Can We Talk About Climate Change: Towards a Transformative Model of Adult Climate Change Education

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ABSTRACT

This article examines the role of Climate Change Education for adults in Ireland through the lens of critical pedagogy and ecological Marxism. Drawing on the work of Antonio Gramsci (1971) and Paulo Freire (1970), it explores how climate education can move beyond individualistic approaches towards forms of learning that foster critical awareness and collective action. The study is based on qualitative research using semi-structured interviews with climate educators and activists involved in developing or delivering Climate Change Education for adults.

The findings suggest that dominant educational narratives frequently reproduce neoliberal assumptions by emphasising individual behaviour change rather than systemic causes of environmental degradation. However, participants also described emerging efforts to create dialogical learning spaces in which adults can critically examine the links between climate change, social inequality and political power.

The article argues that transformative climate education must engage with learners' lived experiences while encouraging critical reflection on the structural drivers of ecological crisis. By drawing on critical pedagogical traditions, adult Climate Change Education can move beyond information provision to support collective understanding, agency and action. In doing so, education can become a site for developing what Freire describes as a praxis of hope in response to the climate crisis.

1. Introduction

UNESCO describes education as vital to climate action, empowering people through knowledge and skills. Under the United Nations Framework Convention on Climate Change (UNFCCC) and Paris Agreement, governments must 'educate, empower, and engage all stakeholders' (UNESCO, 2025). In Ireland, Climate Change Education (CCE) is incorporated into Ireland's Education for Sustainable Development (ESD) to 2030 strategy (Government of Ireland, 2021). This describes education as a lifelong process that empowers people to situate their choices within wider national and global society. However, the Green Skills Programme launched by Solas in October 2024 focuses on equipping individuals with the skills necessary to secure employment in green transition industries. While these skills are needed, the scope of the Green Skills programme could be wider.

Positive developments have occurred around CCE in both primary and secondary education, but there is a need to provide adults with a deeper understanding of the origins of Climate Change (CC) and to encourage mitigation strategies beyond behaviour modification. People need access to CCE that empowers them to have agency in the climate debate and to allow them to make valid choices within their personal circumstances.

This research addresses the question: 'How can effective, relatable climate change education for adults be developed?' It examines how adult CCE in Ireland is currently framed and explores how critical pedagogical approaches may support more transformative methods of learning. Viewing CCE through a lens of Gramscian, Freirean, and eco-Marxist thought moves it beyond the transference of information about environmental problems. Together, these perspectives help explain how CC is connected to power, culture, economics, and inequality. They offer approaches that encourage critical thinking, participation and social action, which are important elements of participatory adult and community education.

Since the acknowledgement of CC, there has been a distinct link between the Industrial Revolution, increased carbon emissions, and our changing world. However, recent research highlights the connection between colonisation and CC, referencing both imperialist colonialism and ongoing ecological colonialism (Mercer & Simpson, 2023; Mahony & Endfield, 2018; Reibold, 2023). Regardless of the starting point, inequality is an inherent part of CC, with those producing the least emissions often suffering the worst consequences. Global policies, proposed since the inaugural COP in 1995, have failed to address this issue adequately.

The article begins by examining academic literature, reports, government publications and articles from Ireland, Europe and the rest of the world, which builds a picture of the climate

crisis, the policies that address this, and the educational response to CC. The future of CCE is explored using the theories of Gramsci, Freire, and eco-Marxism. Following the literature review, insight is given into the ontological and epistemological approach of social constructionism which informed my research. The qualitative method of semi-structured interviews is described and an explanation given as to why this was the best approach to answer the research question. The findings are presented through the various themes that emerged from participants' interviews, and these are analysed and discussed using the theories set out in the literature review.

2. Literature

This literature review situates climate change within its wider political, economic, and educational context. It explores the realities of the climate crisis, political responses in Ireland and beyond, and the influence of economic structures on climate policy and education. Drawing on critical perspectives, including ecological Marxism, Gramsci and Freire, it examines the relationship between climate change, capitalism, and education. Finally, it examines the potential of adult CCE to support critical engagement with climate issues and broader societal change.

2.1 Climate change politics

The impacts of CC are being felt around the globe with polar regions heating up over two times as fast as the global average. As the Arctic permafrost melts, it turns from a carbon sink into a carbon emitter. Marine heatwaves have increased, causing coral reefs to bleach and having a devastating effect on marine life, which in turn impacts coastal communities and ecosystems. Agricultural productivity has fallen by 34% in Africa and Asia is experiencing increased floods and droughts. Communities that hold the least responsibility for CC are often the most affected by its consequences (United Nations - Climate Action, 2022). In Ireland, the EPA has identified 115 climate risks including forty-three that will have a significant impact at national level including coastal flooding, erosion, extreme winds, floods, and excessive heat (Environmental Protection Agency, 2025).

