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Gesturing not acting: Searching for policy guidance for Australian climate educators

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Australia has no national approach to climate change education, neither for primary, secondary, or tertiary education nor for the informal and community adult education sectors. Inaction has its roots in Australian politics reluctant to engage with scientific evidence or community experience of extreme weather events and hamstrung by the political interference of carbon dealing mega-corporations cashing in on a profit-making bonanza. Adult educators have a substantial role to play in addressing the climate crisis and there is value in considering the international sphere for policy guidance. We conducted a descriptive, desktop content analysis of documents produced under the auspices of the United Nations from 2010 to 2022 searching for future-focussed statements on climate justice education policy. International frameworks and conventions hold concrete possibilities for imaging transformative practices. There are increasing levels of detail in frameworks supportive of climate change education internationally, and Australia is a signatory. Our work contributes towards the argument that Australia needs to develop national and

state policy settings for climate justice education in line with United Nations settings.

***Keywords**: climate justice, adult educators, climate change education policy, Australia, United Nations, UNESCO*

Climate worry in the Australian context

Australia as a nation is not doing well in terms of enacting a national approach to climate change education, neither for primary, secondary or tertiary education nor for the informal and community adult education sectors. In the third decade of the twenty-first century, promoting adult learning for this existential crisis is urgent. According to the Bureau of Meteorology (BOM, 2022) Australia's climate has warmed by an average of 1.47 ± 0.24 °C since national records began in 1910. People and ecosystems are experiencing an acceleration of extreme weather events, and a significant majority of Australian adults are frustrated by decades of inaction on the part of local, state and Federal governments.

About 80% of adults surveyed in 2020, stated they desired greater climate action by State and Federal governments, including the phasing out of coal fired power stations and decreasing reliance on fossil gas (see Colvin 2020; Quick & Bennet 2020). Similar desires were expressed in Griffith University's Climate Action Survey (Bradley et al. 2022) that showed 77% of Australian adults accepted the reality of climate change and only 2% could be categorised as deniers. A further 16% of adults were identified as unconvinced or complacent, and 5% were sceptical. Unsurprisingly, women reported greater levels of concern than men and higher levels of climate knowledge, concern and action were reported by adults under 35 years of age.

The cascading faults for inaction lie within Australian politics deliberately divorced from scientific understandings, and subject to interference from the carbon dealing mega-corporations cashing in on the biggest profit-making bonanza in history. Australian taxpayers contribute to the destabilisation of the global atmosphere through annual subsidies to fossil fuel industries - an estimated 11.6 billion dollars in the 2021-2022 financial year (Armistead et al. 2022. There

are no concrete plans to cease this economic behaviour (Denniss 2022), although the Australian Climate Council's Power Up roadmap (Dean et al. 2022) states that ending taxpayer subsidies would be a "game-changer" for the nation. While billions of dollars are spent accelerating carbon pollution, Australia does not invest highly in education. According to Federal budget analysis (Ferguson and Harrington, 2020), slightly less than 2 per cent of Gross National Product is expended on education and training across all sectors. Very few monies are spent on climate education, biodiversity education or education for sustainability in any compulsory educational sector, let alone supporting formal tertiary, informal or community adult education. The Climate Action Survey data (Bradley et al. 2022), suggest the need for "further targeted interventions to improve communication and engagement of Australians in climate action" (p. 28).

Gesturing towards national policy

Policy is an important leverage point for promoting all forms of climate communication and education (McKenzie & Benevot, 2022). Unfortunately, there is no coherent, national policy or legislation, associated funding or implementation plans to support climate change education for young people or adults in Australia (see Gough 2020, Colliver 2017, Purves 2022, Reid et al. 2021, White et al. 2021, Whitehouse 2022). This domestic policy absence has implications for all educators wishing to foster greater knowledge of and action for the climate crisis. There is recognition that this absence must be addressed, and there are moves afoot in a few states – in Australia, states have carriage of the compulsory education sector. Leading the way is the June 2022 Report of the Education and Health Standing Committee of the Legislative Assembly of Western Australia titled *Making Hope Practical*: *Report of the inquiry into the response of Western Australian schools to climate change* (Western Australia Parliament 2022).

