivate analytical thinking, action-based activities and active communication skills in diverse learning opportunities with peers and locals. It also motivates youngsters to find a deeper sense of environmental care and their connotations within a community. To structure this endeavor, I have interviewed two academic professors from Khulna University, Bangladesh and two academic professors from York University, Canada.

### 1.3 Overview of Chapters

This MRP is anticipated to qualitatively scrutinize international attitude of teaching climate change education through the use of Arts and Humanities texts. Chapter 2 provides



a review of relevant literature related to the present context of Bangladesh, especially the southern part of the country and teaching approaches. Chapter 3 describes the research methodology, including an overview of participants, ethical review procedures, timeline for the research, interview questions and analysis procedures. Chapter 4 illustrates the academic introduction of the selected professors of Khulna University and York University and description of their relevance for the interview. A thematic analysis of the interview data along with quotations will be discussed in Chapter 5. Comparative analysis with key themes will be highlighted in this section. Finally, Chapter 6 will provide the main conclusions, the answers of the research questions, limitations of the project and recommendations for further research along with my final words.

In short, I would conclude that this Major Research Project is intended to investigate and analyze the all-encompassing effects of studying climate change education through fiction and non-fiction texts. It also intends to dive into the international similarities and differences of using English literature texts and different teaching methods between Canadian and Bangladeshi teaching standard.

## Chapter 2: Literature Review

### 2.0 Introduction:

Climate crisis is increasing in a rapid speed beyond the capacity of human beings' control. Climate change is already having a negative impact on the lives of people around the world. Failure to act urgently will reverse development gains for the most vulnerable in every society. Bangladesh, the country I was born and brought up faces climate crisis every year. According to my observation, most of the educational institutes of South Asian countries like Bangladesh are not doing enough to teach climate change education to the students. The way climate change information on media is telecasted in Bangladesh confuses the students regarding their own land.

Hugh Brammer's (2016) article points out that the information regarding climate change in Bangladesh is flawed in many ways. So, academic institutions need to reform their educational system for a better change in environmental justice. This highlights Bangladesh as one of the most vulnerable countries for climate crisis and the pressing need for climate education in PSE system. Moreover, climate change is undoubtedly a universal warning and in this year's experiences with Covid-19 pandemic, we have seen the emerging 'collapsology' (Servigne, Stevens & Brown, 2020) that is taking place around the globe. This climate change impacted the coastal countries more compared to inland regions and Bangladesh is not an exception, especially in the southern-west part of the country.

I was born in this country knowing its green agricultural pastures and series of rivers and beaches. From a very early age, I was trained to be an ambassador of climate

change education and environmental sustainability prospects. Khulna, my birthplace, is one of the three metropolitan cities of Bangladesh and is gifted with natural greenery and water resources. It is known for the biggest mangrove forest in the world, the Sundarbans. But natives in the small sub-districts like Tripura, Khasia and so on, which are surrounded by numerous river resources, claim that climate change has impacted their lives adversely and government aid is too minimal for the recovery process (Ahmed and Haq, 2017). So, from my school life, I was always taught to preserve nature as an activist but I observed that the curriculum programs in schools on climate change education was not effective enough to meet up the speed and urgency.

My childhood school, Government Coronation Girls' High School, located in Khulna city, made a long lasting impression on my learning experiences in nature preservation. This ultimately integrated into my own teaching pedagogy. The school used to provide study tours every year and used to teach optional subjects like- farming, agriculture, environmental sustainability education, bird conservation education, fish conservation education and so on. There was one teacher who used to take the students to parks and zoos and inspired us to become future environmental sustainability ambassadors. She informed her students that in 1960s, 'Grow More Food Campaign' allowed farmers to increase the use of fertilizers to increase food supply and this caused fatal damage to the natural soil erosion (Rahman and Zhang, 2018). So, students need to campaign against it and ask the policy makers for shifting the broadcasting of using excessive inorganic fertilizers in future agriculture.

When I got admitted to York University, I took ESD courses and finally realized how important these courses are for students, especially students coming from nations that

are more prone to natural vulnerabilities. As I have a background in literature and linguistics, I feel that texts of Arts and Humanities can be used as an inter-disciplinary approach to teach climate change education. Most of the settings and themes in the texts of Arts and Humanities depict natural landscapes and climatic changes, which I think can be incorporated with various teaching methods to teach climate change in South-Asian universities.

### 2.1 Why Teach Climate Change Education in Bangladesh?

Bangladesh, officially known as the 'People's Republic of Bangladesh' and the country of rivers, is a nature-blessed country in South Asia. Like many tropical countries, Bangladesh faces climate change crisis every year and the necessity of teaching the youth regarding this has become unavoidable with the passage of time. I was born and brought-up in this country knowing its green agricultural pastures and series of rivers and beaches from my early school life. Therefore, from an early age, I was taught to be an ambassador of climate change education. When I was in university for my undergraduate studies, I felt the necessity of knowing more about this subject along with the core subject: English Literature and Language. Since then, I realized that climate change education could be creatively taught through Arts and Humanities like English Literature. I wish to broaden climate change education beyond the focus of science only to make climate change education subject more interesting and acceptable to diverse students. In a natural calamity prone country like Bangladesh, such an approach will be a great boost for the youth to step forward academically as future eco-ambassadors.

Joydeb Garai (2016) conducted a study using quantitative method with semi-structured interview questionnaire for data collection in purposive manner. According to his study, the impacts of climate change on agricultural productivities, food securities and institutions challenges the coastal people of Bangladesh in the face. It finds that the frequency and severity of natural disasters have increased in recent years threatening food securities by inundating low agriculture land, restricting economic activities, decreasing employment opportunities, expanding different health diseases, destructing houses, crops and other infrastructures in Bangladesh. The women, children, elderly and disabled people cannot easily cope with the unfavorable environment during disasters and are marked as the most vulnerable victims of climate change. Not much empirical research has been done about the impacts of climate change, so policy makers seek more comprehensive view about this concern and wants to implement policy for the survival of coastal people (Alam & Amin, 2014, part 2, chapter 11, p. 151).

Therefore, it has been a major necessity to educate the present generation about environmental sustainability development ethics, especially in countries that have less access to such education pathways. Like many other Asian countries, Bangladesh lacks the immediate concern and speed to wrestle with the hostile influences of climate catastrophe through action-based practices. For example, during 2020 Corona virus pandemic, the developed countries issued lock-down policy and asked for 15 days of quarantine. Bangladesh government also issued a similar procedure, whereas Bangladeshi citizens hardly understood pandemic lock-downs and quarantine process. Those who were outside Bangladesh visited the country and the spread of the virus increased. This made me realize how important it is to teach the students of Bangladesh regarding sustainability education

and climate change to create a positive impact. Not only that, I was more worried about the natural resource preservation techniques my birthplace Bangladesh is undertaking for a sustainable future. My experiences as an international student and a teacher makes me feel responsible to research on such a matter, such that they can bring a positive change in the life of the people of my community.

In 2019, researchers like Kumar and Hasan surveyed 381 farmers including ten focus group discussions (FGDs). They collected data from ten coastal sub-districts in order to know how knowledgeable the farmers are in Bangladesh regarding global warming and climate change education. The report shows that farmers in the FGDs almost perfectly detected this climatic transition. However, individual farmers had a knowledge gap of understanding the trends of winter temperature and rainfall. Among the 381 sampled farmers, only 30% had accurate Cluster analysis. This investigation revealed that farmers in the western coastal areas had better perceptions of climate change than those in the eastern parts. (Kumar and Hasan, 2019; p. 9)

Moreover, in 2007, Bangladesh was hit by the cyclone *Sidr* and it created a massive havoc in the coastal parts of Khulna district. The cyclone *Sidr* that hit Bangladesh on 15th of November 2007-caused about 3,406 deaths and over 55,000 people sustained physical injuries. Heavy rain accompanying cyclones and tidal waves due to wind effect caused extensive physical destruction, casualties, damage of crops and livestock, and flooding in a total of thirty districts across the South Western coastal district of Bangladesh. Cyclone *Sidr* affected nine districts of Bangladesh. The most devastated districts were Bagerghat, Barguna, Patuakhali, and Pirojpur (Kabir et al, 2011).

After *Sidr*, another cyclone took place called *Aila* hitting the southern coastline of

Bangladesh on 25th of May 2009. It was the biggest storm that hit the Sundarbans within the last three decades. Satkhira and Khulna, districts of Bangladesh, suffered the heaviest damages. There had been an outbreak of diarrhea causing acute scarcity of drinking water. Although, no official data were available on such issues in media.

As Brammer (2016) points out in his article, the media fails to capture the accuracy of information and the scarcity of resources keep the people of Bangladesh ignorant toward their own position between the climate crisis. It also raises the question how well the students of Bangladesh know their own country's climate change and how they can be involved in action-based education. Such inclination taught me the importance of nature and climate change education through self-exploration and practical initiatives. Gradually in higher academics, the setting of action-based observatory education changed toward technology based classroom education. My under-graduate experience in English Literature and Language from Khulna University made me realize that education in universities is more aimed at professional excellence in future rather than climate sustainability actions. When I started teaching at North South University, I realized from a teacher's perspective the fact that how important it is to educate students regarding climate awareness.

Based on my online research, I was unnerved to know that "living in the geographical conditions of Bangladesh expose children to a higher risk of drowning" (Gupta et al, 2019). Therefore, WHO has launched four community-based interventions under UN's Sustainability Development Goal 3 and in 2016, Bangladesh CIPRB developed the Project BHASA: Anchal and SwimSafe (Gupta et al, 2019). There are 400 Anchal centers under the program across all three intervention sub-districts of Barisal which is located closely to Khulna and the SwimSafe program has 21-step swimming course. I

realized that academic curriculums, especially in universities, must undertake such initiatives as a part of their optional courses to teach sustainability in coastal cities.

Moreover, the metropolitan port-city Khulna is the main sector of fish industries. Being located closely to Padma river, Hilsha fish, known as the silver of the south, is facing severe threat since 2003 because of overfishing, pollution, disruption of migration root and climate change (Mozumder et al, 2019). The government is restricting the catching of Hilsha but the locals are not fully aware of the consequences that they are at the brink of being climate refugees. I truly feel that all these information must be incorporated in the curriculum of universities to make students aware of their own land and its conditions.

## 2.2 Bangladesh and its Water Resources

In Bangladesh, the Ganges delta is formed by the confluence of the Ganges, Brahmaputra and Meghna rivers and their respective tributaries. The Ganges connect with the Jamuna and later joins the Meghna, finally flowing into the Bay of Bengal. Bangladesh is called the "Land of Rivers"; as it is the home to over 57 transboundary rivers. However, this makes the resolution of water issues politically complicated, in most cases, as the country is a lower riparian state to India. The country is divided into three regions. The fertile Ganges Delta, the largest river delta in the world dominating most of the country. The Madhupur and the Barind plateaus form the northwest and central parts of the country. The northeast and southeast are home to evergreen hill ranges. Bangladesh is predominantly rich fertile flat land. Most of it is less than 12 m (39 ft) above sea level, and it is estimated that about 10% of its land would be flooded if the sea level were to rise annually. Forests cover 17% of the country and 12% is covered by hill systems. The



country's wetlands are of important significance to global environmental science. This shows the significance that university students of Bangladesh of all departments must learn climate change education and sustainability topics to preserve their own land and to take measures when necessary. In fact, similar geographical settings are seen in other countries too. So, it is a global demand that every university student must learn climate change education to protect their own motherland. Even, common citizens must learn this topic as well and share their views of protecting the mother earth.