Ireland's legally binding Paris Agreement targets to reduce greenhouse gas emissions by 51% by 2030 and to reach net zero by 2050 will not be met on the current trajectory (Slevin & Barry, 2024). The latest Environmental Protection Agency (EPA) projections show that Ireland will achieve less than half the necessary reduction if all additional measures currently under discussion are implemented (Lee, 2026). In response to this report Darragh O'Brien, the Minister for Climate stated that meeting the 2030 targets will be difficult but economic

growth has been uncoupled from emissions and when sales of EVs are included Ireland will meet the targets in the early 2030s.

The current coalition's programme for government was criticised by environmental groups and NGOs because of its lack of action on CC and the focus on roads, which is a retrograde step that will only lead to an increase in emissions. Information around funding for nature for farmers is vague and the commitment to making a case with the EU to retain nitrates derogation which allows farmers to exceed the limits set down in the Nitrates Regulation is a huge issue considering water quality in Ireland (McDonnell, 2025). In Europe, commitment to reaching climate targets is weakening amid claims that climate policy has gone too far or is too costly (Jansen & Jager, 2025). The EU was previously a leader in the green transition, but it is now watering down climate change policies driven by a backlash from far-right groups that has filtered through the political spectrum (Jones & Youngs, 2025).

The 2030 Agenda for Sustainable Development purports to protect nature, but only while driving economic growth (UN, 2015). Irish neoliberal, growth-oriented policies have had a minimal effect on overall emissions and progressive policies have focused on reducing demand rather than curbing supply (Slevin & Barry, 2024). Worryingly, a study commissioned by the EPA, found that although most Irish people were aware of CC only 34% of the population sees CC as an actual, pressing threat (Marlon, et al., 2023).

2.2 Climate change education provision

According to the UNFCCC, public awareness of CC must be raised through education and access to information (UN, 2020). The annual Sustainable Development Report indicates significant challenges persist in quality education in Ireland (Sachs, Lafortune, & Fuller, 2024). Resources and programmes are available to schools under the School Sector Climate Action Mandate (Department of Education, 2024). No such plan exists for the Adult, Community and Further Education sector.

The 2021 Consultation Paper on Ireland's Education for Sustainable Development Strategy to 2030 described ESD as empowering people to create a sustainable future. ESD is a lifelong learning process that enables individuals to understand the world and situate themselves and their actions within the broader context of society (Government of Ireland, 2021). Positive progress is acknowledged in ESD at primary, secondary and third level, but no progress is indicated for Further Education (Government of Ireland, 2021). However, in the published Second National Strategy on Education for Sustainable Development an increase in ESD programmes in FET is reported (Government of Ireland, 2022). It appears our government is inconsistent about the implementation of ESD in the Further Education Sector.

Solas launched the Green Skills programme in October 2024. It acknowledges humans negatively impact the environment and highlights the vital role FET plays in responding to CC (Solas, 2024). This programme was developed in partnership with accounting organisation KPMG, whose remit is business expansion (KPMG, 2025). The strategy aims to produce skilled workers for green transition industries (Solas, 2024).

A review of FETCH.ie, the Further Education and Training Course Hub produced a list of seventy climate change courses offered across ETBs. Most courses are centred on individual behaviour changes to increase sustainability in businesses and at home. Approximately fifteen courses recognise CC should be tackled by more than individual actions.

The language around adult and further education has changed since the turn of the century. Learning for Life: A White Paper on Adult Education incorporates the principles of lifelong learning and addresses social justice issues (Department of Education and Science, 2000). It inferred education could become a tool in the fight against social inequalities. In the Further Education and Training Strategy (Solas, 2014) the term "adult education" had been replaced with "Further Education and Training" (FET). Lifelong learning morphed into skills, with employers' needs central to policy formation (Shannon, 2019).

CCE requires a systems approach, but current educational policy does not support this methodology (Mochizuki & Bryan, 2015). The Education for Sustainable Development Strategy to 2030 recognises fostering a culture of sustainability will challenge existing cultural norms. The strategy refers to the nurturing of learners' critical capacity, but no clear pathway has been mapped out for this to occur (Government of Ireland, 2022). As it is integrated into all strata of society, the education system can influence social norms and systemic values, making it a perfect setting for transformative CCE (Nusche, Fuster Rabella, & Lauterbach, 2024).

