



Educational Institutions and Climate Change Awareness: "Analytical Study of UNESCO's Document on Climate Action"

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Abstract

The current research aimed to identify the role of the educational institution in achieving climate change awareness as stated in UNESCO's document on climate action, by highlighting the school's comprehensive approach to addressing the phenomenon of climate change, in addition to upgrading the essential mechanisms for this. The descriptive approach was used for analyzing UNESCO's document on climate action and activating the content analysis style in its qualitative dimension. The research found that awareness of the phenomenon of climate change is one of the most important strategies that enable individuals to prepare to face this phenomenon and try to mitigate its effects on societies. Educational institutions have the largest role in achieving awareness of climate change, which enriches environmental knowledge and skills of rational dealing with the environment.

Keywords: UNESCO's Document, Climate change, Educational institution

Introduction

Climate change is the result of the action of human intervention in nature, and the resulting emergence of various environmental imbalances that caused the emergence of the so-called phenomenon of "climate change" and the resulting rise in temperatures and sea level rise due to various harmful emissions. This drew the attention of the whole world to this phenomenon and tried to study it and prepare to confront it in order to mitigate its effects on the planet, in order for humanity to enjoy a safer environment, a more quality life and more sustainable development.

Environmental issues, including climate change, are also considered one of the most important issues that have attracted the attention of many scientists and specialists during the twenty-first century as one of the pillars on which sustainable development depends in all developed and developing countries alike, as recent decades have witnessed an increase in environmental problems at the local and global levels (Al zyadat, 2013, 1344). The phenomenon of climate change is also a global phenomenon, but its effects are local, which vary from place to place on the surface of the globe due to the nature and sensitivity of the ecosystems in each region (Fawaz & Suleiman, 2015, 1). As greenhouse gas levels continue to climb, climate change is occurring much faster than anticipated, and its effects are evident worldwide. The global mean temperature for 2018 was approximately 1°C above the pre-industrial baseline, and the last four years have been the warmest on record. Sea levels continue to rise at an accelerating rate (UN, 2019).

Therefore, UNESCO, one of the international organizations, paid attention to this issue and worked to highlight the role of educational institutions in shaping environmental awareness among students, and issued the climate action document, in a serious attempt to participate in identifying the phenomenon of climate change and mitigating its effects. Hence

the current research to identify the main role of the educational institution in achieving awareness of environmental issues, including climate change, as the educational institution has an effective role in building awareness and shaping behavior, so the current research discussed the steps and approach of the comprehensive school in its readiness to address the phenomenon of climate change, by developing the necessary strategies for that.

Sustainable development is concerned with society, the environment, the rational economy and security in its comprehensive sense, and seeks to promote them together without disturbing their balances while preserving the rights of future generations of natural resources. On the other hand, education is the main engine of development, as it is the basis that determines the quality and capabilities of human beings and the progress and development of any society, and it also plays a major role in the required transformation into more environmentally sustainable societies. Education instills environmental values, knowledge and behaviors, and contributes to the development of skills, concepts and tools that can be used to reduce or stop unsustainable practices such as overconsumption of resources (Al-Baha'i, 2017, 380).

Accordingly, the attention of the leaders of countries and various international organizations has turned to the phenomenon of climate change as one of the most life-threatening phenomena on the planet. One of these international organizations is UNESCO, which has focused its permanent efforts towards the serious roles that various institutions, including the educational institution, can play in confronting and addressing the phenomenon of climate change, by building awareness of this phenomenon through the educational institution, because of its effective role in shaping societal awareness towards various phenomena. Hence the justifications for the research are as follows:

1. Climate change is a common factor among all countries, with its adverse effects a threat to all countries.
2. The permanent efforts and increasing initiatives by leaders of countries and organizations on climate action to plan to confront and mitigate the climate changes effects at the national and international levels.
3. The educational institution is a major tool and an effective means in building the human being, shaping his awareness and knowledge, expanding his perceptions, developing his capabilities and his vision of the world.
4. Considering the human being as an effective element in sustainable development, as it is the main means of exploiting resources, investing them in a beneficial way and using them optimally.
5. International attention of ecological issues - including climate change - is a serious attempt to ward off potential threats to the planet.

Statement of the problem

In light of the transformations and changes that the world is witnessing, the phenomenon of climate change has become a major concern at all levels, local, regional and international, which poses a clear threat to life on the planet. Therefore, all international efforts have been concerted to search for possible solutions used by the world to confront climate changes, mitigate their harmful effects on the environment and damage its multiple elements, which negatively affects the economic, social and environmental aspects.