### 2.3 Bangladesh and its Climate

Bangladesh is blessed with diverse tropical climates. The climate of Bangladesh includes a mild winter from October to March, and a hot, humid summer from March to June. A warm and humid monsoon season lasts from June to October and supplies most of the country's rainfall. Natural calamities, for example floods, tropical cyclones, tornadoes, and tidal bores occur almost every year, combined with the effects of deforestation, soil degradation and erosion. The cyclones of 1970 and 1991 were particularly devastating. Moreover, Bangladesh is also one of the most populous countries in the world. Dhaka, the capital and largest city, is the nation's economic, political, and cultural hub having the maximum industries and causing maximum pollutions. Another metropolitan city Chittagong, that has the largest seaport and hill-tracks, is the second-largest city. Khulna is the third-largest city having the 2<sup>nd</sup> commercial seaport in Mongla and having the Sundarbans, known as the land of royal Bengal tigers and mangrove forest. Bangladesh forms the larger and eastern part of the Bengal region. The drastic change in the climate and man-made pollutions effect the greenery of the hills, forests and animal habitat of the

cities. In order to eradicate the damages, the teaching of climate change education becomes more necessary at tertiary level for the new generation of students.

#### 2.4 Bangladesh and Floods

In September 1998, Bangladesh saw the most devastating flood in modern world history. As the Brahmaputra, the Ganges and Meghna spilt over and swallowed 300,000 houses and 30 million more were made homeless. Effectively, two-thirds of the country was underwater. The severity of the flooding was attributed to unusually high monsoon rains and the shedding of equally large amounts of melt water from the Himalayas, and the widespread cutting down of trees for firewood or animal husbandry. A similar countrywide flood took place in 2007, which left five million people displaced. So, it can be estimated that Bangladesh is recognized to be one of the countries most vulnerable to climate change. Over the course of a century, 508 cyclones have affected the Bay of Bengal region, 17% of which are believed to have caused landfall in Bangladesh. Natural hazards that come from increased rainfall, rising sea levels, and tropical cyclones are projected to increase as the climate changes, each seriously affecting agriculture, water and food consumption, human health, and shelter.

#### 2.5 Bangladesh and Weather Broadcasting

Renowned scholar Hugh Brammer (2016) published an article pointing out that the reports regarding climate change in Bangladesh is faulty. He also said that the academic institutions need to reshape their education system for a better change in the environmental justice to aware its future audiences. Brammer's observation could not be ignored as he has spent over 20 years in Bangladesh and had been the former East Pakistan officer working

on soil surveys and agricultural development, wrote several books on the country's environment, natural disasters and land use. He explored 50 years of the country's rainfall and temperature data in order to assess the evidence for climate change related to global warming:

The prevalent errors and misunderstandings about Bangladesh's physical environments and climate reviewed in earlier sections indicate an urgent particular need to make changes in the teaching of geography and related environmental subjects in the country's academic institutions, substituting field studies for 'paper' studies so that students, at all levels, obtain a practical knowledge and understanding of the physical, economic and social geography of their country. That would enable them to replace popular assumptions and assertions with fact-based information and understanding. (Brammer, 2016; p. 32)

When I was in school, I was taught similar topics in geography classes and I was told that by 2050, a 3 feet rise in sea levels will inundate some 20% of the land and displace more than 30 million people. Later, it was heard that to address the sea level rise threat in Bangladesh, the Bangladesh Delta Plan 2100 has been launched. Since then, the tension was dwelling in my mind regarding what students can do or must do about it. In my school and university life, I have been told about the problems but the solutions were not as frequently been discussed and this worried me a lot.

Therefore, I believe that universities need to incorporate such a method in their curriculums that could direct climate change education and sustainability topics to the university students. It is a fact that climate change issues can not be solved through university teachings only. Although, university teachers could play a big role by teaching the youth to be responsible enough to give climate crisis its prerequisite attentions through academic researches and experiential actions.

## 2.6 The Importance of climate change education and role of Canadian universities

Education for Climate Change has become part of the UN's program of education for Sustainability Development (ESD). It was first explained in Agenda 21 at the Earth Summit (1992) in Rio de Janeiro and it focuses mainly on educating professionals and future activists on sustainability and climate change issues. Since then, many universities have signed the Talloires Declaration that puts importance on climate change education courses in university teachings and researches (Hoque, Clarke and Sultana, 2017) and it came into the spotlight becoming one of the most crucial courses to be taught in every institute of every country. Because of the over-all climate change and environmental imbalance, every citizen of the world, whether young or old, must know the various ways of protecting the nature. As today's students are the future leaders of tomorrow, it is mandatory to teach them not only climate sustainability ideas but also appropriate pedagogies that can enhance student learning. With the rapid increase of technology and industrialization, it has become mandatory to learn the ways of a sustainable life-style. Many world organizations are highly promoting to take such courses as a mandatory requirement for all. Even every subject can include it as an extra course for credit completion putting into a multi-disciplinary approach:

ESD and climate change education for all college students is advocated by many scholars who believe that every discipline can contribute to this initiative from the current repertoires of lesson plans and curriculum units. (Mintz and Tal, 2018; p. 127).

These courses guide and educate students for improved life-styles, recycle and waste management systems, plant-based dietaries, animal rights, deep ecology, biodiversity, disaster risk reductions, poverty reduction, sustainable consumptions, population control and so on. Researches have shown that many academics tend to focus

mostly on academic excellence for a professional empowerment rather than creating climate activists for the future.

This has to be reversed because for climate change education, higher skill knowledge and critical thinking ability have to coordinate with each other. On the other hand, many of the climate change education amplifies knowledge and initiates students to put it into action but the urge of doing so has to be more pressing. It has been generally noticed that countries that focus on climate change education in their academic curriculas are able to procure greener neighbourhood, action-based research, better medical treatments, public awareness, personal hygiene and sustainable future for their society compared to that of the countries that pays less attention to such concepts.

Nowadays, many countries have ESD and climate change courses for students related to action based assignments and practical projects and Canadian universities are playing a huge role promoting such notions. For example - in Canada, we find York University offering EDUC 5446: Ecology, Ethics and Education, ENVS 5164: Environmental Economics, ENVS 6118: Applied Ecology, ENVS 6114: Sustainable Development for Canada; University of Toronto offers 6 certificates: 3771-Climate Change, 3454-Introduction to GIS for Environmental Management, 3455- Advanced GIS for Environmental Management, 3457- Environmental Remote Sensing, 3566- Fundamentals of Environmental Management and 3568- Strategies in Environmental Management; UBC offers B.A. in Environmental and Sustainability Programs with four courses in a four year undergraduate structure. Additionally, other universities in Quebec and British Colombia provide numerous courses in its under-graduate and graduate format related to the topics of Earth Systems and Climate Science, Engineering for Sustainability,

Environmental Governance, Environmental History and Culture. Like many other North American territories, Canada is stepping forward with rampant pace for climate change education assessments and related researches to ensure a progressive future for the upcoming generation compared to that of Asian continents who are still struggling to figure out ways of dealing with environmental catastrophes.

### 2.7 Climate Change Education in a University of Bangladesh

According to my online journal research, I have found that very few research on climate change education and sustainability development subjects in Bangladesh has been originated compared to that of North American and European countries. The campus sustainability assessment framework which the North American universities follow is hardly activated in many Asian universities, especially in Bangladesh. This raises the question that what are the barriers to implementing environmental practices in Bangladeshi universities?

Several studies have indicated that post-secondary education has only a limited contribution to a change in graduate's knowledge and attitudes related to environmental and sustainability issues...It was also argued that most tertiary education students have only a limited exposure to ESD. (Mintz and Tal, 2018)

On the contrary, I would like to highlight that Khulna University has a separate discipline of Environmental Science that focuses on various sustainability concepts: Aquatic Biodiversity, Climate Change, Livelihood vulnerability, environmental ethics, waste management, and so on. The department has 21 faculties with 5 laboratories, a seminar library and a conference room. Compared to the wealthy industrial carbon producing nations, the curriculums and thesis of this department are very limited but still it carries optimism that if appropriate strategies and resources are provided, it can take a

better shape. Students who submit their thesis to the department does that to meet the requirement of the completion of the graduation but its practical implications are very limited. Their maximum efforts are theoretically focused and their awareness and vigor to put it into a practical form is less. If their researches were put into actions, the Khulna city would have been more greener and eco-friendly.

Additionally, more than four thousand students graduate from Khulna University per year. Among them, maximum 50 students graduate from Environmental Science and the rest from other subjects. When I was an undergraduate student at Khulna University, I saw students throwing tiffin bags on university pathways and wasting food and drinking water. I also saw students not recycling used papers, neither they are at all concerned about any of the climatic changes taking place around them. This highlights that students are not aware of sustainability concepts and they need to be educated on this issue. Climate change education and Environmental Sustainability concepts are easily accessible and comprehensible that any student of any discipline can incorporate. So, if other disciplines promote it, students can learn the etiquettes of respecting their own motherland and stimulate environmentally sustainable future.

### 2.8 Probable Initiatives of Climate Change Education for Bangladesh

Climate Change and Environmental sustainability education is one of the most popular courses in numerous universities. Many universities undertake frameworks that support such insights. For example, in Australia, University of Melbourne, the SEAD framework approaches 3 key components to be applied:

Environmental sustainability education through instrumental knowledge, practical knowledge and emancipatory knowledge, academic development through learning and teaching/instructional knowledge, pedagogical knowledge, curricular knowledge; and organizational change. (Holdsworth and Thomas, 2015)

But the question is does other countries like Bangladesh follows the steps of countries like Australia and Canada? Bangladesh is located in South Asia at 23.8 degree North and 90.3 degree East. Agriculture is one of its most reliable sources of income for farmers. As an over populated country like Bangladesh, the government is broadcasting to increase the use of fertilizer to maximize the supply of food but “the doubling of agricultural food production worldwide up to the 1990s can be partly attributed to a 6.9-fold increase in nitrogen (N) fertilizer and a 3.5-fold increase in phosphorous (P) fertilizer” (Rahman and Zhang, 2018). The demand of food is a global phenomena but how effectively countries are dealing with it is a matter of consideration as farmers of most countries use high level of sodium and potassium containing fertilizers without any training session. The excess use of it not only makes the soil poisonous by decreasing the soil pH but also causes harm to the over-all biosphere. Contrastingly, many countries are using fertilizers efficiently through fertilizer management technologies and education on crop management knowledge models, fertilizer models, leaf color charts (LCC) and soil-plant analysis development that are given as mandatory or optional courses in private coachings and universities.

Research shows that young farmers who have no education or training apply large amounts of inorganic manure. Whereas, middle-aged male farmers who have at least minimum training contribute towards the reduction in inorganic fertilizer and this shows the importance of agricultural training courses. As we know that climate change creates an impact on agricultural productions, such training can aware farmers regarding climate change issues and sustainability measures.



On the other hand, if we evaluate a city based on its most obligatory education requirement, we will find that climate change education is one of the most necessary education for Bangladesh because of its geographical location and its dependency on environmental resources. Khulna is a coastal city surrounded by Padma, Megna and Brahmaputra, the three major river routes that surround the city. It has the biggest port in Mongla that adds foreign profits to the economy through import and export of goods. This makes the city vulnerable in case of water related calamities and therefore, climate change education is more necessary for this city. The BHASA and SwimSafe programs should be included as courses in the universities and teachers must take initiatives to make these courses a part of the curriculum. Another natural resource of the city are the fisheries. It is one of the primary industries that support local livelihood, food security and human health even if it is carried out in small scale. It single handedly contributes a big deal to the national economy and provides employment to millions of Bangladeshis. Despite this, the sustainability of the fishery resources is a growing concern:

As the single most important fishery, the Hilsha catch alone constitutes approximately 12% (0.5 million tons) of the total fish production of 4.134 million metric tons as of 2016-2017. Fisheries have a total annual value of US\$ 2 billion, thus accounting for more than 1% of Bangladesh's GDP and employing approximately 0.5 million fishers and 2.5 million people in the value chain. (Mozumder et al, 2019).