CCE in Ireland has largely centred on scientific processes and individual behavioural change (Waldron, Mallon, Barry, Sainz, & Gabriela, 2020). This does not challenge the political or social status quo on what António Guterres described as the most pressing issue of our time (Security Council, 2021). Inroads have been made into delivering CCE through Global Citizenship initiatives in primary and post-primary schools (Waldron, Mallon, Barry, Sainz, & Gabriela, 2020). Still, there is no mandatory requirement to embed GCE in the curriculum.

Antonio Gramsci used the term hegemony to argue that the ruling classes in civil society maintain power by controlling cultural institutions, thereby shaping cultural norms so they appear natural to society (Osanloo, 2023). He believed the relationships between classes and between the state and civil society were characterised by consent rather than coercion (Gill & Law, 1993).

Viewing CCE in Ireland through a hegemonic lens shows how education is used as a tool to serve the elite groups that retain wealth and power. By only allowing access to science-based, individually focused CCE, the knowledge available to everyone is restricted. Those at the top of the capitalist system, allied with the state, lead the public to believe they need to change their behaviours. Limited education prevents people from investigating wider social and economic structures and questioning who the current system benefits (Mayo, 2014).

Hegemony is not static and is constantly open to renegotiation, regeneration, and reformation, leaving space for counter-hegemony (Mayo, 2008). Through counter-hegemonic practices, educational institutions become spaces for active, critical involvement in society (Gramsci, 1971). Organic intellectuals, who emerge from the working class, can change how power structures are viewed by instilling critical consciousness (Osanloo, 2023). This indicates the potential of a critical pedagogy in contributing to an educational approach that is geared towards collective understanding, agency and action.

2.3 Individual action vs systems change in CCE

Current CCE programmes are rooted in the science behind CC and adopting technological solutions to offset carbon usage. What draws less attention is the correlation between capitalism and CC (Clark & York, 2005). Understanding current CCE means examining the economic structures underpinning Irish society. Educational programmes do not operate in a vacuum but are often influenced by prevailing assumptions about economic growth and market-based solutions (Hursh, Henderson, & Greenwood, 2015). Since the late twentieth century, Irish economic policy has prioritised growth, competitiveness, and foreign direct investment. shaping patterns of production, consumption, and environmental governance (O'Riain, 2014).

Cultural understandings of CC, shaped by production and consumption systems, can impede climate responses as people dismiss ideas challenging their behaviours (Price, Walker, & Boschetti, 2014). A workable solution to CC must radically reduce the extraction, processing, and consumption of the Earth's natural resources. However, capitalism, as it currently exists, is incapable of regulating itself, curtailing unsustainable growth and halting CC (Park, 2015).

Instead of focusing on small, behavioural changes, the emphasis must be on adapting ways of thinking (Nusche, Fuster Rabella, & Lauterbach, 2024). Debate surrounds individual versus collective action, but the two are not mutually exclusive. Either/or thinking may be counterproductive as it can cause divisions between groups when working together could produce better outcomes. Effective strategies should target both approaches as it may be hard to enact systems changes without public participation. (Brownstein, Kelly, & Madva, 2022).

The breadth of CC issues necessitates a multidisciplinary approach across all levels and structures of society, from collaborative policymaking to community groups working on local initiatives (Ardoin & Bowers, 2025). It may be hard for social movements to flourish and collective action to be fostered in an educational system controlled by capitalism, where education reproduces class structures and primarily prepares learners for future employment (Bowles & Gintis, 2002).

2.4 Towards an alternative approach – Ecological Marxism

Althusser (1971) posits capitalism is reproduced through education because it indoctrinates learners in the dominant ideology and norms. Educational success in capitalist societies is usually framed in terms of personal effort, disregarding and obscuring structural inequalities and unequal access to quality education, while reinforcing neoliberal ideas of self-reliance and the notion hard work is all that is needed to succeed (Harford, Fleming, & Hyland, 2024). While the concept of justice in CCE has increased in recent years, it remains rare. For education to be effective, CC must be understood as multi-faceted and linked to injustice (Trott, et al., 2023).

Eco-Marxists propose a shift away from destructive capitalist systems, which they view as the primary cause of environmental devastation (Foster, York, & Clark, 2010). Capitalists must constantly accumulate resources, which leads to the idea industry can continue drawing from inexhaustible sources while polluting sinks at an increasingly unsustainable rate. In this system, profits are held privately, while the costs are borne by society and offset by nature (Saed, 2019). Eco-Marxist analyses suggest that perceptions of limited capacity to effect change within capitalist systems can contribute to forms of environmental alienation.