Extrapolating the results of previous studies on the phenomenon of climate change, which showed that there is a knowledge gap between environmental challenges and what the students study of concepts related to the environment that do not cover all challenges, which results in low environmental awareness and knowledge of students on how to preserve the

environment, and that polluting activities have led to an increase in the severity of natural disasters, which threatens human existence, Therefore, awareness of the phenomenon of climate change enhances the ability to adopt effective measures to adapt to climate change, and since the educational institution is one of the most influential institutions in society, which shows its main role in shaping human's climate changes awareness and how to deal with this phenomenon and reduce its effects.

Accordingly, the present study sought to find answers to the following main question:
What is the role of the educational institution in achieving awareness of climate change in light of UNESCO's Document on Climate Action?

The previous main question was investigated through answering the following sub-questions:

1. What is the phenomenon of climate change and its resulting effects?
2. What is the educational institution's comprehensive approach for addressing climate change?
3. What are the most important strategies needed to address climate change as outlined in UNESCO's Document on Climate Action?

Aim of the research

The current research aimed to identify the role of the educational institution in achieving climate change awareness as stated in the UNESCO's document on climate action, by highlighting the school's comprehensive approach to addressing the climate changes and improving the essential mechanisms to confront climate changes.

Significance of the research

The importance of the current research was as follows:

1. Developing concepts related to environmental issues at the local and global levels and a sense of belonging to the wider world through participation in it and integration into all practices concerned with international affairs.
2. Directing human awareness towards correct environmental practices and enlightening it about problems that represent a danger to the environment in all its elements.
3. Activating the educational role of the school in achieving human awareness of the climatic phenomenon and related matters that affect, directly or indirectly, the planet.
4. Recognizing the magnitude of the responsibility of man towards the environment in which he lives, and enlighten him of the positive role that he must play towards the local and global environment.
5. Awareness of the common role of all countries about climate changes and ecological issues in general.

Limits of the research

The limits of the current research are as follows:

1. ***Institutional limits:*** represented by the United Nations Educational, Scientific and Cultural Organization (UNESCO) and its efforts in education.
2. ***Objective limits:*** discussing and analyzing UNESCO's document on climate action and revealing the role of the educational institution in achieving climate changes awareness.

Methodology of the research

The descriptive approach was used for analyzing the UNESCO's document on climate action, and extracting the most important objectives of the educational field and contents that work to achieve awareness of climate change. The content analysis style in its qualitative dimension was activated, in order to analyze and study the main issues, ideas and concepts related to the field of education, by discussing the characteristics and approach of the comprehensive school, and benefiting from them in the face of the phenomenon of climate change.

Literature Review

The current research dealt with a number of previous studies that were presented from the latest to the oldest, as follows:

The study of Venghaus et al. (2022) aimed to reveal the impact of climate change awareness on behavioral changes, and whether the recent increase in climate change awareness has led to changes in public perceptions related to environmental and sustainability issues or to sustainable behavioral shifts. The study used Germany as a case study. The results showed that increased awareness of climate change has stimulated dynamics in the climate change debate both among populations and in the political sphere, opening a window of opportunity for major shifts towards more effective and rigorous climate policies. Politicians and policymakers now have the opportunity to implement sustainability measures with strong support from the population, even if these involve higher costs.

While the study of Lokal (2020) dealt with the definition of the UN climate change conferences as a periodic international mechanism with a significant impact in the field of international environmental law, due to the lack of knowledge of a large sector of jurists

despite their knowledge of many of its outputs, in addition to raising awareness and sensitization of international efforts to preserve the planet's climate and the consequences of global warming and pollution in general on present and future generations. The study used the historical, descriptive and analytical approach, each according to its appropriate place. The study found that polluting industrial activities have led to an increase in the severity of natural disasters, threatening human existence.

The study of Abbasi and Nawaz (2020) illustrated the effect of climate changes awareness on climate changes adaptation and its issues and interactions to help address local issues arising from global climate change. The study used the descriptive approach, and the results found a positive association between climate change awareness and climate change adaptation, which is consistent with other studies in considering climate change awareness as a significant contributor to the ability of key innovators to adopt effective climate change adaptation measures.

The study of Al-Baha'i (2017) also aimed to integrate the environmental dimension in education to support sustainable development in Egypt, and in order to achieve this goal, the concept of environmental education was studied, and environmental concepts were reviewed in the curricula for pre-university education for the year 2016/2017. The study found that there is a knowledge gap between the environmental challenges in the Egyptian society and the concepts studied by the student related to the environment that do not cover all challenges, which results in low environmental awareness and knowledge of students on how to preserve the environment, maintain it and not waste the use of its resources, and invest it in a way that achieves rational use and preserves the rights of future generations.

The study of Guimaraes et al. (2017) tried to identify the role of the primary school in spreading water environmental awareness to students in Brazil, workshops were applied,

direct observation and distribution of a questionnaire before participating in activities and a post-questionnaire, where the study sample consisted of (109) students from the sixth, seventh and eighth grades in Brazilian public schools. The results found that students acquire skills, knowledge and values that support and preserve the environment, as well as emphasizing concern for the environment within the school.