As Khulna city is surrounded by Padma River, catching Hilsha is a popular activity for villagers in coastal villages. Besides Hilsha, many white fish hatcheries provide a good source of income to the locals especially in the Koyra area, which is located very close to the Sundarbans. Many villages constitute this small-scale fish industry by cultivating rui, pabda, moladhela, magur and many other local fishes. This makes it necessary to teach the various ways of fish breeding and hatchery production that take place in most of the areas

near Khulna city. Universities in Khulna city have separate departments of fishery that teach the ways of fish cultivation. Such knowledge is confined to those students who are admitted to that curriculum. Therefore, it is suggestive to provide one or two courses related to this subject available for all students of different departments.

### 2.9 Inter-Disciplinary Approach and Teaching Climate Change Education

In universities, Arts and Humanities departments can use fictional and non-fictional texts as their referential tool to discuss climate change topics. Moreover, different other departments can add a small-scale course of 3 credits related to environmental sustainability education as a part of their under-graduate curriculum. This will not only serve the purpose to educate university students regarding the global climate change but also inspire them to protect the city they are living:

The UN Decade on Education for Sustainable Development (UNDESD) has emphasized the need for a commitment by educational institutions to educate all students about the necessity of sustainability around the globe. (Hoque, Clarke and Sultana, 2017)

Therefore, every department of any university around the globe can put an effort to make climate change education a part and parcel of their own curriculum. For example, Khulna University's department of English literature and language can easily use literary materials to incorporate the teaching of climate change. In its under-graduate curriculum design, there are 8 semesters in four years timeline and the requirement of credit completion is 145. In this period, students complete 48 courses in which 5 are optional courses and 13 are sessional courses. Optional courses are required to complete the credits and it can be taken from a variety of non-literary courses which can be applied in literature studies. Some of such course are - CSE, Bangla, Psychology, Philosophy and so on. Sessional courses are basically seminars where students discuss and perform literature

related topics. I think this is an excellent platform where students can relate climate change and environmental sustainability topics with the themes and images depicted in literary productions. For example- in the optional course of Bangla Literature 1, students are asked to read the poem by Jibonanada Das's 'Bonolota' (1935). The poem amalgamates nature with human emotions and psyche and tries to portray that nature and human are inseparable. The teacher can include the text *How Everything Can Collapse* (2020) by Servigne and Stevens and ask the students to make a comparative analysis between the two to illustrate the fact that we all are connected and we need to be aware of the ecological balance to avoid a future disaster.

On the other hand, the teacher may ask the students to form small groups and assign pages from the book *Tales of Two Planets* (2020) by Freeman. This book is a list of essays written by climate refugees and the teacher may ask the students what they feel about the sufferings and what initiatives can be taken to avoid such consequences in the future. The teacher can also ask to relate literary characters that resemble the suffering of the climate refugees presented in the book. For example, students can relate Shakespeare's characterization of Prospero and Caliban in *The Tempest* (1611) with the sufferings of climate refugees. There are scholars who have published research articles on similar approaches of teaching. Such as- Lannin (Et al, 2020) explains in his study how multi-modal texts of English literature can link student learning and understanding of the climate change through the depiction of the climate and environment in the literary texts. He draws examples from "Horegallu" by Sudha Murty (2006) and *Same Sun Here*, a novel by Silas House and Neela Vaswani (2012). He explains how the students can associate their understanding by answering the following questions: What is the environmental challenge

addressed in the text? How are humans and the environment affected? And what questions do you have as you think of these environmental challenges? (p.7). On the other hand, another scholar Damico (et al, 2020) approaches ways of involving students with climate justice by using stories that speaks of climate change. According to their research there are many ways to mobilize the study of such stories in the classroom. Teachers can guide students to identify specific destructive stories (e.g., the ones we identified) across a range of texts (fiction/nonfiction and print/digital) with core critical literacy questions (e.g. What story is being valued? Who benefits from this story? Who doesn't?). This might include students inquiring into destructive stories in their own lives as readers, citizens, and consumers. Where are these stories in social media? Are they in students' homes and schools? Are they in conversations among students' friends and families? What other destructive stories are evident? Exploring these stories in the classroom positions them as worthy of inquiry. Doing this type of investigative work with texts with an eco-linguistic lens promotes climate justice literacy in the classrooms.

Moreover, the researcher believes that educators can make the students understand the climate crisis and involve in problem solving discussions. He further stresses that, literacy educators are uniquely positioned to help students identify and examine ecologically destructive and beneficial stories we live by that circulate in an escalating array of complicated, motivated texts about climate change. Literacy educators can begin this work by enriching their own understandings of the climate crisis and making climate justice more central in their classrooms. (p.7)

Furthermore, I believe that the English literature classroom is an imperative platform to critically explore climate crisis issues. Scholars and teachers of today believe

that “a purely science-oriented approach to climate change can miss the social, historical, ethical, and human realities that are critical to the problem” (Sulzer, 2021, p.2). Then the question arises of how to start it when teaching canonical literature is the main target of getting good grades. Due to the rapid change in environmental settings, the present climatic situation is becoming more catastrophic. The recent pandemic is a cause and effect case of climatic change and scientific usage. Because of the lockdown, the carbon emission lowered and the ozone layer became thinner but the opening of lockdowns again creates imbalances as human beings start repeating the same mistakes again. In such unprecedented situations, an English literature classroom can contribute towards creating awareness towards the youth regarding the alarming future of natural calamities. Additionally, An inter-disciplinary approach is always useful to make learning multi-dimensional. Sulzer says,

The current pandemic requires a stance of criticality, and English educators have an indispensable role to play. Pandemics reveal the fault lines of society, which will become increasingly agitated in the future, because pandemics are interrelated with the climate crisis. (2021, p.1)

English literary texts use nature as one of its dominating settings and many literary masterpieces represent nature through the skillful dexterity of the writer. Students of literature can read and compare it with the present situation and therefore, connect themselves with the climate education. The application of such inter-disciplinary approach can be very effective and helpful. Some of the recent scholars have already applied it in case of teaching Shakespearean works to deal with post-pandemic situations:

English education cannot sit on the sidelines for the fire drill or the fire. In this moment, we need methods for critically engaging COVID-19 and the climate crisis in the English classroom. In this article, I propose one such method, offering a seven-step heuristic based on the idea of ‘juxtaposition,’ defined as putting texts

side by side to stimulate a creative leap. I use *Macbeth* to demonstrate how one of Shakespeare's most often-taught works provides a pathway for critical engagement with COVID-19 and the climate crisis. (Sulzer, 2021, p.2)

Moreover, Sulzer in his article "The Future Is Known. Now What? Using *Macbeth* to Explore the Social Complexity of the Climate Crisis and COVID-19" (2021) provides the use of juxtaposition to practice the approach and, in page 6, suggests seven heuristic ways to make this strategy work.

English Literature education in the classroom has an important role to play in providing a basis in understanding the pressing issues of today like the climate crisis, or post-pandemic situations. To do this imperative effort, educators must ordain a type of planning that clearly puts canonical works into conversation with contemporary concerns. Such approaches open more ways of learning for students and teachers and this MRP tries to focus on this. The following chapter will illustrate how such an approach is taking attention in the two selected universities of Bangladesh and Canada.

## Chapter 3: Research Methodology

### 3.0 Introduction

This research is intended to investigate and analyze the extensive effect and opportunities for climate change education through Arts and Humanities in Bangladesh and Canada through two universities and its pedagogical probabilities. It will also highlight the difference of education system in Bangladesh and Canada, comparing opportunities in Khulna University and York University in particular. For this project, fiction and non-fiction along with different teaching strategies will be treated as a pedagogical tool to teach climate change and environmental sustainability education and to evaluate the impacts on university students.

Moreover, it is universally admitted that maturity and education always play a vital role in case of sustainability actions. Many researches have also proved that a higher level of education significantly reduces the probability of pollution, over-fertilization, over-fishing, undisciplined waste management, overuse of energies and vehicle use. It also highlights the ethics of “collapsology” (Servigne and Stevens, 2020) when young adults step forward as sustainability activists and consultants. This project aimed to explore how the students of university level could achieve climate change education through fiction and non-fiction texts from Arts and Humanities teachers. Because of the Covid pandemic and the protocol of social distancing, scheduled zoom meetings were arranged to conduct the interviews with the academic professors. Four zoom interviews were organized with four academic individuals: two from Khulna University, Bangladesh and two from York university, Canada. Ten questions were asked to get their responses and their details will be given in the following chapter.

### 3.1 Timeline

This Major Research project is designed to occur through the remaining months of 2021, and reach completion of all stages by Summer 2022. Timelines are subject to change based on progression of tasks; however, will not extend past March 2022.

Task	Tentative Dates
Submit Human Participants Form and await approval from the Graduate Program In Education Human Participant Review Committee	April 2021
Conduct Research (Hold interviews)	April-May-June-July 2021
Complete MRP for approval of Supervisor	December 2021
MRP evaluation by Second Reader	January 2022
Evaluation of MRP at Summative Discussion Meeting	February 2022
Supervisor submits the final Research Project Discussion Report to the Graduate Program Office and copy to student; student submits electronic approved copy to Graduate Office	March 2022

### 3.2 Methods

For this research, I have chosen qualitative research method with interviews. An auto-ethnographic touch is also present in the research as I have mentioned my personal experience as a student and self-reflection as a teacher on discussion topics. Data have been collected through semi-structured zoom interviews of 30-60 minutes each from four



participants from university academic backgrounds and my auto-biographical observation as a student.

I have chosen semi structured interviews because they allow participants to freely express their philosophies within a certain array in order to acquire undeviating information and auto-biographical stories serve the purpose to explore and connect to wider cultural and social understandings. During the interview, interview questions will be customized in time according to the planned interview outline and interviewees' answers. The interview started with two major topics: Climate Change Education and English Literature. Under each topic, there were guided questions and sub-topics. The first set of interview was recorded and reviewed and transcribed. The second set of interview will be done similarly if further clarification is needed in certain questions.

In order to choose the four interviewees from two different countries, Bangladesh and Canada, I hope to gain a deeper scope of international approaches to climate change education through Arts and Humanities teachings. It is important to emphasize that this Project was intended not to generalize one appropriate way of teaching, but the goal was to achieve a deeper sense of how important it is to teach climate change education in PSE and how other subjects such as English Literature can be useful. What mattered more was how it was executed, and what qualitative similarities and dissimilarities resulted from the data analysis.

One set of written consent was taken before the interview as a written declaration of conscious participation into the research knowing the purpose clearly. It was also admitted orally during the interview that the researcher and the participants will mutually respect each others' cultural, professional and religious backgrounds. The set of interview

questions were sent through email to the participants beforehand and were asked for a zoom meeting at their conveniences. The second set of interview was an open option if further clarification was needed in certain questions.

### 3.3 Interview questions

I made ten open-ended interview questions to explore the subject area and the participants' personal experiences. The questions were given to them beforehand (at least 2 weeks) so that they could prepare their responses. As I am interested in better understanding what the Arts and Humanities (in particular) might offer in climate change education, I have interviewed 4 professors from two universities with an interest in exploring ways of teaching climate change. With these notions in mind, I gave them the following series of open-ended questions in a semi-structured interview:

1. Can you talk about your climate change teaching at your University? What are your goals? What guides and informs your approaches? What themes do you explore? What texts do you draw on? What activities do you engage students in? Do you have particular favorite activities? What assignments do the students do?
2. Can you talk about the history of your courses? Such as how long have they been running? What have been enrolments? How do students react? What are your plans for the future?
3. Given the magnitude and significance of the climate crisis, in comparison, course development in universities (and the humanities in particular) has been seemingly slow (Martinez, 2017). Is this your experience? Why do you think this is the case? What changes are necessary at the institutional and department levels to support change? How can universities better support climate change education in your opinion?