Foster, York, & Clark (2010) use the term Ecological Rift to describe the paradox of wealth, where individuals in capitalist nations get richer while societies get poorer. This is based on Marx's (1991) idea of the Metabolic Rift. In the pursuit of more, the capitalist system puts pressure on ecological systems, creating a metabolic rift. The concept of metabolic rift originates in his analysis of the disruption of the relationship between humans and nature under capitalism. Marx argued that capitalist production separates people from the natural systems upon which they depend, breaking the cyclical exchange between society and the environment. Foster, York, and Clark (2010) extend this argument suggesting that capitalism creates wider and increasingly unsustainable ruptures between economic activity and ecological limits. The pursuit of continual growth requires ever-increasing extraction of resources and production of waste, while environmental costs are externalised onto communities and ecosystems.

These concepts are useful for understanding climate change because they move beyond explanations based on individual behaviour and instead locate environmental degradation within broader economic structures. They therefore provide a foundation for educational approaches that encourage learners to critically examine the relationship between climate change, economic systems, and social inequality.

2.5 The future of adult climate change education

Implementing changes in knowledge, skills and behaviour in institutions, educators, and learners requires a response encompassing all levels of learning (Mochizuki & Bryan, 2015).

Walters (2018), states lifelong learning approaches to CCE are vital as the catastrophes brought about by rising temperatures will affect every age group. Lifelong learning encompasses many forms of learning, allowing adults to play an active role in society (UNESCO, 2022). CCE for adults must draw on learners' knowledge and be relatable (Arndt & LaDue, 2008).

Paulo Freire's (1970) seminal work, Pedagogy of the Oppressed, highlights the role of education in social justice and liberation. He proposed the banking method in traditional education, where learners are empty receptacles waiting to be filled with knowledge. Freire advocated for a dialogical model where knowledge is co-created through the critical reflection of both teachers and learners. Education as a participatory, democratic process can address systemic injustice. This is vital for transformative CCE, where the ideas and experiences of community members and learners are valued and incorporated into a curriculum built around climate justice.

3. Methodology

This research was grounded in social constructionism and critical theory. The real effects of CC cannot be denied, but how an individual interprets the cause of wildfires or flooding events may be linked to the reality created by the social structures in which they are embedded. Narratives around CC causes and responsibilities are constructed at international, national, and local levels (Donnelly, 2008; Eckersley, 2013; Scoville-Simonds, 2018; Stehr & von Storch, 1995). Scientific and technological models may construct a narrow view of the problems as they are one dimensional (Kirby & O'Mahony, 2017).

Critical theory questions the structures of power and examines the workings of global capitalism and the concept of late capitalism (Garlitz & Zompetti, 2023). Critical reflection is a principal tenet of adult education, meaning the discipline is perfectly positioned to adopt transformative CCE based on more than scientific principles.

3.1 Participants and sampling

There were seven participants in the research, five female and one male. Pseudonyms were employed to protect anonymity. Yolanda is a professor of Sociology, Ana and Han are professors in International Development. Leia, Rey, Padi and Mandy all work in Adult and Community Education settings. They were recruited using professional networks and referrals. All participation was voluntary.

3.2 Data collection

The primary method employed to gather data for the research was semi-structured interviews. Three of these were conducted over Teams and four were in person. The shortest interview lasted just twenty minutes, while the longest went on for an hour. On average, the other interviews were approximately forty minutes. Questions centred on current CCE provision, the values underpinning it, what is working, and what effective CCE could look like. These were developed to illicit responses that would add the most value to my research and were given to the participants in advance, to allow them time to develop more nuanced responses. However, the interviews rarely stuck to the questions in a linear manner. They had a more conversational tone, and I allowed participants to speak freely and connect topics as they saw fit. This made it harder when I had to group themes, as the topics were not clearly defined in a straightforward way. Interviews were recorded, transcribed, and reviewed for accuracy.

3.3 Data analysis

Data were analysed using a deductive thematic analysis approach (Braun & Clarke, 2006). Interview transcripts were printed and manually coded using colour-coded highlighting to identify data relevant to each theme. Responses were then grouped according to content, generating a series of subthemes within each category. The findings were subsequently interpreted in relation to the literature reviewed and the study's theoretical framework.