The study of Al-Hussein and Helmy (2017) discussed the requirements of international conventions and conventions in order to identify the strengths and weaknesses and their effectiveness in ensuring the protection of human rights from climate change. The study used the analytical legal approach in addition to the historical approach to evaluate international experiences in the field of international cooperation to confront climate change threats, and to explore the prospects for the work of international organizations to provide realistic solutions in light of the conflict of interests between international parties. The study found that climate change is a greater threat to sustainable development in poor countries than rich countries, despite contributing only a small percentage to the emissions of greenhouse gases.

The study of Mohammed and Al-Hazloul (2016) identified the effectiveness of a proposed training program to develop environmental awareness and its impact on environmental trends and the ability to make environmental decisions among female students teachers in kindergartens at the College of Education at Al-Jouf University. The sample of study consisted of (80) female students of the eighth level, divided into two groups, a control group, and an experimental group. The study found that there were statistically significant differences between the average scores of the experimental and control groups in environmental awareness after applying the program in favor of the experimental group, and there were statistically significant differences between the average scores of the experimental

group in the pre- and post-measurements in each of: (environmental awareness, environmental trends, and the ability to make environmental decisions).

The study of Dal et al. (2015) investigated social studies and science teachers' awareness on climate change and how the professional development workshop "Awareness and Adaptation to Climate Change" affects teachers' awareness level. For this purpose, a total of 101 teachers from 8 different cities and 4 geographical locations participated in the workshop and took part in the study. For data collection purposes, the Awareness to Climate Change Questionnaire (ACCQ) was used. The analysis revealed no statistical difference among participating teachers' awareness level based on pre-test scores. However, further analysis indicates an increase in awareness on climate change among participating teachers upon completion of the professional development workshops.

The study of Rahman et al. (2014) aimed to detect awareness of climate change among secondary school students, as creating awareness of climate change is central to adaptation and mitigation strategies. It also aimed to recognize how diverse demographic profiles and students' inherent academic background play a role in their knowledge of climate change. The study was based on high school students' responses in Bangladesh, and their realization about climate changes. In addition to using the Climate Awareness Index (CAI), the relative roles of the demographic determinants of consciousness were then compared, and the results of the study showed that the factor of religion, gender, parental education, occupation, income, etc., can affect students' knowledge of climate change in Bangladesh.

The study of Al-Ziadat (2013) dealt with the level of environmental awareness among social studies teachers in Jordan, and its relationship to some variables, and the study sample consisted of (42) teachers, and a measure of environmental awareness was prepared, and the study used the descriptive survey method. The results showed that the level of environmental

awareness is less than the educationally acceptable level and varies according to the specialization and was in favor of the geography major, and the study also found that the level of environmental awareness does not differ according to gender and the number of years of experience.

The study of Nkambwe and Essilfie (2012) tried to discuss the development of education in schools through the inclusion of environmental education in the curriculum in Botswana, and the role of teachers in environmental education and where a questionnaire was distributed to (16) schools. The study used the descriptive survey approach, and the study reached results, including: that the role of teachers was limited in environmental education for students, and the need to focus on the role of teachers by making adjustments to the concept of environment in schools.

The study of Al-Subaie (2012) also aimed to discuss and address the harbingers of international cooperation in order to reduce climate change since the environmental issue entered the attention of international institutions at the beginning of the seventies until the succession of scientific evidence on the reality of the phenomenon and the frequency of news about the damage caused by it in the eighties and climate change represented an independent axis of international cooperation from the nineties until now. The study found that openness in international relations played a crucial role in pushing for agreement on a formula for cooperation in the framework of reducing climate change.

Commentary:

The current research discussed a number of previous studies that dealt with environmental issues in general, and the phenomenon of climate change in particular, where some dealt with international cooperation efforts in order to confront the climate changes and reduce their effects, and others discussed measuring the level of environmental awareness

among students and the role of teachers and curricula, while some of them tried to discuss the application of programs that achieve the dimensions of this issue, and the current research agreed with previous studies in dealing with the phenomenon of climate changes, but the current research was unique from previous studies in terms of discussing the consolidation of climate changes awareness and the role of the educational institution in achieving it, through the vision of the "UNESCO's Document on Climate Action" issued by UNESCO, as previous studies did not address this document, the current research was unique in studying it and analyzing its content.

Terms of the research

The current research dealt with the following terms:

1. Climate Change

The United Nations Framework Convention on Climate Change (UNFCCC) 1992 defined climate change as "a change in climate attributable directly or indirectly to human activity that leads to a change in the composition of the global atmosphere observed, in addition to natural variability of the climate, over similar periods of time."

The current research has defined it operationally as: disturbances in the Earth's atmosphere as a result of wrong human behaviors, which led to an increase in the emission of harmful gases that caused imbalance in various environmental elements such as wind and temperature.