4. How can universities more effectively reach out and connect with local communities in climate change related initiatives?
5. The numbers of climate refugees are dramatically increasing. How can universities better respond to this humanitarian and ecological crisis (especially from your department)?
6. Are there any lessons that can be drawn for change education from the COVID-19 pandemic? Bruno Latour describes the pandemic as a “warm up” (Watts, 2020)? In what senses is this warm-up? How the curriculum of your department could respond to it?
7. Do you think an inter-disciplinary approach can be useful in teaching climate change education in PSE? If yes, could you explain why and how? How would you relate humanities education with climate change education?
8. How curriculums of your university could add climate change education courses more effectively and teach the importance of environmental sustainability through humanities courses?
9. What are the pedagogical strategies that can be applied and how much effective they could be in your context of teaching? Would you prefer open debates, workshops and seminars or traditional written studies for it? How and why? Would you suggest interviewing climate refugees live for open discussion sessions and associate their stories with stories of humanities syllabus?
10. If we use humanities curriculum and relate it with the depiction of nature’s setting and ask the students to associate their climate change education with it, do you think it may be useful? Please explain.

These questions were worth much consideration as they offer variety of assistances to the teachers for further research and could open more opportunities for academic

practices. Such research could provide the professors and the students more opportunities to critically think of the environmental sustainability opportunism, climate change education through other subjects, acknowledgment of land and their individual contribution in the society.

### 3.4 Data Analysis

The data from the four interviews were analyzed through thematic content analysis from a qualitative point of view. Transcription of each of the interviews permitted me to highlight similarities and differences between the participant's responses. I have used the online transcription tool installed in my iPhone called *Temi*. Additionally, the Zoom interviews were recorded through Zoom recording and QuickTime Player in my laptop. As a result, the themes that appeared during the analysis and my experiences as a student are discussed in details in the later chapters.

### 3.5 Ethical Review Procedures

For the requirements of this Project to be approved from the Delegated Ethics Review Committee, a completed Major Research Project Proposal package was submitted in April 2021, which included the following:

- MRP Proposal,
- MRP Protocol Form (Research Involving Human Participants),
- Completed Informed Consent Forms
- Proof of completion of the TCPS 2 Tutorial (Course on Research Ethics, CORE).

In addition to being considered successful, a review of York University's "Senate

Policy Research Involving Human Participants” was obligatory, along with a review of the “Student Researcher Responsibility Document” located on the York University website. The Delegated Ethics Review Committee issued the commencement of this research Project in May 21<sup>st</sup>, 2021 and was informed to me through email with no attachment form/list of any sort of minor/major changes. The approval signified that this MRP would discuss and address the four participants with respect to their professional and cultural propensities to explore climate change education through Arts and Humanities texts and different teaching strategies in two different universities of two different countries. Pseudonyms will be used in place of the real names of the participants in data analysis section to maintain their anonymity. These practices were in line with ethical submissions.

## Chapter 4: University professors

### 4.0 Introduction

In order to choose the interviewees, I kept that in mind that they need to belong to the relevant subject area and must have experiences in academic sectors. So, two academic professors from Arts and Humanities, especially of English Literature, from Khulna University and two academic professors of Social Science and Education from York University were chosen to be interviewed for this project. All the interviewees were my course professors except one. At first, I emailed them and asked them to be a participant for the Zoom interview session for 30-60 minutes. Once they agreed through email, I wrote their names in my research proposal and consent letter and sent it to the Ethics' committee for approval. Once the proposal was granted, I emailed them back regarding the interview questions.

In order to create mutual trust and friendly rapport with the interviewees, a pre-lesson conversation was arranged by zoom and email. There, I clearly stated the purpose of my research, my background and the probable risks and benefits of the data collection methods. It was clearly communicated that the purpose of my research is not to judge professional dexterities or knowledge depths. My aim was to figure out probabilities of progressive learning options of climate change education through fiction and non-fiction texts and their different ways of teaching. I also clarified that I will make a comparative analysis of their teaching strategies. When the participants agreed, then another communication was held to explain the research. It was also clearly stated that if any selected participant does not want to participate in any stage of the interview, his/her decision would be respected in a formal manner without any further impetus.

While collecting data, a culturally appropriate attitude was taken to ensure that there were no ethical concerns regarding this study. All of them agreed through a formal email to attend the Zoom interview sessions and therefore, the interviews were conducted along with their written consent to conduct the interview with recordings and using their words as a source of information for the project. I have used pseudonyms instead of the real names of the professors in the project's data analysis section. The followings are the professional identity of the selected interviewees:

#### 4.1 Interviewees from Bangladesh

For the interviews from a large university in Bangladesh, I interviewed two academic representatives from the school of Arts and Humanities, department of English

1. My 1<sup>st</sup> interviewee (under the pseudonym Donna) is a professor from the Department of English from a prominent university in Khulna, Bangladesh

She is a former Dean (2016-2018) and former head (2015-2016) of the department of English Language and Literature. She has done her MPhil and PhD from Oslo University, Norway and her MA from Dhaka University. She is one of the leading individuals in case of curriculum design of her department. Her research interests are in women's writing, refugee and migration studies, post-colonial and translation studies, metaphysical poetry, modern drama and Henrik Ibsen works and environmental literature. She has published more than 20 research articles and books. I explained to her regarding my research and she was very enthusiastic about it. She was one of my teachers. She taught me Shakespearean drama and Metaphysical poetry. When she used to take classes, she always tried to explain the ecological effect on the human mind and also highlighted how human beings can control the environment surrounding them. She has relevant educational

qualifications and teaching experiences from both national and international academic sectors and therefore, I thought she could relate to the subject matter of this project very well. She is mentioned under the pseudonym Donna in the project's thematic analysis. She gave the interview on 02/07.2021 on Zoom for 38 minutes and was very enthusiastic.

2. My 2<sup>nd</sup> interviewee (under the pseudonym Harvey) is a professor from the Department of English from a prominent university in Khulna , Bangladesh

He is a former head and he has completed his PhD from Islamic University, Kushtia, Bangladesh in English Literature. His research interest includes feminism, orientalism, secularism and ecology in English Literature. He published many research journals in renowned publishing organizations. He is a member of different NGOs and environmental sustainability organizations in Khulna district. He is a prominent figure in the curriculum design of his department and he promotes Environmental Literature as a topic of discussion in his sessional classes. During my honors life, he was one of my course teachers and he used to hold a lot of sessional classes to promote experiential learning. Sessional classes are actually seminar classes where the students speak out of their experiences of learning. We used to participate in debates, extempore speech, dramatic performances and open discussions. It was a platform where we used to bring our thoughts regarding various themes of literature and associate it with our daily lives. I could remember that during his teaching of T. S. Eliot's *The Waste Land (1922)*, he briefly associated the post-modern society's environmental crisis and suggested active and progressive human actions to solve the ecological problems in the class discussion. He is mentioned under the pseudonym Harvey in the project. He gave the interview on 04/06/2021 for 43 minutes and 53 seconds.



## 4.2 Interviewees from Canada

1. My 3<sup>rd</sup> interviewee (under the pseudonym Robert) is a professor from the Department of Education from a prominent university in Toronto, Canada.

He did his Ph.D. in the Sociology of Education and his current research interests include: the social and political organization of knowledge; environmental and sustainability education; global migration and settlement; university/community relations and teacher education. He has a keen interest in learning the sustainability approaches in developing countries and is enthusiastic to undertake related researches. He was one of my course teachers for winter term and I had taken a course under him where he introduced two texts based on climate crisis: Freeman's *Tales of Two Planets (2020)* and Servigne & Raphael's (2020) and *How Everything Can Collapse (2020)*. He agreed through email for a formal Zoom video interview of 30 minutes for my research. He gave his interview on 30/06/2021 for 36 minutes 46 seconds and was very excited. He is mentioned in the project under the pseudonym Robert.

2. My 4<sup>th</sup> interviewee (under the pseudonym Alex) is a professor from the Department of Social Science from a prominent university of Toronto, Canada.

His research and teaching interests include global tourism, environmental communication, climate change education and media representations of social movements. His research has been published in *Journalism*, *Journal of Science Communication*, *Noricum Review*, *Tourist Studies*, *International Communication Gazette*, *International Journal of Cultural Studies*, *Canadian Journal of Communication* and in several edited volumes. I have not done any course with him but according to the suggestion of my

supervisor, I have seen his course outline and I was impressed to know that he could be a good source of information for the project. I would like to highlight some key facts and impressions from his course outline:

In one of his courses, he organized four learning modules, each taking up distinct elements of the representation of climate change. The first module, “Representing Climate Change,” introduces the concept of climate change, why it matters, and the efforts science communicators have made to raise public awareness of the issues. The second module, “Climate Change and Everyday Life,” studies how climate change intersects with lived experiences both nationally and internationally. The third module, “Media, Culture and Climate Change,” gives close scrutiny to the ways in which climate change is represented by science communicators, journalists, policymakers, climate deniers, tourism promoters, environmental NGOs and activists among others. In the final module, “Imagining Climate Change Futures,” students watch a blockbuster Hollywood climate disaster movie and read a fiction on climate crisis. He agreed through email for a formal Zoom video interview of 30-60 minutes for my research. He gave the interview on 06/07/2021 for an hour, 7 minutes and 36 seconds. He is mentioned in the study under the pseudonym Alex.

## Chapter 5: Thematic Analysis

### 5.0 Introduction

This chapter offers an overview of the four themes that emerged from data analysis. The first theme is place-based learning. The other three themes are: environmental landscapes, institutional structures and, compassion and empathy. All the professors have their unique ways of teaching that will be discussed along with their opinions. The discussion of each theme ends with a comparison between the professors and their pedagogical ways.

### 5.1 Theme one: Place Based Learning

The importance of place-based learning (interpreted broadly as encompassing experiential and community-based learning) was a theme that emerged across the interviews. During our interview, Robert spoke about the significance of outdoor learning experiences in environmental education. He said he used to take his students to the campus to experience learning outside the classroom. In this respect, his pedagogy values the university campus and outdoors as an experience conducive to learning and reflection. He continued by highlighting experiential learning as an engrossed learning method through which students learn by doing things by themselves and by reflecting on the experiences. He believed that such a learning procedure provides ample opportunities for students. He used to take his students to the campus arena and sit under a tree or open space. Then he asked them questions regarding their observations on environment and human connection with them. He believed this could provide the students with immense opportunities to connect with nature saying in our interview that: “we would do these kinds of outdoor experiences and the assignments were about creating a worthwhile learning experience for

students using the out of doors.”

Alex was another strong supporter of experiential learning in the form of community based knowledge. He said when students try to relate a story of literature, which could be like their own experiences, they could relate to the situation more effectively. He called such learning as “effective experiential education”. He said it is a useful technique to “find ways to bring the community into the classroom, through the relationships that the students have and the networks they have within their community.” He also illustrated that such discussions make learning more interesting and exciting as well as give the students an opportunity to brainstorm on the issue and discuss probable solutions to it:

It's not like it's in your backyard yet. Right. But when you start to think about how those macro level changes might actually impact your backyard, ... Or some students of course are already experiencing this. And they bring that into the discussion in the classroom. And then there's this back and forth between the community that they're coming to the classroom from.

Alex also said that he ask his students to submit field research papers. In such assignments, he ask his students to go to a local organization or a community initiative in order to learn something. Students could hold interviews, take pictures, or simply create a descriptive essay regarding the association and its associates. They could also make constructive criticism on the work ethics or provide suggestive measures. He also suggested that nature oriented activities like -cleanup operations, farm visits and first-hand learning of taking care of animals and plants, courses and workshops on recycling and visiting local NGOs are good resources for experiential academic acts. So, he welcomed students with more open-minded community based experiential research and discussion panels on such terms but with prejudice free mentality, as he believed it is a never-ending

discourse for both students and teachers. He also promoted his students to submit documentary projects through social media like - making a tiktok video or a Facebook webpage based on their own observation of climate change. He reflected this could make learning more fun and interesting as well as help students to easily associate their views on climate change issues.

According to Harvey, teachers of today are taking initiatives to make students understand the real consequences of climate change and forming research panel to visit places affected by climate change in the Southern parts of Bangladesh. Through their observations, they are writing research articles and projects that portray the climate change situations in Khulna city. He says that -

some other departments like the Soil department, Forest and Wood Technology, Agro-Technology, and the Environmental Science department are sending researchers to capture the real picture of the surrounding areas of Khulna University and this will impact the whole of Bangladesh. Students will gather real close-hand experiences of witnessing the situation caused by climate change in place and mind of the victims. This will encourage them to step forward with remedies and effective survival strategies to overcome future calamities.