Four initial themes were derived from the research questions: understanding CC, values being promoted by current CCE, what is not working or poses a challenge, what is working now and the future of CCE. Values being promoted was broken down into two subthemes: scientific models and individualisation and putting the economy before the environment. What is not working had the subthemes of scientific/individualist approach; inaccessibility, exclusion and intersectionality and focus on skills. What is working and the future of CCE spawned the subthemes not a one size fits all solution, reframing CCE and institutional change.

3.4 Ethics and reflexivity

The use of qualitative research methods discloses context and supports a more comprehensive perspective on the participants' views. This type of research opens the door to researcher bias, as interviews are co-created by the questions posed and the responses offered (Lim, 2024). I adopted a critically reflexive approach to the research to limit my influence on the answers given. Distancing myself from the research was difficult, as people attuned to CC are generally passionate about the subject and many of the interviewees were involved in adult education. We had shared experiences and perceptions of CCE and what is happening in the space. When reviewing the interviews, I drew only from the participants' answers and observations to inform my findings.

The directors of Maynooth University's MEd Adult & Community Education programme granted ethical approval. While CC and CCE are not sensitive topics in and of themselves, many of my participants are employed in Irish educational institutions. Therefore, it was necessary to protect the participants' identities by using pseudonyms and removing any identifying features. Before participating in the interviews, each person was sent an information and consent form sheet that outlined the nature of the research. The participants were advised that they could withdraw their consent at any time and any data collected be destroyed.

4. Findings

Four main themes emerged from the interviews, reflecting participants' perspectives on the current state of CCE in Ireland and its future development. These themes explored participants' understandings of climate change, the values underpinning current educational provision, the challenges facing CCE, and the possibilities for more transformative approaches. Within some themes, several subthemes were identified that captured recurring ideas across the interviews. Together, these findings provide insight into how climate change is currently framed within adult education and how alternative approaches may be developed.

4.1 Understanding climate change

The first theme explored participants' understandings of climate change and the factors they perceived to be driving the crisis. While participants shared concerns about the environmental and social impacts of climate change, their responses extended beyond scientific explanations to consider issues of power, inequality, and economic structures. This theme highlights the diverse ways in which participants interpreted climate change and the implications these understandings have for CCE.

Some participants spoke about how CC is perceived and its relation to capitalism. Yolande had strong views on the subject and felt that perception is *"connected to the structures of power and the structures of profiteering and consumption that are at the heart of climate change."*

Leia noted that *"Climate change is a really key issue for local people, something they're genuinely worried about."* While Han referred to extreme weather events that confirm climate change is real, Padi believed catastrophic weather events around the world and increased flooding in Ireland made CC a widespread reality. Anxiety can lead some to disengage, Padi stated that *"the amount of people that say I can't turn on the news, I can't look at the news. It's just too much."*

Yolande spoke about misconceptions of CC: *"They talk about climate change as if there was some kind of great mysterious thing that we didn't know about."* Participants were also disturbed by the way the narrative is skewed, so people only hear what those in control want them to hear. Padi pointed to consumerist society as a driver of CC. Other participants noted misinformation driven by unreliable online sources.

According to Yolande, Capitalism is ingrained in our psyche because *"of the internalisation of the modes of capitalism, where it becomes part of your consciousness, becomes part of your DNA."* Our modes of participation in society are defined for us; we should be at work, producing goods and services, so we can acquire money for things we may not need. She stated: *"You don't set up the norms of participation in society yourself. You can, but then you would need to be outside of it."*

For Yolande, the whole CC debate is anthropocentric and focused on how it will hurt humans. The potential harm to the Earth or other species is not considered. People are socialised to think they are entitled to take from the natural world, a complex concept to challenge. Nevertheless, despite the ethics of capitalism being competition and competition being seen as a virtue, she remains hopeful: *"You know, you start something small. You start at some of the truths that are taken to be truths now."*

4.2 Values being promoted by current climate change education

Participants identified several values embedded within current CCE provision. While most acknowledged the importance of scientific knowledge and environmental awareness, they questioned the assumptions underpinning many programmes. Two interconnected subthemes emerged: the individualisation of climate responsibility and the prioritisation of economic growth and labour market needs over climate justice and systemic change.

Scientific Models and Individualisation of Climate Change

Most participants agreed much of the current CCE in Ireland is based on individualisation. Ana pointed out: *"There's an individualisation of practice around certain stuff."* CC is framed as a problem caused by individual behaviour, which can be solved through individuals' actions, such as recycling, using less energy, switching to electric cars, or eating less meat.