This Report makes 24 research-based recommendations, mainly focused on schools, though two are directly related to adult education in the form of teacher education. These are: Recommendation 23, "that the Minister for Education and Training dedicates funding to provide quality professional development opportunities for teachers in relation to sustainability and climate change" and Recommendation 24 "that the Minister for Education and Training advocates at a national

level, through the Education Ministers Meeting, for incorporating competencies for sustainability and climate change in national teaching standards". Teacher education is positioned as a key leverage point for climate education, and schools are vital infrastructures for education for sustainability and for progressing carbon reduction strategies and energy transformation. The question is, will these types of recommendations manifest as education policy and practice with the speed required? It would be helpful to have the Western Australian recommendations (or similar) adopted and acted upon (quickly) by all Australian States and Territories.

The double-problem for climate educators looking to align their practice with policy is the current domestic policy vacuum and the matter of how existing policy settings are becoming increasingly unfit for purpose. The material and conceptual destabilisation of the climate crisis presents emergent difficulties for effective and responsive policy making. Policies that look backwards to a Holocene climate may be quite unsuited to our experience of a disrupted Earth system. Inherent assumptions of stability are proving false. What was stable is no longer. Baer et al. (2022) argue for a "cold eyed analysis" of present reality, because "a dangerous deficit of interest, budgets, programming and imagination" has left so many in contemporary societies vulnerable and struggling. Accelerating climate disruptions, "ultimately affect all aspects of policy … from how we govern ourselves to where we can safely exist".

Addressing an existential emergency is, admittedly, daunting. This will affect all aspects of social policy especially educational policy where the known certainties of educational structures are under threat. As Verlie and Flynn (2022) argue in their work, the climate crisis is an existential crisis of and for education. Effective policy frameworks can no longer be located within a world that used to exist. Any reading of the scientific literature indicates that constant disruption will be normal for the rest of this century. Baer et al. (2022) advise that "we need to question assumptions against a future that we have yet to understand and struggle to even imagine" (n.p.). This is excellent advice to consider. Given thermodynamic realities, policies and frameworks must realistically address the challenges of educating both within and for conditions of disruptive change.

Methodology

In the absence of education policies and frameworks attentive to the laws of thermodynamics, adult educators innovate their own solutions – the papers published in the Special Issue are a testament to such creative and collaborative action. It is reassuring, however, for any educator, wherever they work, to innovate their practice within a framework or plan for action. Ideally, effective policies offer support for all climate educators, those who are innovators and those who are learning how to educate for and in the climate crisis. Policies, frameworks and plans can promote and support generative and responsive education. In the absence of extant Australian policy frameworks, we considered the question of, where else to find guidance and inspiration for transformative climate justice education? We decided to look to recent work done by the United Nations. Our research question became, what guidance can be found for adult climate justice education within readily accessible United Nations settings?

Our question is narrow in focus in that, across the globe, researchers, educators, their networks and professional associations are grappling with developing pedagogy, curriculum and approaches to the complex dimensions of climate justice education (see Lotz-Sisitka & Rosenberg 2022, Jafry 2019, Walters 2021). A 'desktop' research method was used for our descriptive content analysis – though, to be more accurate, we sat on the couch together with our laptops. We selected international documents directly relating to climate change education and examined forums to which Australia is a signatory. We searched the years 2010 to 2022. Ours is by no means is a comprehensive survey, we did title this paper as a "search". The following sections of this paper indicate the major frameworks and educational initiatives we agreed appeared relevant to the practice of adult-focussed climate education. Knowing about and being able to link to the United Nations transformative agenda means educators can locate their own work as positively contributing to global transformation. Climate justice education is developing along with the climate crisis, as is the challenge of educating in times of great uncertainty, and the challenge of educating for an existential emergency in real time.