He also mentioned that some researchers have already taken the initiative to meet the climate refugees and collected data to research on their experiences of climate crisis and their survival tactics.

Khulna University (KU) has this initiative to connect with local communities, you know. KU is located near the coastal areas of Bay of Bengal. So, we can easily connect to them. In fact, we have selected some villages, and some educators have already been there to talk to the coastal people regarding climate change... are sending researchers to capture the real picture of the surrounding areas of KU and this will impact the whole of Bangladesh.

In case of Donna's interview, I found her as another enthusiast of outdoor experiential learning. She said that when students visit places and people, it help them to connect with the texts in a more effective way. She says:

I am sure that there will be a huge change in the mind of the interviewer when they will meet climate refugees and their stories can be linked with the stories of the interviewers' studied literature.

So, she believed that the combination of textual knowledge and practical experience could assist students to learn climate change education more successfully. Donna related it to the fact that every year Khulna city, which is located to the southern part of Bangladesh, faces natural calamities. Therefore, it became a responsibility for all academic teachers, especially university professors, to step forward with their available opportunities to teach and make students aware of climate change by allowing to visit those places. She promoted action based student initiatives where students can meet climate refugees and have conversation in the form of an interview or simple rendezvous to understand situations:

It is very hard for the local people to come to the fact that their life is changing due to climate changes. Apart from that, in villages, they do not have institutional trainings for such challenges. So, in universities, for example like ours, students can go to climate refugees and try to teach them some survival strategies and mental health therapies as well as how to do adjustments during natural calamities. They can bring examples from literature to make the ascendancy more applicable

She also suggested action-based social tasks and promoted appropriate training sections to make students real-life eco-ambassadors. She wanted to discuss deforestation and planting trees, waste recycling and food consumptions and many other action-based topics in the classroom. She wanted to ask her students to discuss these in the local communities in terms of suggestions and applications. She also promoted having training sessions for such actions in the classroom as well as outside the classroom as volunteer assemblies.

She showed much interest to study climate refugees' testimonies and suggested not only using their stories in the curriculum for the students but also meeting them in real life. She commented that-

when climate refugees of Middle East travel to USA or South Asian refugees travel to Europe, they adjust their language and culture according to the setting they have chosen to migrate. And there is a long term impact on education, language and culture that also need to be incorporated in our study.

So, meeting them will be a great source of multi-dimensional information for the students. She also believed that these first-hand experiences could bring more knowledge and understanding of the importance of preserving the climate and the natural habitat:

Climate refugees do come to the town from the outside effected areas for new shelter and new jobs. We have rehabilitation projects and teachers of our departments can observe and research how refugee survives and tries to voice the silence...I think that could open more doors to future students to link up and expand the research areas of climate activists.

She further illustrated that “this is obviously very important, to physically reaching out to these people,” pointing out that these locals have huge source of knowledge, which students must receive. She said when a student reads a text and then meets similar characters in real life, they get more connected. They use their imagination to think about the suffering and provide solutions.

If I compare the four professors with respect to place-based education, I find that they were all supporters of different types of experiential learning. Robert and Alex were more inclined to use outdoor classes whereas Harvey and Donna showed little interest on such an approach. Robert and Alex were more eager to explore experiential learning as nature observation, establishing community gardens, making TikTok videos, using cartoon graphics and flaneur. On the other hand, Harvey and Donna wanted to use the traditional ways of written submissions and promoted various physical volunteering servitudes and visitations to climate effective places. They all agreed on the significance of meeting the local community and climate refugees as a part of their experiential learning.

## 5.2 Theme Two: Environmental Landscapes in Fictions and Non-Fictions

The four professors use texts from Arts and Humanities in their climate pedagogies. Harvey mentioned the works of Donne, Wordsworth, and Frost but he particularly mentioned S. T. Coleridge's *The Rime of the Ancient Mariner* (1798) describing how literature pictures the cruelty of mankind and nature's revenge in return. According to him, this metaphorical poem could be a good example to relate human beings' ignorance to the nature's resources and its consequences. He used this text in his teaching thinking that the students could easily relate the setting with their own situation living in a similar coastal area. Such a practice could be termed as eco-criticism. Regarding the application of the poem, he says:

You know nature's setting is very important in our life and Humanities can help our students to learn nature and its aspects...The death of the bird is a metaphor and it raising the question of animal rights. The symbolic punishment showed in the literary work is also very crucial topic and can be related to natural calamities that takes place due to man destroying natural resources.

Harvey also highlighted Amitav Ghosh's work named *Gun Island* (2019) where the Sundarban is depicted as a victim of human ferocity and industrialization. The text also marks the massive extinction of the Royal Bengal Tigers and therefore features animal rights. The author notes about the issues of Sundarbans caused by climate change and its further consequences faced by the coastal people residing near the Sundarban River. Harvey also pointed out how the royal Bengal tigers may extinct if climate change is not given a focus of attention by the environmentalists and forest preservation is not done.

Moreover, he marks the poem T. S. Eliot's *The Waste Land* (1922), which he believed as an excellent masterpiece to discuss climate change. Emphasizing the importance of this piece of work, he highlights:



Most of the themes in literature are closely associated with climate change phenomena such as *The Waste Land*. I also think that we should improve some courses related to the environmental change, climate change, global warming, pollution, water contamination and so on. I am teaching here the most famous text, *the Waste Land* highlighting the contamination of water and the environment pollution. I pointed out how to compare and contrast a world, which has no pollution, and a world, which is filled with pollution like *The Waste Land*.

Similarly, Donna highlighted the literary works of Amitav Ghosh as it is closely knitted to indigenous locals of South Asia and the present condition of climate crisis. To prioritize this text, she said:

There are some courses that are very related to our lives like those of Amitav Ghosh's works. Now we have many other literatures that have been introduced after the pandemic. Those literature needs to reach us. We, the teachers and the researchers, need to read them and research on them because we can relate to those aspects practically and emotionally as we are living on those realities. So, literature and Humanities should try to respond to this Covid 19 situations especially in the third world and how to deal with it must be illustrated and discussed.

In case of using English literature syllabus for climate change education, she sounded very positive. She believed that it could give the students the scope to expand their horizon of interests and practice eco-criticism. She admitted that she often used sociology, psychology and other disciplinary course materials to illustrate the themes and motives of her literary texts. She also mentioned the text *Love in the time of Cholera (1985)* as a good example to discuss in an open debate regarding the mental health of the victims in a climate crisis and their ways of dealing with it.

Also, she mentioned that some students use resources related to climate refugees and climate change for their thesis. She suggested that climate crisis is a global and never-ending issue and it should be added as a topic of study with or without a fixed syllabus. She believed that if a designed curriculum is not available, climate change issues could be taught from a humanitarian manner where students could be asked voluntarily to talk about

it in the classroom.

Furthermore, Robert also supported using the depiction and description of nature in non-fiction literary works mentioning Vandana Shiva's *Earth Democracy* (2005). He also mentioned Octavia Butler's *the Parable of the Sower* (1993), Naomi Klein's *This Changes Everything: Capitalism vs the Climate* (2014), and Canadian writer Margaret Atwood's *Triology, Oryx and Crake* (2003), and *The Year of the Flood* (2009). Prior to that, he said:

I will always use, uh, artistic works and fiction and poetry, and so on, in, in relation to, uh, more, uh, what you would expect it in academic texts related to climate change...really think about resources that are useful in the context of people's work as teachers or community workers or artistic and creative people, uh, all engaged in really trying to mobilize a broader public around issues of climate change.

Similarly, Alex suggested graphic novels' settings to teach climate change education to students. He said that while sitting in the library with an assigned textbook, the students might use their imagination to view nature's concept and apply compare and contrast theory. This could make learning more fun and might turn the seriousness of the climate crisis into a bit more tolerable to students:

And maybe it's a little less scary because it's a story like, right. Um, but if you already have a bit of a, the way I thought about it is if you already have some of the science that be developed, and now you're reading about a character, who's going through like you're talking about the flooding for instance, right.

All the professors turned out to be great supporters of using various types of texts from various fields. The professors of English Literature used literary productions to discuss climate change depictions. The professors of Education and Social Sciences used graphic novels and climate change related texts. Two of the professors intended to use the traditional English literary pieces and linked it with climate change education. For example- Harvey mentioned *Tintern Abbey* (1798) to describe the before and after situation

of climate change the writer experienced and wanted to discuss it compared to the present situation of the real world. He proposed the same technique with the use of *The Waste Land* (1922). Similarly, Donna showed a more accessible approach to teach where she would mention climate change crisis without a pre-planned outline but through her lectures on literature and its themes. They all carried this notion in common that it could help to decrease the seriousness of the issue and make the study of climate crisis more tolerable for students in the classroom.

### 5.3 Theme Three: Compassion and Empathy

The four professors who participated in the interview agreed that climate change education does not only improve students' knowledge on environmental issues but also helps to build humanitarian features. Harvey strongly emphasized that climate change education could be taught as a source of multipurpose tutelage for the university students. It could not only specialize them in multiple subject areas, but could also help cultivating humane characteristics. Through using latest technologies for teaching and communicating with the locals, it might make learning easier, effective and assessable to the youth and make them aware of the features that are required to become a better human being. This could be achieved in three ways. Firstly, by reading the testimonies of the survivors of climate crisis. Secondly, by comparing them with fictional characters of the texts. Thirdly, by meeting climate victims in real life through visiting their places. He said this might create greater learning scales for students. He specially marked that the texts of Arts and Humanities portray human emotions that could help the students to understand human psyche better and exercise some of the features in their lives. He said:

Climate change education through Humanities may help students building up humane characteristics such as compassion, forgiving, responsible, nurturing and so

on because Humanities is related to human faculties and emotions which I think, can be used as a tool to link up with the present condition of climate change.

He further said, “Our students are our future leaders. No matter in which subject they specialize themselves, they can always apply multi-disciplinary approach in their ways of studies...I always avoid one-sided knowledge. Knowledge must be multi-disciplinary in true nature.” In that sense, he wanted to say that only textual knowledge is one-sided learning achievement whereas literature helps to study human psychology and subjective features that the students must incorporate.

Moreover, Donna highlighted that the younger generation of university students is motivated to visit places that are affected by climate crisis. Moreover, today’s students like to communicate with the victims in person to know their mentality. According to her observation, she found that they bring food, clothing and medicine from the university rescue teams with the sense of responsibility and eagerness to help. This assisted them to exercise humane characteristics of fraternity and sympathy. It not only helped them to build a dutiful personality but also helped them to see things practically and use their rationality in case of judging critical situations. Such brainstorming could help them to become better researchers and critics in the future and motivate to become better citizen and eco-ambassadors. She said:

If they accompany a team and reach out to the victims and record their stories in order to research on human psychology and survival strategies, I think that could open more doors to future students to link up and expand the research areas of climate activists.

Similarly, Robert believed that universities must give platforms for the youth’s voice and must listen to their empathetic realization regarding the global climate crisis. He said that the youth has new ideas that needs a place to be presented and campus is the best

place for it. He believed when we discuss regarding a common problem, we practice mutual trust, compassion, confidence and passion. So, he welcomed the strategies the university students would propose to eradicate the emerging issues of environmental crisis. In short, he addressed a bridge between the teacher and student by opening many options to hear the students in the campus arenas:

So university campuses find ways to facilitate youth and youth thinking differently, youth formulating new ideas and coming up with strategies ... the university is ought to be a real kind of hotbed of transformative activity.

I could relate one of my experiences with him. As I took one of his courses and was assigned to read pages from the given two texts, I was encouraged to share my weekly views and obligations in the discussion panels: Weekly wikis and Forum. My classmates in the course were encouraged to shade their opinions on my thoughts as well and that connected us all together to brainstorm upon a common issue: the global climate crisis. It taught me to be self-opinionated and confident placing my voice in front of others. It taught me that my voice matters to the world and there is always a way where people can connect to each other through subjective values. It worked for me as a therapeutic relief from the anxiety I used to have regarding the future and survival of the next generation.