Padi noted that courses around sustainability are *"about personal responsibility and a little bit about community. But more about personal responsibility."* Individual responsibility is only a small part of the overall picture. Yolande stated *"I'm not saying we're not individually responsible. Of course, we are, but we play a very small part in the game… but I'm talking about possessive individualism."* Rey framed it as *"that narrative of individuals causing climate change, I think, even though we do all contribute in some way, it's like it's being exploited."* The responsibility for CC mitigation has shifted from structural systems, governments, and large corporations to individuals.

Consumer-based solutions can prove disempowering for people who cannot afford to purchase organic food, electric cars, or home energy upgrades. This is counterproductive, as Rey said *"it's really important that people are empowered to take action but empowering them to take a form of action that they realise will not actually make any change is …. very disempowering."* People may also feel they are being unfairly burdened with causing CC when individual pollution is relatively small. This can leave people disillusioned, as Leia put it, *"One is you're selling people a cod. So, you and I turning off our light bulbs all the time is important. But it doesn't matter a bit if the other bigger pieces aren't fixed."*

Putting the Economy Before the Environment

Solas and ETB Ireland's CCE remit appears to centre on upskilling and training people to work in green transition industries. Leia stated *"FET is so focused on green skills for the green economy, which is absolutely needed and… FET is the place for that. But there is no need to only do that."* Rey argued that the focus is on *"pro-economic solutions."* These courses fulfil obligations set out under EU policies and Padi felt this offered a *"tick the box exercise,"* rather than something that will create real change.

4.3 What is not working or poses a challenge?

Participants highlighted a range of challenges that limit the effectiveness of current CCE. Although concerns varied, they consistently highlighted the narrow framing of climate issues, barriers to participation and the growing emphasis on skills and certification. Three subthemes emerged from the data: the dominance of scientific and individualistic approaches,

issues of accessibility and exclusion, and the prioritisation of skills development over critical climate literacy.

Scientific / Individualistic Approach

Rey spent time working abroad with communities adversely affected by CC. On returning to Ireland, they stated "*The first problem that I saw with climate change education in Ireland was that it was way too scientific.*" They felt this kind of approach adopts a narrow, individualistic view of CC. Rey suggested that if people could recognise capitalism as the leading cause of CC, they would understand why *"Some solutions are not really solutions."*

When the Introduction to Climate Justice Education in Practice Tutor Handbook[1] and later the Level 3 course were being designed, Leia said a conscious decision was made *"Not to go down the route of individual, consumer-based solutions."* This was because these solutions may be financially unobtainable to many people. Anything that does not tap into the power people do have is counterproductive.

Inaccessibility, Exclusion, and Intersectionality

Several participants declared CCE inaccessible to specific sectors of the population which acts as a tool for exclusion. CC policies are inadequate and this is reflected in the education system.

Han pointed out the structural issues of CC cannot be addressed if we have inequality between and within nations. This type of inequality is perpetuated under the current models of CCE. If people feel excluded, they are more likely to align themselves with climate deniers or position themselves adjacent to this. The language used around CC can be exclusionary when it comes to participation in education. The presumption of certain levels of scientific and numerical literacy unintentionally excludes people from disadvantaged communities. Using the term 'climate change' can also discourage people from getting involved. CCE is siloed in and within universities and treated as a side issue. It requires a multidisciplinary approach across various disciplines.

Focus on Skills and Certificates

Leia remarked that 17-year-olds in second level education are not taught to turn off the lights but are informed of the global causes and consequences of CC. It is tackled in Higher Education, but Leia felt sometimes *"there's a shirking of responsibilities"* by FET and *"a purposeful forgetting that we are the public education system for NFQ levels one to six"*. Rather than systems-based thinking, there is exceptionally narrow, siloed thinking. The Green

[1] In 2019 City of Dublin ETB Adult Education Service developed the Climate Justice Education in Practice Tutor Handbook which is designed to be used as a stand-alone resource or incorporated into any module to build climate literacy.

Skills programme makes no mention of climate literacy or climate justice education, despite climate justice being one of the key strands under the Social Inclusion and Community Activation Programme (SICAP).

Padi used slightly different language to express the lack of movement at policy level stating that changing your dish soap when there is no political movement means *"you're pissing in the wind."* Some participants felt many ETBs are driven by certification. However, Padi believed that students who get involved in CCE are *"not really looking for certs… they want to do something good and practical to change their lives. They want to do something good in their community."* These students are often retired, long-term unemployed, on CE schemes, or individuals already involved in projects like Tidy Towns. Sometimes they just want to talk and discuss their climate anxiety.