2. Climate change awareness

This requires, first, the formation of environmental awareness among individuals to recognize and deal with various environmental phenomena.

Al-Bahá'í 2017 defined it as: that pattern that aims to form a conscious generation interested in the environment and related problems, and has the knowledge and mental abilities that allow it to practice, individually and collectively, solving existing problems, and preventing them from returning. This definition emphasizes the importance of forming environmental awareness for individuals, which is one of the most important demands of environmental education.

The current research defined it operationally as: a set of ideas and concepts that the educational institution acquires among its students to work on understanding climatic phenomena, which leads to the sum of positive behaviors and practices towards the environment and dealing with its elements in an effective manner that reduces the effects resulting from various environmental imbalances.

3. Climate Action Document

An international document issued in 2016, modeled after the international symposium entitled "Preparing for Climate Change: The Response of the UNESCO Associated Schools Network to Climate Change", Paris, France, 7-8 December 2015, supervised by the auspices of the UNESCO Education for Sustainable Development Division and the UNESCO ASPnet Unit (UNESCO, 2016, 1).

Plan of the research

The current research proceeded according to the following scheme:

- Preface: Includes the general framework of the research.
- The first theme: the phenomenon of climate change - the concept and the resulting effects.

- The second theme: the comprehensive educational institution's approach to addressing climate change.
- The third theme: strategies to confront climate change in the light of the UNESCO's document on climate action.
- Conclusion: includes the results of research and its proposals.

These themes are discussed and clarified below:

The first theme: the phenomenon of climate change - the concept and the resulting effects.

The incorrect behaviors of humans in their dealings with the environment with its various elements have led to an unprecedented rise in temperatures that are increasingly high than ever before due to the emission of greenhouse gases. Over time, this rise in temperatures has led to unusual climate changes that have appeared in weather patterns, and nature has been subjected to imbalances and disturbances in its usual balance, which poses many risks to human life and all other life on Earth.

"Climate change" is defined as an imbalance in the usual climatic conditions such as heat, wind patterns and precipitation that characterize each region on Earth. The pace and magnitude of comprehensive climate changes in the long term will lead to enormous effects on natural biological systems, and worsening temperatures will lead to a change in weather types such as wind patterns and the amount and types of precipitation. In addition to the occurrence of several possible extreme weather events, leading to wide-ranging and unpredictable environmental, social and economic consequences, human activities represented by the industrial and technological revolution have led to an increase in the rate

of greenhouse gas emissions and an increase in their concentrations in the atmosphere (Ministry of Environment, 2022).

If the impact of such human activities has now appeared on different forms of life, this means the formation of harmful effects resulting from incorrect environmental behaviors that have been adopted by man over periods of time and are not born of the present time, this has led to disturbed weather events, including: high temperatures, devastating hurricanes, floods that destroy homes and cities, displacement concentrated in poor areas most vulnerable to climate change, and affecting human health and other living organisms.

Other impacts from climate change, include (United Nations, 2022):

1. Warming of the earth's surface with rising concentrations of greenhouse gases and the spread of heat-related diseases.
2. Intensify destructive storms for communities, causing deaths and heavy economic losses.
3. Increased drought as a result of climate change, exacerbating water shortages in water-poor areas, and weakening ecosystems.
4. Warming oceans, putting marine life and coral reefs at risk.
5. Climate change poses risks to the survival of species on land and in the oceans.
6. Food shortages, as fisheries, crops and livestock may be destroyed or become less productive.
7. More health risks, through air pollution, disease, extreme weather events, forced displacement, mental health pressures, and increased hunger and malnutrition.
8. Climate change is a factor leading to a rise in poverty and displacement.

These changes caused by climate change have the potential to: Damage or disrupt infrastructure that delivers core services such as power, transport, water and communications;

Increase the costs and maintenance of community infrastructure such as pools, sporting grounds, parks and gardens, halls, cemeteries and libraries; Permanently modify the habitats of the region's flora and fauna; Increase risks to developments in floodplains and bushfire prone areas; and challenge the basis of the region's economic sectors and the provision of social services(Larsen & McGuinness, 2016, 396).

Thus, all efforts and international powers at all levels have joined forces to hold the necessary discussions and discuss measures and ways to reduce climate change, including, but not limited to: the United Nations Framework Convention on Climate Change in 1992, and the Paris Agreement in 2015, the latest of which was the internationally known Climate Summit (COP27), which was held in Sharm El-Sheikh, Arab Republic of Egypt in 2022. This has resulted in a diversity of visions and ideas related to confronting and confronting this phenomenon and trying to mitigate its life-threatening effects on the planet.

The second theme: the comprehensive educational institution's approach to addressing climate change.

The educational institution is a source of a real educational revolution and a pillar of positive progress towards the desired sustainable development, so the educational institution should be based on many purposes that adopt a renewal vision for sustainable development that takes into account all aspects, economic, social and environmental, and everything that can achieve benefits for all, which contributes to enabling us to live in a better world that has all the elements of human development.

Climate changes are considered the defining challenges of this century, both in terms of the response required to face them and the methods needed to address their harmful effects. Endeavors to mitigate these adverse impacts call for a shared commitment to work to contain carbon emissions, in order to prevent further severe implications for our planet;

adjustment efforts require reducing weaknesses and block structures that are resilient to these impacts. Education has a critical role to play in raising awareness, promoting behavior change, climate change mitigation and adaptation efforts (UNESCO, 2015, 28).

ESD focuses on integrating key environmental concepts and issues into the teaching and learning process to become more inclusive of these issues, allowing students to link what they have learned in class with their behaviors outside of school, giving them a better possibility to lead by example in positively changing their behaviors, and in contributing to the development of science and applications that guide our future towards sustainable development (Al-Baha'i, 2017, 393). Therefore, work should be done to make the educational institution climate-friendly through the use of some necessary measures, including:

First: Creating a culture of sustainability in the educational institution.

The belief in the existence of a culture of sustainability within the educational institution is one of the school cultures that play some of the appropriate roles in an action and implement it, which contributes to drawing and acting on the climate action map in order to understand the environmental challenges facing society and develop possible solutions to address them and mitigate their effects, through the participation of the educational institution as a major tributary of the educational community that contributes to the consolidation of the culture adopted by the community and the formation of awareness of the challenges facing it.

The culture of sustainability within the educational institution is a culture in which all members of the institution believe in common beliefs and values that mean taking appropriate actions to create more sustainable communities, caring for the environment and participating in mitigating climate changes are complementary to this culture. Thus, showing what climate action means for an educational institution is portion of creating sustainability culture. Some educational institutions view climate action as principal to the role in caring for the planet.

Other schools see this work as a pragmatic manner to help not only student but also his family keep secured and get future-ready (UNESCO, 2016, 5). This is achieved by raising the cultural and environmental level of individuals, developing positive behavioral attitudes towards the environment to preserve all its natural and non-natural elements, and the individual's awareness of the importance of preserving his environment, and working not to disturb the natural ecological balance, which generates the responsibility to protect the environment within society for a better life (Mohammed and Al-Hazloul, 2016, 3).

The existence of a culture of sustainability within the educational institution enables individuals to fully believe in the necessity of performing the roles entrusted to it to implement everything that can achieve responsible awareness towards the ecosystem and the challenges it faces within societies at all local, regional and international levels, therefore, this culture must be developed within the educational institution and implemented continuously within the strategic initiatives of the institution and the development of laws and regulations related to it.

Second: Integration of self-roles in the educational institution.

Collective participation is one of the most important factors for the success of any institution, as all its members bear full responsibility for its policies and programs and the implementation of those policies in line with the vision of the institution, the roles of the members of the educational institution (students, teachers, school administrators, support staff, trustees, families and the community) are multiple, which together form the features of a comprehensive institution to identify the skills and knowledge needed to act on climate changes and enable their real-world application.

Everyone in the educational institution has a role to practise in working towards the institution's goals on climate changes. This is in fact a defined theme of the inclusive

institution approach. In practically, engaging the entire organization helps to share the workload. In profoundly, an inclusive approach brings together a variety of knowledge, skills and perspectives to allow the theme to be approached from a truly holistic angle and to create a commitment among all stakeholders involved in sustaining climate action projects over time. Enabling everyone to participate gives everyone the opportunity to acquire knowledge and improve skills like critical thinking, consensus-building and empathy, which are necessary to create a more sustainable community (UNESCO, 2016, 6).

Third: Good planning and taking the necessary measures.

Good planning enables proactive actions and measures that adapt to climate changes and reduce their effects on a regional scale, thus contributing to mitigating climate changes and attempting to prevent the damage caused by it, this is done by preparing the members of the educational institution to participate, collect the necessary data, coordinate it within the climate action team, take appropriate initiatives and develop the necessary executive procedures.

It is possible that the educational institution will actually undertake some activities on climate action. Students may have grown local trees in the internal and external space, or the institution may have taken measures to cut power usage. But what else may an educational institution do to limit climate changes and how to promote current initiatives and make new actions? What defines a holistic school approach is an obligation to continuous upgrading by good planning, work and introspection (UNESCO, 2016, 8).

Dealing with climate change can focus either on mitigation, i.e., on limiting the magnitude of changes, or on adaptation, with the aim of making such adjustments so that adverse effects are minimized. This is done through a set of regulations and technical changes that societies will have to implement to reduce the negative effects of climate change and

maximize the beneficial effects. Adaptations are then implemented, when the impact of climate change is already present. Adaptation is also prepared in advance, in an effort to reduce vulnerability or take advantage of upcoming changes (Toth et al, 2020).

At the same time, education is a main method of adaptability to climate change, since the skills, knowledge and behaviors essential to adapt life and livelihoods, in accordance with the social, economic and ecological realities of a changing environment, must be handed down to current and future generations. The 2014 Lima Ministerial Declaration on Education and Awareness encouraged governments to improve education methods that integrate climate changes into educational curricula and to integrate climate change education into the design and implementation of national development, climate changes strategies and policies, consistent with their national priorities and competencies (UNESCO, 2015, 28-29).

For this reason, the current research discussed in the third section some of the mechanisms necessary to deal with the phenomenon of climate change as mentioned in the UNESCO's document on climate action to achieve awareness of this phenomenon and present the necessary strategies to confront it and mitigate its effects in line with the changing environmental reality at the local level and in line with national preparations.

The third theme: strategies to confront climate change in the light of the UNESCO's document on climate action.

With the increasing calls for solidarity among all countries to confront the phenomenon of climate changes, which confirms that there is an urgent need for international interdependence, educational institutions, including the educational institution, have the primary responsibility to research and raise awareness of this phenomenon, and to develop the necessary ways and mechanisms to make it into effect and empowerment, In order to understand climate change and the various environmental challenges that have a significant

impact on societies. Thus, educational institutions afford the brunt of dealing with the phenomenon of climate change.

Therefore, some principles and strategies necessary to achieve awareness of and confront the phenomenon of climate change should be taken into account, bearing in mind that these strategies and guidelines are interrelated and inseparable from each other, as they perform their functions fully with each other, including:

First: Strategies for School Administration

There are some strategies for school Administration in order to deal with climate change, including:

1. Establish a climate action team to coordinate the educational institution's work in the field of climate, and work to achieve the institution's goals of climate action. In addition to sharing roles and responsibilities in order to achieve effectiveness at work.
2. Achieve partnership between the educational institution and civil society actors working on global and local issues and involve these actors in school activities.
3. Hold periodic meetings throughout the school year in order to coordinate the development of the plan on climate action in consultations with all other contributors in the educational institution, plan projects and works, assess progress and adjust plans as necessary.
4. Coordinate with other governmental and non-governmental bodies to prepare field visits that develop interaction and participation among students.
5. The Climate Action Group must contain all different teams, within and outside the institution, which may have an interest in the educational institution's initiatives on climate actions, to benefit from the different skills, knowledge and perspectives of the team. In establishing this group, please keep in mind (UNESCO, 2016, 11):

- Involve student representatives from different backgrounds and various grades/old collections. Remember the explanation of the range to which student will (or won't) have a power of decision-making. It'll enable avoid the frustrations which may create when student knows that not all of his ideas have been practiced.
- Strive to find vices of the components of the educational society: principals, educators, trustees, administrators, families, canteen employees and support officers.
- Advocate organizations and individuals in the local society, who may be influenced by the educational institution's ventures and who may present technical experience and all strengthening to future's ventures. They may contain environmentally-conscious institutions, neighborhoods adjacent to the school, national enterprises, and governmental vices.
- Assure the involvement of girls, boys, women and men and assure their equal leadership. As possible, the Group of Climate Action must be elected, not mandated, In order to speak freely and work on behalf of the team they represent, confer with them and fill their potential.
- Within the available possibilities, the Climate Action Group is elected instead of appointed, as well as consult and mobilize members.

Second: Strategies for Teaching and Learning

The learning and teaching process is concerned with providing learners with the necessary knowledge and skills, so everything related to climate change and environmental challenges must be included in what students learn, and since learning enables students to absorb and understand the different and diverse realities that concern life and societal issues,

so some strategies for the teaching and learning processes to confront climate change should be taken into account, including:

1. Include topics related to climate change in school subjects

Tackling climate change is extremely difficult. They involve technological, scientific, political, ethnic, cultural, social, economic and environmental issues. For this reason, the educational institution must contain climatic topics in all subjects, the need for an extraordinary session to learn about climate changes was not necessary, although these sessions were definitely useful, as relevant issues could be included in each subject. Therefore, UNESCO's document singled out its vision about the climate changes inclusion in educational subjects as shown in table 1.

2. Teaching and learning include thinking skills

In today's world, complex and changing things are becoming more, so it's not enough to learn certain thoughts on climate changes that experts endorse. Rather, teaching and learning should include different thinking skills in order to improve and develop strategies related to climate change.

UNESCO's Document on Climate Action emphasized the need to teach the diverse thinking skills needed by students, as follows (UNESCO, 2016, 13):

- Criticism: Such as identifying data or ideas needed to examine a matter; reviewing evidence in support of a specified situation; and presenting various proposals.
- Creativity: Seeking potential; leveraging other people's culture, time durations and contents; and creating innovative alternatives.
- The future side: Setting visions for the future; drawing the possible consequences of different decisions; and taking into account the principle of extreme care.

Learning based on thinking skills and its various strategies organizes the work of groups and their participation in various activities, which plays a positive role in achieving the common goals of collaborative research projects that concern a topic. This is done by starting students and finding the diverse answers to each issue, taking into account taking different positions and actions in light of multiple points of view.

Table 1

Inclusion of Climate Change Topics in Subjects (UNESCO, 2016, 11-12)

SUBJECT	EXAMPLES
Agriculture/gardening	-Design and maintenance of an institute garden. -Interviewing local farmers, men and women, to find out how climate change is affecting them.
Arts - Visual and Performing	-Preparation of stickers indicating the effects of climate changes. -Analysis of songs concern with issues of environment.
Biology	- Preparing research to know the impact of climate changes on the spread of diseases like malaria. -Measuring biodiversity in the squares of institution and society.
Civics/Citizenship	-Interviewing national employees on what they are doing to deal with climate changes. -Planning a society cleanup of the beaches and parks.
Geography	-Conducting field visits to find out the reasons and impacts of urban extension. -Mapping the world regions most vulnerable to climate changes.
Ph.E	-Showing observance towards the environment during taking trips on tracks around the institution. -Find out health threats related to factors of environment like air pollution. -List the environmental advantages of useful practices like walking or cycling.
History	-Find out how communities all history have solved struggles and faced the crises of environment. -Conduct researches on normal environmental seeing and examine how it can be applied to (SD) matters.
Languages	-Using the communication skills required to discuss national and international matters. -Writing poetry and story influenced by pictures or videos discuss climate changes.
Maths	-Making graphs showing variations in institution power utilization. -Preparing gender-disaggregated Statistical data on under-nutrition and poverty at all regional and international levels.
Science and Tech.	-Research on human and natural agents which affect the climate. -Assessing the effects of common chemicals from the environmental, economic and social aspects.
Tech. and Vocational Education	-Using workplace integrity steps which make protection for workers' health and our ecosystem. -Identifying tech. means which deal with concerns related to environment. -Including responsibility in the product designs at the social and environmental level.

3. Give possible opportunities to students and enable them to take action on their own

Enabling students to discover the different properties of things around them and giving them the appropriate opportunities to apply what they have learned of different skills develops their different talents and abilities, so students should be directed towards research projects and develop and improve action plans regarding environmental issues, climate change and everything related to the ecosystem.

Learning must also be action-oriented, because of the crisis of climate. UNESCO's Document on Climate Action refers to 3 points in which learners can be empowered to take action (UNESCO, 2016, 14):

- Learning about work – by teaching learners the required skills to succeed. such as asking learners to learn about the history of regional and international actions to bring about changes and requiring learners to practise skills for taking actions (e.g., convergence of views, positive dialogue, advocacy, empathy).
- Learning by doing – asking learners to choose and design the projects on climate action. Learners might have worked on own hands-on project in the classroom or through external activities. Whatever the case, the aim is to enable learners to practise what they have learned as a method for favorable way in their life, school and society, and help learners improve their capabilities and gain the determination for taking actions.
- Learning from work – Ask learners to think about their achievements, skills they have developed, and what they will do in a different way.

Third: Strategies for Facilities and Operations

It is intended to make an educational institution a model for climate action, where the campus – a place where students learn most of what they learn about climate change – should be a reflection of the educational institution's values. Among these values, the belief of the students affiliated with the institution comes to work and improve continuously, in order to confront climate changes and reduce their effects on the national society.

Therefore, actions and strategies should be taken to reduce climate change and achieve environmental improvements through which the educational institution becomes more sustainable such as planting trees, composting, and using energy, water and paper more efficiently. It can be a model for climate actions and sustainability in a variety of ways.

Table 2

Strategies for Facilities and Operations (UNESCO, 2016, 15)

OBJECT	FEASIBLE METHODS FOR MODELLING CLIMATE ACTIONS
Biodiversity and Nature	<ul style="list-style-type: none"> -Planting trees, vegetables, fruits and flowers. -Planting trees which supply shadow for playing and external spaces, in addition, institution blocks.
Power	<ul style="list-style-type: none"> -Switch off all forms of lighting and devices when left. -Continuous inspection of equipment To ensure the quality of its work.
Rational Consumption	<ul style="list-style-type: none"> -Use local goods. -Purchase of goods made by local factories and farms where responsible work, health and safety practices are used.
Safety and Health	<ul style="list-style-type: none"> -Provide local, organic, and healthy food using the lowest possible packaging inside the institution cafeteria. -Maintenance of water basins and taps to encourage continuous washing of hands.
Waste and garbage	<ul style="list-style-type: none"> -Stimulate learners and officials to have zero-waste meals. -Placing recycling, organic waste and litter baskets in main places to motivate learners and officials to throw litter in the right position.
Transportation	<ul style="list-style-type: none"> -Motivate learners and officials to use transportation that is a model of sustainability. -Select locations of new institution blocks in regions that can be easily reached by transportation.
Water	<ul style="list-style-type: none"> -Lock taps when left. -Replacing the usual pavements with natural surface that absorbs rainwater during large storms. -Ensure that all chemicals are disposed of properly (not just by dumping them into the sewer).