Supporting the same views, Alex believed that it is time to break down barriers between people, to explain personal emotions by getting them into conversations, to build trust in one another through comfortable sharing of thoughts and observations regarding climate change education. He suggested students should also talk about aspects that are troubling to them. They should come up with the mentality of working together to eradicate the devastating effects of the climate change by constructing a curriculum that might

function and perform the target of having a better eco-friendly world for the future. He further stressed that:

The curriculum must be made in such a way that it connects broader humane issues with climate crisis in terms of the way it is transpired forming the natural world and the role humans are playing in causing it to the local community to be the lived reality of the student in the course.

He further illustrated that by reading the stories of the climate victims and communicating them in real by the students, the course would create a more lasting effect on the students as they can relate and connect their sympathy for their own neighborhood. He drew on an example like if students of Canada could talk to somebody who migrated to Canada from other places and could compare the good/bad environmental changes of both places, this might result to a more engaging compassionate effect to students than just reading climate refugees' testimonies. Moreover, he encouraged having community gardens established in smaller communities where students could go and talk about climate issues with people facing the problems personally to observe the emotional dynamics. He related an experience from his past:

In the community where I live there was an initiative a couple of years ago to build rain gardens in people's front yards to try to make, um, to soak up more water, right. To prevent, uh, flooding in people's basements, you know, these sorts of initiatives or, uh, one of the things we've talked about on this committee that I was just describing to you is maybe thinking about ways where you could do climate teachings, right, where you go to libraries or community centers, and you bring some of these resources, uh, to the public and you find ways to engage with the public.

In short, he emphasized meeting them personally for the students to learn the power of resilience. He believed such interactions might create a huge impact along with theoretical teaching because it might provide a huge sources of useful information on

human psyche, which textbooks might fail to specify. By useful information, he meant life before and after a calamity, survival tactics of men and women, psychological traumas, motivational views, agonies and sorrows and so on to be discussed in classroom seminars. He further thought that it could connect them with the local people with a humanitarian link:

You need people with knowledge and expertise across a wide spectrum of fields. So we can build a climate change education at the post-secondary level, uh, that cuts across disciplines and sheds light on these issues from a variety of different perspectives.

Furthermore, Robert discussed the benefits of outdoor classroom teachings, explaining that such an education is a reinforcement of emotional, behavioral and intellectual development. He illustrated that students who learn through both traditional and modern education of climate change could cultivate a sense of eco-friendly vision of the world and might develop empathy towards other existing entities. He also said,

If you use your imagination and you give your students ample warning, that you can make good use of the out of doors in order to teach across subject areas. And also, I mean, it was a very natural way to begin to address things related to environmental education and climate change education. And it was even able to convince those students who were teaching history or physic

He pointed out that the climate change victim's stories teach us not to give up too easily. In that way, his pedagogy gave the message to students that struggles could be faced with progressive zeal and hope is there to eradicate it. Optimistically, he explained,

And really the thing that I'm trying to achieve in the graduate reports is to encourage people to think very broadly about the kinds of things that can lose in their own living and their own teaching, um, to really try to build support for and mobilize for climate action.

As a teacher of environmental ethics and sustainability, Robert emphasized that by having a curriculum with a strong focus on experiential and community learning, discussing landscapes through texts and an assumption that we will not give up easily, we could teach our students to be resilient, determined and to see things through radical views. He also illustrated that we all want our students to see the world around them from a deeper sense, to look up and appreciate the natural resources. He emphasized that university teachers seek to provide a rich learning environment; one that allows students to enjoy learning, to discover along the way with practicality. Moreover, Robert talked of erasing the mental boundaries and being united to learn from each other. He said:

All of us need to get over the kind of fortress mentality that said that those of us who are living in areas that are unaffected by this kind of human suffering, we put up walls and keep the suffering populations at bay, or we need to kind of like, remember what it is to be human and remember what our humanity calls us to do. ...this is where the universities have a very important place to play in terms of changing the public discourse.

In conclusion, all the professors strongly supported practical knowledge and transformative education. All of them valued the opinion of the young generation, especially university students. They wanted to create such a curriculum that can serve multi-purpose teaching using Arts and Humanities texts to discuss modern climate change crisis. They believed that it serves as a source for multi-purpose learning opportunities for the students in case of their academic and holistic development. They pointed out that it could help to achieve practical experiences as well as exercise humane features in a more effecting and lasting manner.



#### 5.4 Theme Four: Institutional structures - Curriculum and Courses (including interdisciplinary)

The professors admitted that they use their respective curriculums and courses to teach climate change pedagogies and promoted interdisciplinary curriculum approaches. According to Donna, climate change education courses were more readily available in science departments rather than in Humanities in her university. She regretted the fact that because of the lack of resources and structures, the only scope for them to discuss climate issues in the classroom was from the English literature syllabus:

There are very good courses on climate change in department of environmental science and there are other natural science departments. But in Humanities, especially in the department I teach that's English, we do not have any particular course on climate change teaching. But we use some texts that deal with climate change issues. By reflecting on those, we discuss climate changes. Sometimes, students of Masters in their thesis write on climate change knowledge through the study of English literature. So, those are the only scopes for us to discuss the climate change in the department.

She advised to add two to three courses on climate change and discuss climate change related themes depicted in literary productions as a reference tool. Moreover, she was very much eager to add post-pandemic literature to her curriculum. She believed it is time that academics shuffle the traditional syllabus and structure it according to the needs and demands of the post-modern era. She also believed that the Covid-19 pandemic is an eye opener for all regarding climate change issues. The journals as well as the testimonies written on the pandemic could be a great source of knowledge providing a new dimension toward the world of literature studies. Mentioning Arundhati Roy's article, she encouraged teaching post-pandemic literature as a part of the study:

Specially after the pandemic, I think the pandemic has taught us a great lesson regarding our unconcern views to climate changes and incorporating our knowledge in climate changes in our curriculum. But after experiencing the hardships of the

pandemic, we have become conscious of climate changes. With time, climate change education has become a necessity, so as Arundhati Roy said the pandemic is a portal.

Moreover, Harvey pointed out that climate change education is needed as much as any other studies in the academics for the future survival of the people of Khulna city. He strongly believed that because of the lack of knowledge on this subject, it might cause extinction of natural resources:

I think that our civilization is under threat and especially in Bangladesh, because of our negligence in teaching climate change education...So if we make an effort to teach awareness through Humanities courses to the students, including climate change education, it will develop the characteristic of patriotism in students and may contribute in development of other fields too such as animal rights, forest preservation, hygiene awareness and so on.

He highlighted that the rapid increase and unsystematic development of industries caused huge damage to the forests of Sundarban. As Bangladesh is a country of rivers and calamities take place mostly during monsoon, Sundarban works as the ultimate protector of the city and the coastal villages. Only for the lack of knowledge and systematic planning, people are cutting down trees from Sundarban and it is minimizing the over-all width of the forest. He also mentioned that the deterioration of the forest assets might cause numerous problems for the local people and he wanted the students to know and step forward to eradicate deforestation. He admitted that some Asian universities still lack resources and strategies appropriate to teach climate change education and to meet the needs of the students learning outcomes. But he showed optimism for the teachers who are trying their best to meet the expectations. He suggested some plans that could mitigate the gap:

We have lots of shortcomings. We have no language laboratories. Especially for Humanities, we don't have proper research laboratories. This is not a new thing in Bangladesh. Many universities have this scarcity. In this situation, I have a plan. If we organize mini discussion seminars, essay competitions, blog writings, action –

based assignments, set speech, symposiums related to the climate change and its consequences, it will benefit the students of Humanities. I will select such texts from English literature that may work as a tool to discuss climate change.

Similarly, Alex said the institutions are slow in teaching climate change topics to students and the course directors need to speed up with current resources and teaching strategies. But he observed that in the last five years, people are more aware of climate crisis on the local scale. This awareness led many universities to organize its courses dealing with the topic climate change and start associations dealing with climate change education and climate refugees. For example, he mentioned that his university has formed an association called 'climate emergency'. Four professors, along with him, created the subcommittee and appointed a TA to explore environmental and urban changes resulted through climate crisis by sending emails to various faculties regarding curriculum designs and teaching techniques to abate the achievement gap:

We started to put together an educational resource list, and we're hoping to run workshops in the fall with course directors. Some of these different faculties have expressed interest. So that's one project that I, that's what I mean, where I feel a bit of hope and optimism that hopefully we can get the support of the wider university and people from across the faculty.

He reasoned that in an age of media and Internet, students could easily make climate change education more tech-savvy and fun. They could make video speech or tiktok movies and share them on Facebook or other sharing websites or even in the classroom to increase awareness of their fellow classmates. He specially emphasized meeting climate crisis victims and having conversations with them to make visual documentaries on them. He believed such interactions could create a huge impact along with theoretical teaching because:

Our younger generations of students are kind of prepared in this way to think about this issue in this cross-disciplinary/multifaceted way to better prepared and to handle it when it comes within the crisis spaces.

To describe further on his teaching strategies, he said that when he teaches, he imagines his students to be in two categories; one who is learning this for the first time and the other who is experienced. He starts teaching it as if all students could converse these climate crisis topics to their friends and families. Then he engages the other category students into the conversation to relate their experiences. Also, he highly promoted observatory learning, field research assignments and the use of popular culture and art in the classroom as teaching strategies. He believed such open discussions could make learning more interesting and exciting as well as give the students an opportunity to brainstorm on the issue and discuss probable solutions to it. Furthermore, he questioned the use of the word 'refugee' in case of climate crisis in the classroom:

We even have a conversation about whether using the word refugee is the right way to talk about people who are being displaced by a climate change. And we go into how there isn't a, an official kind of legal definition of a climate refugee.

He also believed that such terms must not be used because it might evoke many other terminologies like xenophobia, racism or larger issues related to mobility of place for the cause of survival and identity. So, he welcomed more research and discussion on such terms with more funding as well as radical changes in international law for such initiatives.

He suggested another strategy where he could ask students to bring photographs based on their observation of their neighborhood and climate change in order to provide a flaneur presentation in the classroom. He also believed that critical analysis in written form could be of great importance but active multi-media presentation could be more inter-

actionable. He called this as an active learning process and more engaging one than traditional written submissions. He also suggested showing videos in the classroom made by the students themselves such as TikTok videos/ short YouTube documentaries. Other students could question about the video: what is the story behind it? what motivated him to make it? and what is his purpose of showing this to the class? So, he suggested a mix and match of traditional and popular activities for students to deal with the subjects of climate change. He also suggested graphic novels and cartoon introductions to climate change studies. Instead of sitting in the library with an assigned textbook, teachers could use popular culture education and graphic novels to make things more lucid and approachable. He believed it will make the seriousness a bit more tolerable to students.

Furthermore, Robert also mentioned that teachers still need to step up where they could make students understand the urgency and importance of climate change education. He strongly felt that those who are not affected by climate crisis and somehow blessed with a hazard free past must not create barriers for those who were sufferers of climate calamity. He said this might widen the gap in teaching climate change education and sustainability subjects. Universities must step up and remind that the whole society needs to engage themselves to deal with the catastrophe by dealing responsibilities and obligations towards each other from an altruistic viewpoint:

And I think that that's where universities really need to kind of like step up and remind people of what our responsibilities and our obligations to others. And, you know, this is, this is really, I mean, this is, this is where the universities have a very important place to play in terms of changing the public discourse.

Also, he mentioned “Afro Futurism”, a field of study that evaluates the past and future to create better conditions for the present generation of Black people through the use

of technology, often presented through art, music, and literature. He highly recommended the strategy of amalgamating theoretical knowledge with practical experiences to make learning a lasting achievement. As a teacher of environmental sustainability education and education diploma, Robert said that he try to choose two core texts to ground his course—one is a contemporary essay and the other a work of fiction:

And one of them is always a contemporary essay is, uh, you know, scientific, as you might expect an academic, um, kind of a book on climate change, the environmental crisis. And the other text that I, I always find another text, which is a work of creative work or work of fiction as a companion.