United Nations Framework Convention on Climate Change

Climate education and training are recognised in the United Nations Framework Convention on Climate Change (UNFCCC), the 2015 Paris Agreement (Accord de Paris), and the associated Action for Climate Empowerment (ACE). Article 6 of the UNFCCC explicitly supports global education and training encouraging diverse educational initiatives and leadership for climate action and policy making and "seeks to reduce the impact of climate change by enabling society to be a part of the solution" (UNFCCC, n.d.). The rhetoric is positively inspiring. The difficulty lies in the translation of fine constructs into material effects. Over three decades, the United Nations has brought nations together for regular global conferences on climate, called Conference of the Parties or COPs. Successive COPs make recommendations that have few means of enforcement and rely heavily on moral obligation. The lack of effect to date is materially demonstrated by accelerating levels of carbon pollution (WHO 2021). This dilemma is one with which educators grapple constantly. The intention to act as framed within the UNFCCC is a wholly desirable, rhetorical vision.

The United Nations Climate Change Education developments

In 2010, the United Nations Education United Nations Educational, Scientific and Cultural Organization (UNESCO) launched their Climate Change Education for Sustainable Development programme (CCESD, 2010). The focus was on youth to "build a new generation of climate-aware citizens" (p.4), reifying the all-too-common trope that, as young people were to be the most affected by climate disruption, they were to be the main targets of educational efforts. It is not uncommon in United Nations documents to focus on young people given world demographics. Adult learning is not as fully elaborated, positioned then as "education and training" to "promote public awareness to the broadest audience possible [and] … create an informed global citizenry, a knowledgeable workforce, and enlightened government officials" (CCESD, 2010, p. 2). Usefully, UNESCO saw sustainability education as the task of all levels of education - primary, secondary, tertiary and vocational education.

This 2010 programme assumes a stability of governance and a policy rationality that Baer et al. (2022) have warned may no longer be realistic. The appeal was to ethics, individual actions, and gender equity.

The confounding matters of a corrupted global politics, deliberate and globalised corporate disinformation campaigns, and counter information (denial) efforts from powerful media interests were not addressed. There is still value in this initiative. The CCESD drew attention to the role of educators in generating an informed citizenry - a wisdom ignored in Australia at the time – articulating knowledge as foundational to global development. There have been successes. The One UN Climate Change Learning Partnership, an initiative helping nations achieve greater levels of climate literacy within their populations, led to the launch of the Zambian National Climate Change Learning Strategy in 2021 (Lupele 2022, UNCC: Learn 2021)

Based in Paris, the Office for Climate Education (OCE) was created in 2018 under the auspices of UNESCO to prepare people to "live in a changing world" (OCE, 2022). The OCE tagline "Learning today for a better tomorrow" is a tad optimistic given Armstrong-McKay et al.'s (2022) warning that multiple climate tipping points towards complete climate breakdown have already been reached. It is more rational, if less palatable, to suggest we are now learning for a 'less-worse' tomorrow. The OCE efforts speak directly to adults working in primary and secondary schools. UNESCO is preparing further guidelines for school climate education in consideration of its own youth-focussed research, and these guidelines are expected to be released in 2023.

In 2021, at the Conference of Parties gathering in the UK, national Ministers for Environment and Education delivered a joint statement titled, "Learn for the planet, act for the planet" expressing an intent to mobilise further for climate change education. The statement recognises gaps "in providing everyone with knowledge, skills, values and attitudes needed to effectively participate in the transition towards climate positive societies". ("Climate positivity" presumably means tipping points haven't been exceeded.) The statement recognises "climate change and extreme weather already impact the education system in developing countries, undermining children and teachers' safety, and access to basic education". As with most climate rhetoric, this statement wobbles between an enlightened vision of enhanced human and planetary well-being and acknowledging the certainty of looming uncertainty; between that which humans desire and the actual chaos we are experiencing now.

We see that educational constructs are shifting to a fuller recognition of the deep uncertainties of the climate crisis. But statements and frameworks don't (yet) fully explicated the real trauma that climate chaos has on people's ability to function as educators and learners. For example, a recent study by Ogunbode et al. (2022) shows that climate anxiety undermines human mental wellbeing "irrespective of where people live, and the social/political affordances enabled (or not) by country of residence" (p. 11). The problems of educating populations dislocated by wars and famine, and by severe weather events, sea level rise and temperature extremes is of increasingly serious concern (Cazabat 2022).

The United Nations Sustainable Development Goals

One challenge of adult education is that adults must be interested in and concerned about events and situations in order to seek further information and build their knowledge. While people are experiencing the trauma of climate anxiety, they have been ill-served by an established public media that has generally promulgated climate denial (for example, through the malign influence of Murdoch Press in Australia, the United Kingdom and the United States of America). Or, have only recently started to refer to global heating as the cause of extreme weather events – major outlets such as the Australian Broadcasting Corporation (ABC) and the British Broadcasting Corporation (BBC) are among those mainstream media that now make such links in their reporting.

The struggle for expressions of climate truth can be dismaying. Some national governments totally repress public discussion and criticism by imprisoning and murdering activists. Some nations use the punitive enforcement of the state to dampen and dissuade expressions of climate activism. Climate justice education engages with a range of contextual complexities to promote action and activism. These include navigation of regrettable government inaction; the well-funded disinformation campaigns of corporate profit-makers; increased political, police and military repression; and the lobbying of counter-transformation global economic interests, as well as coping with the physical and socio-cultural disruptions of climate-related perils.

At an international level, the argument for transition to a more just and equitable society is strongly made through the United Nations Sustainable Development Goals (UNSDGs) that were launched in 2015. The UNSDGs are positioned as integral to achieving the United Nations 2030 Agenda for Sustainable Development (United Nations 2015). The technique of reporting against agreed targets is an improvement on the previous Millennium Goals 2000-2014 which had no targets for progressive action. Education is positioned as central to realising all Goals. The pertinent UNSDGs for climate educators are Goal 4 Quality Education: Ensure inclusive and equitable quality education and promote lifelong learning opportunities for all, and Goal 13 Climate Change: Take urgent action to combat climate change and its impacts.

For UNSDG 13 the subsidiary target, SDG 13:3, focuses directly on "the integration of climate change measures into national policies, the improvement of education, awareness-raising and institutional capacity on climate change mitigation, adaptation, impact reduction and early warnings" (United Nations Department of Economic and Social Affairs, 2022). Adult climate education, whether narrowly or widely conceived, can be aligned to Target 13.3. Meaning that climate education in any context will find a relation to this target.

For Goal 4, the most relevant Target is 4.7 states a desire for all people to engage in learning to, "acquire the knowledge and skills needed to promote sustainable development". A broad view is taken promoting learning for human rights, gender equality, peace education, global citizenship, and "appreciation of cultural diversity and of culture's contribution to sustainable development". Clearly, these stated desires align with the intrinsic goals and purposes of climate justice education and with expressed desires for transformation. Our teaching experience at Australian universities showed us that when pre-service teachers and higher degree researchers are asked to directly align their work to any of the UNSDGs, they do find this activity motivating and useful. In aligning with UNSDGs 4 and 13, climate educators can make the case to their students that what they do within their own locale and context contributes to the global transformation agenda. And this matters when the global transformation to a more harmonious and just world is under threat.

For example, The Sustainable Development Goals Report 2022 (UNSD 2022) published in July 2022, is a report full of worry stating that, "cascading and interlinked crises" are putting the 2030 Agenda "in grave danger, along with humanity's very own survival". In discussing Goal 13, Climate Action the words are explicit: "To avoid the worst effects of climate change, as set out in the Paris Agreement, global greenhouse gas emissions will need to peak before 2025 and then decline by 43 per cent by 2030, falling to net zero by 2050. Instead, under current voluntary national commitments to climate action, greenhouse gas emissions will rise by nearly 14 per cent by 2030" (p. 3). In declaring a Code Red for action on climate change, there is panic that "our window to avoid climate catastrophe is closing rapidly" (p. 20). Regarding Goal 4, the 2022 Report focus was the global schooling crisis generated by the COVID-19 pandemic, with no direct mention of progress on adult learning.

The UNESCO ESD Roadmap

The UNESCO ESD Roadmap launched in 2020 (UNESCO 2020) offers a slew of responsible statements urging concrete policy action for all ages. In the pre-pandemic document, the vision is clear: learners are change agents. The argument is that if governments would "mainstream" education for sustainable development in their education policies and frameworks, education practice could be transformed. Then we would have a world where "learners in all walks of life across the world have opportunities to acquire the knowledge, skills, values and attitudes needed for promoting sustainable development and achieving the 17 SDGs" (p. 22).

The ESD Roadmap describes five priority action areas for signatory nations (pp. 26-34). These are that: 1) that education for sustainable development (ESD) must be integrated into all national and state educational policies; 2) that students are agentic people able to take action into their own interests and those of others and are to be supported as such; 3) that building the capacities of educators in all sectors (formal and informal) is central to successful sustainability transformation; 4) that mobilizing the energy of young people is vital to transformation; and 5) that key leverage points are community-scale actions for promoting partnerships for learning and building active

cooperation between learning institutions, the community, and business enterprises.

Priority Action Area Three offers a comprehensive statement on the value of all educators working in all sectors, supported by resources in the ESD for 2030 Toolbox (located online). Action by governments is needed to develop and enhance educators' capacity to "guide learners through the transformation" as well as being "expert builders and transmitters of knowledge for a sustainable future" by employing "innovative pedagogies to empower learners to become change agents" (UNESCO 2020, p. 30). Policy makers are encouraged to "enable, motivate and celebrate educators who successfully integrate ESD into their teaching to make education more relevant to the demands of today's world" (p.30). It was argued by Feinstein and Mach (2020) that a "transformative contribution of education" is necessary to prepare people for the complex adaptive decision-making they will be making. And, that lack of systematic support, such as an absence of policy and low levels of funding, will limit the learning needed for adaptation to conditions of rapid change. It is always difficult for educators in any sector to work within a policy and funding vacuum. Their innovations can crumble to dust, and their spirits get squashed, their educational partnerships become unstable.

With supportive rhetoric to be found in the international sphere, local educational actions can be explicitly linked to a strongly articulated global purpose, and this does prove to be motivating. Even though Australia currently shows no willingness to adopt the five priority action areas of the ESD Roadmap, as a signatory to the 2030 Agenda for Sustainable Development (United Nations 2015), we can still hold out some hope that policy progress will occur.

Transforming Education Summit (TES)

The recently developed Transforming Education Summit project (UNTES 2022) reiterates the importance of formal education to enhance the capacity for life-long learning for sustainability. The TES project was developed as part of Agenda 2030. The argument is that neither the whole Agenda nor each of the UNSDGs can be achieved by 2030 without much greater investment in education. Member nations are urged to act "with conviction, imagination, and solidarity" (p.1). There are five

Thematic Action Tracks each carefully aimed at leveraging educational areas identified as needing attention in every nation. These are Action Track 1: Inclusive, equitable, safe and healthy schools; Action Track 2: Learning and skills for life, work and sustainable development; Action Track 3: Teachers, teaching and the teaching profession; Action Track 4: Digital learning and transformation; and most importantly, Action Track 5: Financing of education.

In Thematic Action Track 2 is the statement that education must empower learners with "knowledge, skills, values and attitudes to be resilient, adaptable and prepared for the uncertain future while contributing to human and planetary well-being and sustainable development". The truthful experience of uncertainty is a sensible emergent discourse in education documents. The TES presents arguments for foundational literacy and numeracy underpinning climate literacy. This is educationally sound. Absent is any direct mention of enhancing political literacies or promoting agency and activism. The discourse of 'action' seems to be a politically safer terminology. As is the use of the terminology of "greening".

Associated with the TES is the Greening Education Partnership which aims to "get every learner climate-ready" and promote "rapid and radical transformation at all levels … with education as a central and powerful means to support the adaptation and strengthen the resilience of learners and societies …[and] ensure education systems become more resilient to climate change" (TESGEP 2022). The good news is that adult education and life-long learning receive specific mention in that "pre-primary to adult education, ESD aims to equip all learners with critical competencies covering not only knowledge, but also social and emotional awareness and actions, including critical thinking and collaboration". There are four components, each with a vision statement and a goal. These are greening schools, greening learning, greening capacity and readiness, and greening communities. Of interest to adult educators working outside the formal education sector is the greening community goal that, "countries will be able to report at least 3 different ways learning opportunities are made available for adults outside the formal education system to develop the skills, attitudes, and actions that will foster community resilience to tackle climate change" (TESGEP 2022). These statements are certainly encouraging of change, and nations "are invited" to commit to setting targets, monitor their progress

and showcase good practice through the ESD-Net 2030 platform. Whether Australia will be responsive to these international prompts remains to be seen.

The Marrakech Framework

UNESCO's work infers an intergenerational justice perspective, as younger humans are expected to suffer more over their total lifetimes (Macy and Johnstone 2022). This view can be contested in light of recent and rapid changes to the Earth system – we are all suffering now. Many Australians have suffered directly from extreme weather already such as a floods, droughts, bushfires, storms, cyclones, or heat stress events. The argument for climate justice education for everybody, regardless of age or educational setting, grows stronger every day. This is recognised by the UNESCO Institute for Lifelong Learning and Education (UIL) in their recent Fifth Global Report on Adult Learning (GRALE 5) launched at the CONFINTEA 7 conference in Marrakech, Morocco, June 2022.

The Marrakech Framework for action of harnessing the transformational power of adult learning and education (UIL 2022) recognises climate education as a priority action, strongly arguing for climate education to be mainstreamed in adult learning and education (ALE). The stated purpose is to equip young people and adults "with the knowledge and agency needed to adapt to and counter climate change and develop resilience and agency for transformation" (p. 4). The Framework goes further to argue that "ALE institutions themselves can act as models for green transition in society by greening their curricula, facilities and management" (p. 4). There is both solace and inspiration in the material intentions of the Marrakech Framework. This work represents a step forward in UNESCO's recognition of the necessity and importance of adult climate education as a leverage point for transformation. The word "agency" is used in the document in preference to the term "activism", again reflecting the international caution against promoting activism, given that activists in more than a few nations risk their lives and livelihoods.

Conclusion

Our search found useful international frameworks for initiating,

funding, resourcing supporting and sustaining climate justice education in the United Nations Framework Convention on Climate Change (UNFCCC); the 2015 Paris Agreement (Accord de Paris); the United Nations 2030 Agenda for Sustainable Development specifically UNSGDs 4 and 13; the UNESCO Climate Change Education for Sustainable Development programme; the One UN Climate Change Learning Partnership; the UNESCO Office for Climate Education; the UNESCO ESD Roadmap; the Transforming Education Summit project and its Greening Education Partnership; and the 2022 Marrakech Framework. All these documents provided details and highly researched constructs to rhetorically shape possibilities for transformative educational practice. The circulation of this range of ideas for a globalised adult climate education enables educators and policy makers to imagine a different present-future. We cannot deny the truth of the words in international documents, they are lovely and meaningful words. The problems lie in the translation of words to material realities. Looking through a lens of material reality, we did find what Boyd (2020) called, "an embarrassing litany of bold rhetoric, timid action and broken promises" (n.p.) – a flurry of gesturing in our view. The noticeable lack of coherent national or global action does not mean international settings are useless, nor that this rhetoric is meaningless. UNESCO (2022) acknowledges climate education is "crucial" for people to "understand and address the impacts of the climate crisis" and to be able to act as agents of change" (n.p.).

As Australian educators, at all levels of formal, informal and community adult education, are not yet supported by policy nor resourced appropriately to address the immensity of the challenge, there exists, by necessity, a multitude of individual restive and resistive solutions. These United Nations initiatives, protocols, policies, agreements, plans, roadmaps and statements of ambition are designed to directly influence educational policy and practice within nations where there is internal political will. In the face of rapidly worsening environmental conditions, there is a very strong case for Australian policy makers to be far more courageous. We need policy action. Social science and education research shows that personal and community experience with extreme weather events changes citizens 'minds, irrespective of political and economic settings. Adult educators are in the position of doing what they can, where they can, and at whatever level they can

to educate about climate change and for a less-worse future. It is high time that political, economic and community leadership addresses the urgent truth, as Gergis (2022) writes, "that life as we know it hangs in the balance, every fraction of a degree of warming matters. Every year of delay matters" (n.p.).

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