Institutions have done little to reduce emissions and become more environmentally friendly, yet learners are being taught to think critically about energy use. They can feel like the ETB is just paying lip service to climate issues. Only a limited number of ETBs has hired a few climate professionals, specifically those related to their building's portfolio.

Participants highlighted the exclusion of marginalised groups, as Leia said, *"there's massive exclusion happening of disadvantaged communities."* Even for community based environmental movements, *"there is a presumption that everybody in the room (has) university standard education… which is higher than I knew we would encounter in adult education."* There is a lack of coherent policy and the focus is on skills in FET. This concentration on economic function over climate justice reflects the prioritisation of productivity over critical engagement and uncensored participation.

4.4 What is working now and the future of effective CCE

Despite identifying significant challenges, participants also pointed to examples of promising practice and opportunities for future development. They described emerging approaches that seek to make CCE more inclusive, participatory, and responsive to community needs.

Even with the challenges facing CCE, things appear to be shifting slightly towards a more integrated approach to the subject. This is reflected in the development of the tutor handbook on Climate Justice Education and Practice. Both the City of Dublin ETB and Cork ETB are supporting courses on climate justice. In some areas, CCE has evolved from community craft courses into more structured programmes. This can create the opportunity to engage in dialogue about CC, leading to a deeper understanding of the issues. As Padi said, *"conversations are great to have in those classes where people say nothing's going to change, everything does change, and change happens faster than you think."*

Within individualism, there are areas where a difference can be made. Saving money by reducing food waste is empowering for people living on a budget. Further development of the Introduction to Climate Justice Handbook is underway which will include a new chapter on Biodiversity.

The discussion of future possibilities centred on three interconnected areas: recognising that no single approach will suit all learners, reframing CCE through a climate justice lens, and supporting institutional change.

Not a one size fits all solution

Several participants acknowledge the community's needs must be considered. Mandy was adamant that *"It's about meeting people where they are at and giving them access to CCE that builds on their existing knowledge and helps them to make more sustainable choices."*

Building people's critical literacy skills is a crucial step in allowing them to develop a voice and participate in the climate debate. There is also a need to consider where tutors are coming from and the extent of their knowledge. A tutor's background may influence their approaches and delivery methods.

Reframing Climate Change Education

Participants held that CCE needs to be more intersectional. Ana underlined this belief by saying, *"If we see everything as connected and relational, and everything is political, then you can start to see and understand the complexities of things, but also, people get power to change."* As Yolande stated, *"in relation to Justice, the world is entirely interconnected."*

A variety of short and long courses could create pathways to further education and embed CCE across everything from gardening to heritage. Tutors need to be supported in this because as Leia pointed out *"the motivation is high, but the resources are often low."*

Participants believed community action could enable people to get involved in something that benefits their local area. Han proposed we could start framing it as community resilience, and Padi argued that it can be achieved through project-driven, community-driven education. Some felt space could be provided for people to process their emotions around CC. Initiatives like community gardens and kitchens can help address the causes of CC and bring joy into people's lives. Leia stated we can *"develop active hope, a kind of Freirean hope, as in critical as consciousness."*

Institutional Change

According to Leia, curriculum change and development need to be driven at a national level between ETBI and Solas. Each ETB requires leadership similar to Higher Education, with a

director level role driving CC responses. Padi felt that *"Centres themselves need to buy into the environmental sustainability message when they're teaching the courses."* Otherwise, learners may feel a disconnect between what is being taught and what is being practised.

Participants noted a move towards incorporating aspects of climate justice into CCE in specific settings is underway. Most participants called for learner-centred, intersectional, critical, and emotionally engaged adult CCE. This would provide learners with access to CCE that draws on ideas of climate justice and acknowledges CC as a social issue presents them with the opportunity to critically engage with the world.

5. Discussion

Several key ideas emerged from the findings that illuminate both the limitations of current CCE provision and the possibilities for its transformation. Participants consistently identified tensions between individualised approaches to climate action and broader structural understandings of climate change. The findings also point towards the need for a reframing of adult education that is more critically engaged with issues of power, inequality, participation, and climate justice.

5.1 Hegemonic domination in CCE

The participants' reflections align with the eco-Marxist theory that CC is a problem rooted in capitalist modes of production, which prioritise unending growth, personal accumulation, and the commodification of nature over ecological welfare. Yolande speaking of *"structures of power, profiteering and consumption"* links directly to Foster, York, & Clark (2010) arguing that capitalism is unable to address CC because it depends on ever-increasing extraction and consumption of resources. The disconnect between production and environmental protection, which Marx referred to as the metabolic rift and Foster, York, and Clark (2010) referred to as the ecological rift, is central to the design of capitalist economies.

Participants suggested learners are indoctrinated into the belief that individual behaviour modification will mitigate CC. People are made to feel an overbearing sense of responsibility for causing CC, while the economic system producing environmental harm remains largely unchallenged.

The recognition of corporate control of media, leading to misinformation and skewed public discourse, aligns with Gramsci's cultural hegemony. When Gramsci (1971, p. 80) was writing, there was no internet, but he reflected 'force will appear to be based on the consent of the majority, expressed by the so-called organs of public opinion'. Gramsci's (1971) hegemonic theory enables us to comprehend how the current educational model perpetuates dominant

views and obscures the actual cause of climate change. The exclusionary language of CCE, as described by participants, is reinforced through scientific and technocratic jargon. This may act as a gatekeeping mechanism, creating a stratification in access to knowledge, reflecting cultural hegemony. Assuming learners already possess a certain level of climate literacy suggests the dismissal of working-class, community knowledge, through cultural invasion. The lack of climate justice education at QQI Levels 1 – 6 exemplifies how structural inequalities in access to transformative learning are embedded in the system.

Participants described a general understanding of CC among their learners, often driven by lived experience. However, being unable to afford the proposed green solutions, led to a sense of powerlessness, which kept them from engaging with CCE. From an eco-Marxist perspective, this could be seen as a type of alienation fuelled by the perceived inability to change the overarching systems of capitalism (Foster, York, & Clark, 2010).

5.2 A reframed Adult Education response

The findings call for educational practices that incorporate Freirean pedagogy, which emphasises learner-centred, dialogical, and critical literacy, providing a counterpoint to current individualised models of CCE. Transformative, justice-orientated, community-based education provides space for counter-hegemony and the possible emergence of organic intellectuals. These approaches align with eco-Marxist critiques that advocate for systems change.

Freirean pedagogy offers more than a critique of traditional educational approaches; it provides a practical framework for developing transformative CCE. Rather than treating learners as passive recipients of expert knowledge, a dialogical approach recognises adults as knowledgeable participants whose experiences are a valuable source of learning. This reflects participants' repeated calls for CCE that is relatable, community-based and grounded in people's lived realities. Creating opportunities for dialogue allows learners to critically examine the causes of climate change and consider how social, political, and economic systems shape environmental outcomes.

Participants acknowledged that individual actions can be meaningful, particularly when they improve quality of life, reduce waste or encourage engagement with climate issues. However, they also recognised the limitations of approaches that place responsibility solely on individuals while ignoring structural drivers of environmental degradation. Participants expressed particular concern about climate responses that are presented as solutions but remain inaccessible, unaffordable, or unlikely to create meaningful change. Adult CCE can therefore help learners critically evaluate proposed responses to climate change and

understand how personal choices, community initiatives and political action are interconnected.

Many participants described the value of community-based projects, climate justice initiatives, and local action groups as spaces where critical consciousness can develop. Such spaces encourage learners to move from awareness of climate issues towards collective forms of participation and action. From a Gramscian perspective, these initiatives may contribute to counter-hegemonic practices by challenging dominant assumptions about climate responsibility and creating opportunities for alternative understandings of social and environmental change. In this way, CCE for adults becomes not only a means of understanding climate change but also a potential catalyst for democratic participation and social transformation.

6. Conclusion

The participants in this research have co-created findings highlighting significant tension within Ireland's current iteration of adult CCE. While some community and educational initiatives are beginning to adopt critical, climate justice-oriented approaches, the dominant model remains rooted in science-based, individualised, skills-focused, depoliticised content. Participants identified the limits of this framework, noting how it disempowers learners and excludes marginalised voices. In contrast, emerging practices rooted in Freirean pedagogy, which emphasises dialogue, learner-centredness, and critical literacy, offer a counter-hegemonic alternative that supports the development of climate justice education.

These practices echo eco-Marxist critiques, underscoring the need for systemic change rather than behavioural adaptation. The call for an inclusive, intersectional, and relational approach to climate education reinforces the need to reimagine adult learning spaces as transformative, participatory, and politically conscious. Truly effective adult CCE must move beyond knowledge transmission toward fostering collective action, critical awareness, and structural critique.

This research adds to the field of adult education by integrating critical pedagogies and Ecological Marxism in a uniquely Irish context. It highlights the structural limitations of current CCE provision while offering a practical framework for transformative, justice-orientated climate education.

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