Along with the textual references by the four professors, some other interesting facts came to light. Robert introduced the term “Afro Futurism” believing that it could be a useful topic to study. Alex brought up student initiated multi-media technologies to study climate change education and pointed out the term ‘refugee’ to be re-examined. Donna said a fixed syllabus is not a compulsory requirement but a pre-existing syllabus of literature could be used as a referential tool for climate change education. Havey believed that ignorance might be one of the major the reasons for deforestation and climate change.

### 5.5 Conclusion

In conclusion, it can be said that the four themes that were derived from the interviews with the four professors opened up their distinctive ways of teaching climate change education in the classroom. They all shared a common tension of making their tutelage more resourceful and upgrading. Though they already have a curriculum, they were still looking forward to shape it with more recent publications and to make it more tech savvy. Four of them believed that still more could be offered and they are still lacking behind compared to the speed of climatic crisis taking place every year. However, none of

the professors mentioned the term Cli-Fi in their curriculum designs. All of them intended to use texts from their departments that relate to climate change education with an essence of Arts and Humanities and talk of the present situation of environmental changes based on recent publications. Their beliefs about climate change education serving multipurpose coaching for students added chief attention to the thematic discussion.

## Chapter 6: Conclusion

### 6.0 Introduction

The four Zoom interviews of the chosen professors (two from Khulna University and two from York University) make many topics clearer to me. Climate change education at university level is an important focus for academic instructors around the globe. Teaching climate change education has many benefits in terms of academic pedagogy and students' holistic development in all situations, including the recent post-pandemic scenario. Along with the professors, I also agree that university students undergo a major transformation in their lives. During this period, such a learning approach could help them to develop an eco-friendly attitude having academic and practical knowledge of the world and the future ahead of them. It teaches that education is multi-faceted and multi-purposeful in a post-modern society like today and numerous research has established a complex relationship between knowledge, attitudes, ethics and environmental actions.

Therefore, I conclude by highlighting the core message of this project that teaching climate change education through Arts and Humanities in Bangladesh and abroad, like Canada helps to explore the ethics of environmental precaution, outdoor-experiential learning, social justice and humanitarianism along with the increase of being an expert on multiple subjects for both teachers and students. This final chapter will review the preliminary research questions that guided me as a series of catalysts for the project. The later part of this chapter will illustrate some of my recommendations for practice, policy, and areas for further research, limitations of this project, and some last few words.



## 6.1 Research Questions

Through the four interviews with professors from Canada and Bangladesh, transnational perspectives on the incorporation of Arts and Humanities texts to teach climate change education in universities came to the spotlight. They also suggested some strategies that can be included beyond the physical limits of the classrooms. Moreover, they discussed how such an approach with multi-faceted strategies could bring upon various benefits to students in their academic and personal lives. This section will be a response to the questions that formed the core foundation of my research:

*(i) What are the key features of university-based climate change education?*

My interview analysis reveals a series of key themes which my respondents consider significant in their climate change teaching. These are:

(a) Place-based education, such as- outdoor classes, nature observation, visiting climate effected areas, meeting climate refugees, establishing community gardens and exploring local NGOs: The professors suggested that outdoor place-based learning is important along with textual learning on climate change education. According to them, when students see climate affected areas and climate victims in reality, they connect more to the discussion. They develop a sense of responsibility to voice their opinions for a betterment.

(b) Discussing environmental landscapes depicted in fictions and non-fictions in the classroom: The professors said that the nature and landscapes depicted in literature could be a good referential tool to discuss climate change. Students could use their imagination and apply compatative analysis between utopian and dystopian places of fictions. Non-

fictions like- climate refugees' testimonies, their biographies, documentaries and essays on climate crisis were considered another good source of teaching.

(c) Practicing compassion and empathy for climate victims and the nature: Professors highlighted that when students read climate victims' stories and meet them in real, provide volunteer servitudes, attend training sessions, make documentaries and videos on climate refugees and climate crisis, they become compassionate and empathetic towards nature and the victims. This could help them to become more conscious of the world around them. Such a practice could also provide a holistic development to students' over-all transformation from adolescents to matured adults. It might also improve their sense of belonging to the nature and teach humanitarian characteristics like being resilient, caring, sacrificing, and optimistic.

d) Using English literature, more updated materials and multi-media technologies in curriculum designs: English literature professors said that they use traditional literary pieces to discuss landscapes depicted in the texts. They suggested texts like Amitav Ghosh's *Gun Island* (2019), Gabriel Garcia Marquez's *Love in the time of cholera* (1985), William Wordsworth's *Tintern Abbey* (1798), T.S. Eliot's *The Waste Land* (1922), Samuel Taylor Coleridge's *The Rime of the Ancient Mariner* (1834), Ernest Hemingway's *The Old Man and the Sea* (1952) and so on. These texts were used by them in various ways to discuss climate change topics during classroom activities in their lectures and sessional classes. Their strategy was to describe the depiction of nature in the literary piece and ask to apply compare and contrast theory with the present condition of the environment. Other activities like extempore speech, debate and presentations were suggested along with making tiktok videos, YouTube documentaries and flauers.

*ii) How can universities (including these departments) more effectively reach out and connect with local communities regarding climate change related initiatives and what are the benefits?*

Following the interviews of the professors, the most satisfying answer to this question derived from the professor's suggestion of place-based experiential learning. According to them, outside classroom could make learning more open-minded and approachable. When students visit farms and climate crisis zones, they could associate emotionally with the activists and victims and therefore, could get more connected to them compassionately. Establishing community gardens and opening discussion sessions to all were other effective means of place based learning. Doing volunteering jobs at local NGO and social centers, doing practical research, making documentaries of local places and sharing them in the classroom as well as in local media/websites might connect students with the locals. According to the four professors, it could support as a mean of holistic development to students as they learn the ways of resilience and cultivate love, appreciation and respect for nature and climate victims. It might also improves collaborative-work and communication skills from a meditative stand-point.

*(iii) What are the particular advantages of teaching English literature with a climate change focus?*

According to the four professors, a good number of benefits of teaching English literature with a climate change focus were explained. They said it could make education multi-purposed and help students to use their imagination to create probable solutions. Through this process, students could practice compare and contrast theory between a piece of literary work and the real conditions and suggest remedies for future implementations. It

could help students to create a fusion between the subjective and objective world and connect with the people emotionally and ethically. Fiction could help to explore the possibilities of a changed and changing climate which could be considered as a powerful way to make these abstract futures more immediate for students. As a student of literature, I personally believe that most English and climate fictions show ways in which humanity might manage to respond the apocalyptic nature of the climate crisis. Lots of English literary pieces including short stories, novels, and poems take the more positive, visionary approach to the subject of climate change, focusing on fighting and adapting the crisis. Through envisioning cultural tools and social strategies for transitioning to a post-carbon world, these stories offer inspiration and guidance for how we might address our very real problems through new technology and cultural shifts using the technology we already have. These texts could be used for whole-class reading, and could enrich a larger unit on climate change or even lead to students to research and create their own artistic explorations of futures altered by climate change. One of the professors admitted that students of literature are more prone to use their imagination and emotion from the world of literature and can compare the present situation with the utopian setting of a text. It could embellish their dexterities to use the power of imagination to conceptualize the trauma and horror a climate refugee suffers and thus might connect the student with the victim and makes him responsible to create a future much better than the present.

As a student, I have observed that many fictions focus on the social and practical issues around climate change and the emotional weight of various disasters that come with climate change. This might help students to know human psychology after a climatic trauma and ways of dealing with it. The most important thing that students could learn is

the sense of responsibility to secure Mother Nature and transform themselves into compassionate eco-friendly philanthropists. The professors suggested the following texts for such practices in the classroom: Amitav Ghosh's *Gun Island* (2019), Gabriel Garcia Marquez's *Love in the time of cholera* (1985), William Wordsworth's *Tintern Abbey* (1798), T.S. Eliot's *The Waste Land* (1922), Samuel Taylor Coleridge's *The Rime of the Ancient Mariner* (1834), Ernest Hemingway's *The Old Man and the Sea* (1952), Vandana Shiva's *Earth Democracy* (2005), Octavia Butler's *The Parable of the Sower* (1993), Naomi Klein's *These Changes Everything* (2014), Margaret Atwood's *Trilogy* (2003) and *The Year of the Flood* (2009).

## 6.2 Recommendations

I believe that from this qualitative study, I was able to learn ways in which climate change education is applied in universities. I have interviewed four leading academic professors from two different parts of the world: Bangladesh and Canada to investigate the use of such a pedagogic application in university levels and therefore made a comparison. I hope that this MRP brings countless attention and thoughtfulness to the climate change education as well as a greater appreciation of the work involved in the creation of climate change curricula through inter-disciplinary approach. Based on the conversation with the interviewees, I have arrived to the following recommendations:

- Applying eco-criticism and more experiential learnings as compulsory choices in Arts and Humanities courses.

My first recommendation is the inclusion of eco-criticism along with more outdoor experiential learning in universities of Bangladesh and Canada. One of the professors

mentioned the use of eco-criticism in the interview sessions. Literary criticism is an unavoidable topic for Arts and Humanities students, especially for English literature students, and I have also studied it during my undergraduate studies. Before being able to teach climate change education, he/she must be taught to be a sound eco-critic at first. Eco-critics are trained to “re-read major works of literature from an eco-centric perspective with particular attention to the representation of the natural world...they extend the applicability of a range of eco-centric concepts, using them of things other than the natural world-concepts such as growth and energy, balance and imbalance, symbiosis and mutuality and sustainable or unsustainable uses of energy and resources” (Berry, p.264)

Eco-criticism is the study of the relationship between Humanities’ subjects and the environment in real. It is also called green studies, where the students wear the spectacle of a critic and judge the settings depicted in the text and do compare and contrast theory with the present natural settings around him/her. I would recommend professors to pay more attention to this term and include some of the renowned texts and eco-centric writings in their curriculum designs. For example, I would recommend Ralph Waldo Emerson’s *Nature* (1836), Margaret Fuller’s *Summer on the Lake* (1994), Henry David Thoreau’s *Walden* (1845), Raymond William’s *The Country and the City* (1973), Jonathan Bate’s *Romantic Ecology: Wordsworth and the Environmental Tradition* (1991), Laurence Coupe’s *The Green Studies Reader: From Romanticism to Eco-criticism* (2000), James Thomson’s *The Seasons* (1730), Thomas Gray’s ‘Elegy in a Country Churchyard’ (1751), William Cowper’s *The Task* (1785), Wordsworth’s *The Prelude* (1805), Milton’s *Paradise Lost* (1667) and Herman Melville’s *Moby Dick* (1851).

- More attention and importance must be given to climate change education in the

universities.

My second recommendation is to provide more attention and importance towards teaching climate change education in every possible manner. University professors do carry the notion that today's students are tomorrow's future and therefore, adequate preparation is compulsory for a progressive future. Every adolescent must know his/her duties to protect nature and must realize that having a secured future does not mean having a sound corporate life only but an earth blessed with fresh air, organic food and greenery.

- Adopt the strategies: visiting refugees, outdoor class, volunteering works, visiting local NGOs, using popular media and art

My third recommendation is the adoption of strategies of the interviewed professors' teaching plans into university lesson plans. The suggestions given by them were very effective and all of the strategies must be used. Donna suggested to meet with the locals and have talk therapies, training sessions for the students to know the actions to be taken before and after a natural calamity and promoted social tasks for climate refugees. Harvey advocated for the involvement of a structured syllabus and the use of textbooks of literature to create a connection with climate change education and asked to meet victims who have experienced such a situation. Robert suggested outdoor classroom teaching and valued youth and its voice in case of climate change propagandas. Alex suggested experiential learning by establishing community gardens, discussion sessions in neighbourhood, and using multi-media popular culture like flaneur, climate movies, cartoons and so on. Alex also said that his university has formed a small research organization named climate emergency where they appointed a teaching assistant to send emails to other teachers to get their responses on climate

change related questions. I believe that these suggestions could be great sources to motivate teachers and teaching institutions across the globe.