Table 2 illustrates the vision of the UNESCO's Document on Climate Action to work with and confront the phenomenon of climate changes, by highlighting some necessary strategies for the facilities and processes.

Fourth: Strategies for partnerships with the local community

Effective partnerships with the local community for learning are a clear demonstration of serious and fruitful cooperation in the areas of dealing with climate change and reducing its effects, as there is much that the educational institution could do for reducing climate changes. Nevertheless, the institution alone cannot address many issues and needs to cooperate with outside contributors. So, the institution should consider establishing a partnership closely with local society.

There are also many strategies for community partnership that make it necessary, including (UNESCO, 2016, 16-17):

1. Improve student learning through links with the local community. The experiences a student gains from learning outside the classroom makes him relevant to the local community, and local contributors play a big role in determining the educational options that suit the classroom.
2. Use the educational institution's campus as a learning laboratory, by giving students the opportunity to look, establish and admire the systems which help the institution to be more climate-kindly. Such as, learners can watch food waste decompose in the compost of institution, play in the shadow of local grown trees, or lead visitors on guided tours that demonstrate the sustainability of the institution.
3. Take learning out of the classroom – Go out with students to the neighborhood right after school. Learners could measure biodiversity in natural areas, find out likes and

dislikes of society individuals about the region, or study and understand the existing landscape or urban landscape around the institution.

4. Arrange local field visits – Go out with the learners to watch locations like farms or fields, disasters supporting services, and facilities of water treatment or recycling of wastes. These trips allow learners to participate and witness real-world life in order to discover challenges and solutions related to climate change.
5. Give students the opportunity to learn by experiences - Learners could try the daily work of businesses and national foundations by participating in collaborative programs related to learning and society services.
6. Allow learners to take actions – Ask learners to make and implement work projects based on life needs in real-world defined by a team of local environment. Society individuals and Families may contribute in many different ways, such as resources, skills, and knowledge.

These contributors can also benefit the community itself, as the educational institution can serve as the hubs for society individuals to obtain information on climate changes, through workshops to publicize climate change, work with educational institutions and other community enterprises to design distinctive ventures, and organize tours on environmental sustainability and effective initiatives on climate action. In addition to organizing community-wide events, such as cleaning up bathing beaches, forests or neighborhoods, and sharing the story of climate action on radio, newspapers and social media, to publicize and raise awareness of climate changes.

Conclusion

The current research discussed the issue of climate changes awareness and the educational institution role in achieving that awareness in the light of the UNESCO's

document on climate action, by showing the concept of climate changes and their effects, and reviewing the most important characteristics and approaches of the inclusive educational institution to address climate change. The research also presented the most important mechanisms and strategies necessary to achieve climate changes awareness and confront it as stated in the UNESCO's document on climate action, and it reached the following results:

- The research found that awareness of the phenomenon of climate changes is one of the most necessary strategies that enable individuals to prepare to face this phenomenon and try to mitigate its effects on societies.
- The research confirmed that the educational institution has the largest role in achieving awareness of climate change, which works to enrich environmental knowledge and skills of rational dealing with the environment.
- The research concluded that effective partnership between the educational institution and the local community has a positive role in the preparation of climate action projects that clarify the relationship between social, environmental and economic issues.
- The research revealed that the educational institution, along with other educational institutions in the community, bears the greatest burden in the process of raising awareness of environmental phenomena, including climate change, and understanding the ecosystem.
- The research showed that the inclusion of issues related to climate change in school subjects enhances students' abilities and expands their perceptions towards issues related to this phenomenon, which contributes to improving their practices and dealings with the environment in its various elements.

Recommendations

After discussing and presenting the previous results, the research recommended the following:

- Enhance and facilitate the mass transition to alternative sources of energy, such as renewable and harm-free, which contribute to mitigating the dangerous effects of climate changes.
- Relying on the educational institution as a key factor in bringing about the required change in convictions and perceptions and nurturing intellectual trends that enable dealing with climate change.
- Holding community events inside and outside educational institutions, addressing issues related to life and community affairs, and enabling individuals to practice communication skills regarding these issues.
- Involving the local community with all members of the educational institution in the preparation of projects related to climate action, which works to exchange different experiences and integrate positive roles in dealing with climate change.
- Facilitating the transition of the educational institution from a theoretical manner to a realistic one, and participating in the implementation of some works that contribute to achieving awareness of climate change, such as afforestation, cleaning the external environment of the institution, optimal use of transportation, rational consumption of water and energy conservation.

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