- Using climate change education texts directly in English literature syllabus

I would like to suggest the frequent use of climate change education texts such as Vandana Shiva's *Earth Democracy* (2005), Octavia Butler's *the Parable of the Sower* (1993), Naomi Klein's *These Changes Everything: Capitalism vs the Climate* (2014), and Canadian writer Margaret Atwood's *Triology, Oryx and Crake* (2003), and *The Year of the Flood* (2009) in English literature lesson-plans. One of the professors believed these texts offer a lot of insights regarding climate change and literature that students can learn. Moreover, I would also like to mention that during my course works, I have read some climate change education books and I would recommend those texts to be added to Bangladeshi universities, especially in Khulna district. In the YU course 5444, I have read Freeman's *Tales of Two Planets* (2020) and Servigne, Stevens & Brown's *How everything can collapse : a manual for our times.*(2020). I found both the texts very informative and discussion-based. In YU online-classes, I used to post my views on the discussion forum called weekly wiki during the course seminars where my classmates used to respond. Such interactions helped me to develop critically on various subjects of climate change. The feedbacks of my classmates on my questions and topics were a boost for me for further inquiry into the matter. I would recommend Bangladeshi professors to use this technique. I would also like to share one of my weekly wikis submissions from the forum in the following as a sample:

The page 177 starts with the groundbreaking accusations to the older generation: Global overpopulation, over-consumption by the rich, and bad technological choices have set our industrial civilization on the road to collapse". Again in page



180, Hans Jones quotes “we prophesy a misfortune so as to stop it happening” It is true that the present environmental instability is the result of the previous generations’ willful act that burdens up the new generation in order to clean their mess for a potential survival. As we teach sustainability education to the younger generation with the ‘pious wish’ of converting them into environmental activists, how responsible we are regarding climate sustainability acts? Later in Page 181, the author directly attacks saying “It is therefore legitimate to wonder if our ancestors really wanted a ‘sustainable’ society. The answer is no. In any case, some ancestors, those who at a given time had the power to impose technological and political decisions on others, chose – *quite knowingly*-an unsustainable society.

# Do you really think it is our previous generation to blame for the present climate changes? (Winter Course 5444, Weekly wiki, session 7, March 2 2021)

### 6.3 Limitations

Like many MRPs, this study has a series of limitations that I have encountered during conducting my research. Firstly, there are limitations linked to data collection and availability of some of the professors. Because of the lock-down protocols and safety-measures, zoom meetings were arranged. This made the meeting too much restricted to timeline and delivery. I believe in person interviews would have been more comfortable. One of the professors took a month to decide a schedule for Zoom meeting. One of them rescheduled the meeting three times within two months and therefore, the promptness of the progress of this project was made lengthier than expected. I was fortunate that I got the Ethic approval very early and started my work or otherwise it might have caused me to extend the deadline for submission. Secondly, two of the professors could not provide outlines as samples of their curriculum. Their suggestions were oral and documentary proofs were not available which made it impossible to collect the totality of the outlines.

Thirdly, students’ opinions were missing. As I finished the four interviews, I felt that students’ opinions and their ways of learning has an equal right of importance to that of the teachers’. This research must have included some students and similar questions

must have been asked to them to know how effective the proposed approach could be on them.

Fourthly, all four participants were from different areas of teaching and therefore they have no say on each other's teaching criterions. The Bangladeshi professors spoke in a different way of viewing the world. They were eager to know what happens academically on the opposite side of the world but they wanted something culturally and contextually more assessable and acceptable to them. On the other hand, the professors from Canada wanted to know how the eastern academic world was working to enrich their knowledge. It was difficult to relate and link to each other when ways of viewing a problem seemed different.

Finally, this research rested on experimental assumptions and subjective attempt of formulating pedagogical ways that could focus the multi faceted purpose of teaching climate change education through Arts and Humanities subjects. I think a more stranded analysis might have been used through ethnographic research, exploring communities in cities who participated in the formation of climate change programs. Despite these challenges, I would say that I was able to address my research questions and the data that I present could foster meaningful questions for policy and practice.

#### 6.4 Last Words

Based on the interview data analysis, it was clearer that the notion of urgency and awareness of teaching climate change education is similar among the teachers of both the countries. The use of fiction and non-fiction texts and various strategies of teaching proved to be very noticeable as appreciable tools of giving climate change education its required

priority. Though the teachers have different notions of using the approach and viewing the ethics of climate change education, their motifs and commitments to make the youth more responsive to the subject were comparable. Due to the lack of resources in Bangladeshi universities, teachers seemed to struggle to build a curriculum that could serve multipurpose agenda to climate change education. On the other hand, Canadian universities have plenty of resources but they still demand the most updated and recent ones. I believe that in future, through the ongoing research and attempts of creating post-pandemic study plans and the urge to know more from the various academies, professors around the world could tackle the obstacle. Moreover, professors showed their eagerness to enrich the field with multi-media and recent research, and this could bring more light to the matter.

I would like to take this opportunity to thank my supervisor Dr. Steven John Alsop for supporting me through this research. My concepts and visions that developed throughout this study were put into play with the help of his supervision and perseverance. I would also like to thank all the participants that took part in this study from Canada and Bangladesh. Their time and dedication were worthy and truly admirable. Each of their knowledge and expertise was not only valuable to my research but will throw more light for further studies I wish to undertake. Their crucial roles in nurturing a passion for academic teaching practices and care for the environment would be a great source of motivation for future researchers. Their zeal of creating a society much better than the present post-pandemic situation and awakening the youth to propagate towards superior potentials through academic pedagogy would assure a better future ahead.

‘Education is not the filling of a pail, but the lighting of a fire.’

–William Butler Yeats

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## Appendix-A : Consent Letter

### Consent Form

Date: 22/03/2021

Student Name: Azmi Azam/ID-218066464

Researcher name:

Principal Investigator: Azmi Azam, M.Ed , Department of Education, York University.

Contact details: Email: [azmiazam88@gmail.com](mailto:azmiazam88@gmail.com) / [azmi88@yorku.ca](mailto:azmi88@yorku.ca)

The Purpose of the Research:

The topic of my qualitative MRP research is “Transnational perspectives in the academy: an exploration of climate change education through the humanities in Canada and Bangladesh”. The main purpose of my research is to investigate the ways of teaching climate change education in Bangladesh and Canada through humanities in PSE. I will also make a quasi-comparative analysis. I have chosen this research topic because climate change is a global threat to the 21<sup>st</sup> century and we need dynamic PSE structures to improve the intellectual capacity to wrestle or decrease the hostile influences of climate catastrophe. Climate change education is crucial to avoid a potential environmental collapse and to activate actions that preserve natural resources assuring an environmental sustainable future.

What You Will Be Asked to Do in the Research:

The participants will be asked 10 open-ended questions related to climate change education and inter-disciplinary approach for PSE. Interviews will take place on Zoom and will last around 30-60 minutes. Responses will be recorded and breaks will be offered where needed. The questions will be sent to interviewees three to four days in advance of the interviews.

Risks and Discomforts:

It is not anticipated that my research and the interview questions will cause any physical, emotional, economic, social or potential discomfort. I assure you that all the

information will be anonymous. The purpose of my research is not to judge professional skills or knowledge but to figure out some possibilities for progressive teaching and learning options for climate change education through humanities.

#### Benefits of the Research and Benefits to You:

This research is important to me. It can potentially open up different opportunities for students in Khulna City. As I am planning my PhD on climate change education in PSE through humanities curriculum prospects, this research will set a strong ground for my further studies. This research does not have direct benefits for you. Indirectly, it offers what I hope is a lively opportunity to discuss climate change and education in Canada and Bangladesh.

#### Voluntary Participation and Withdrawal:

Your participation in the study is completely voluntary and you may choose to stop participating at any time. Your decision not to volunteer, to stop participating, or to refuse to answer particular questions will not influence the nature of the ongoing relationship you may have with the researchers or study staff, or the nature of your relationship with the university either now, or in the future. If you decide to stop participating, you may withdraw without penalty, financial or otherwise, and you will still receive the promised inducement. In the event you withdraw from the study, all associated data collected will be immediately destroyed wherever possible. Should you wish to withdraw after the study, you will have the option to also withdraw your data up until the analysis is complete.

Method: I will conduct semi-structured interviews with 10 open-ended questions which will be circulated in advance.

Duration and place of interview:

Duration: 30 -60 minutes for each.

Place: Live zoom sessions / video recording with consent.

Confidentiality:

The data will be kept for a length of a year till 2022 electronically and will be used as field note of a case study in the research report. Unless you choose otherwise, all information you supply during the research will be held in confidence and unless you specifically indicate your consent, your name will not appear in any report or publication of

the research. Your data will be safely stored in a locked facility and only the researcher will have access to this information. Confidentiality will be provided to the fullest extent possible by law.

This study will use the Zoom to collect data, which is an externally hosted cloud-based service. When information is transmitted over the Internet, privacy cannot be guaranteed. There is always a risk your responses may be intercepted by a third party. Further, while York University researchers will not collect or use IP address or other information, which could link your participant to your computer or electronic devices without informing you, there is a small risk with any platform such as this of data that is collected on external servers falling outside the control of the researcher. Recordings (audio/video) will be saved in a password protected file to research team members' local computer, not the cloud based service. If you are concerned about this, I would be happy to make alternative arrangements using telephone audio recordings.

#### Questions about the Research?

If you have questions about the research in general or about your role in the study, please feel free to contact me at [azmiazam88@gmail.com](mailto:azmiazam88@gmail.com) or my supervisor, Dr. Steven John Alsop at [salsop@yorku.ca](mailto:salsop@yorku.ca) and/or 647 761 2292. You may also contact the Graduate Program at [gradprogram@edu.yorku.ca](mailto:gradprogram@edu.yorku.ca).

This research is intended to receive ethics review and approval by the Delegated Ethics Review Committee, which is delegated authority to review research ethics protocols by the Human Participants Review Sub-Committee, York University's Ethics Review Board, and conforms to the standards of the Canadian Tri-Council Research Ethics guidelines. If you have any questions about this process, or about your rights as a participant in the study, please contact the Sr. Manager & Policy Advisor for the Office of Research Ethics, 5<sup>th</sup> Floor, Kaneff Tower, York University (telephone 416-736-5914 or e-mail [ore@yorku.ca](mailto:ore@yorku.ca)).

#### Legal Rights and Signatures:

I \_\_\_\_\_ consent to participate in the research project: "Transnational perspectives in the academy: an exploration of climate change education through the humanities in Canada and Bangladesh", conducted by Azmi Azam. I have understood the nature of this



project and wish to participate. I am not waiving any of my legal rights by signing this form. My signature below indicates my consent.

Signature \_\_\_\_\_ Date \_\_\_\_\_  
Participant

Signature \_\_\_\_\_ Date \_\_\_\_\_  
Principal Investigator

Additional consent (where applicable)

1. Audio recording

I \_\_\_\_\_ consent to the audio-recording of my interview(s).

2. Video recording or use of photographs

I \_\_\_\_\_ consent to the use of images of me (including photographs, video and other moving images), my environment and property in the following ways (please check all that apply):

In academic articles	<input type="checkbox"/> N	<input checked="" type="checkbox"/> Y
In print, digital and slide form	<input type="checkbox"/> N	<input checked="" type="checkbox"/> Y
In academic presentations	<input type="checkbox"/> N	<input checked="" type="checkbox"/> Y
In media	<input type="checkbox"/> N	<input checked="" type="checkbox"/> Y
In thesis materials	<input type="checkbox"/> N	<input checked="" type="checkbox"/> Y

Signature \_\_\_\_\_ Date \_\_\_\_\_

Participant Name: