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Reimaging activism to save the planet: Using transdisciplinary and participatory methodologies to support collective youth action

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Abstract

This article offers new insights into the important role that transdisciplinary, participatory action research approaches offer young people as a safe space to 'act' on climate change and environmental degradation. Drawing upon methodological meta-reflections on three separate, but interlinked, projects (two UK-based, one in Vietnam), we highlight an evolving approach that fuses knowledge, local context and emotional connection to engage action. We argue that these innovative approaches facilitate the empowerment of young people to co-create and lead solutions, adaptations, and mitigations that can make a significant impact on the climate and biodiversity crises whilst influencing policymakers and inspiring collaborative changemaking.

Keywords

Activism, social action, participatory action research, climate, environmentalism

Introduction

Activism, and what it means to be an activist, has a global image problem (Parsons, 2016) with many societies seeing activists at best, as a nuisance, and at worst, hostile, aggressive and deviant (Lindblom and Jacobsson, 2014). Environmental activists are often represented through mainstream media and popular discourses as 'militant', 'disruptive' and 'self-righteous', stereotyped as outside of society's norms and values (Bashir et al., 2013: 627). They are simultaneously mocked as 'tree huggers' (Bashir et al., 2013) on one hand, whilst on the other seen as holding extremist ideologies and exhibiting dangerous behaviours; with Greenpeace and Extinction Rebellion recently classed within the UK anti-terrorist police's 'groups for concern' (BBC, 2020). Activism is always about doing something, attempting to disrupt the status quo and bring about social change through action. This often comes at a cost, including these concerted efforts to represent activists negatively rather than to focus on the many benefits (Trott, 2021). Moreover, 'activism' is illegal in some countries, with the UK now enforcing primary legislation to restrict the right to protest (Horton, 2022). In other countries, those engaged as 'activists' or environmental defenders, are in real danger through both laws and via threatened, and/or actual, violence (Middeldorp and Billon, 2019;).

The context outlined above can act as the 'perfect storm' for dissuading people to engage with climate action and environmentalism. Such negative perceptions of activism can deter change (Bashir et al., 2013), including for many young people, especially when they already have limited opportunities to express their ideas and engage in political and civic sphere. The climate and biodiversity loss crises feature highly on young people's agenda (Bandura and Cherry, 2019), with an estimated six million people taking part in the #FridaysForFuture movement; the world's largest mobilisation on climate change led by youth (Bowman, 2020). However, those taking part in such direct action, and particularly the perceived youth figureheads of the movements, have routinely been portrayed as moving beyond 'dutiful' through 'disruptive' towards 'dangerous' forms of dissent, especially when challenging the status quo (O'Brien et al., 2018). This has led to attempts to discredit and infantilise them, whilst simultaneously attacking their message and the underpinning climate science (Farrell et al., 2019).

As we come dangerously close to the surpassing the 1.5°C of global warming target set out in the Paris Agreement and look set to overshoot 2°C warming compared to pre-industrial levels, the UN Secretary-General referred to "a code red for humanity" (UN, 2021) reinforcing the need for urgent climate action. The climate crisis is bound by injustice; with those least responsible for its causes – including children and young people - being simultaneously more at risk of the impacts and least empowered to make the system-wide changes needed (Sultana, 2022; Islam and Winkel, 2017; UNICEF, 2015). As Hickman et al. (2021) note from their global survey of 10,000 respondents, 59% of young people were very or extremely worried and 84% were at least moderately worried and felt they 'have little power to limit its harm, making them vulnerable to climate anxiety', and 'more than 50% reported each of the following emotions: sad, anxious, angry, powerless, helpless, and guilty" (p.e863). These findings highlight a particular problem that contributes to our rationale for this paper; furnished with the knowledge of the climate emergency and without the hope of, or opportunity to engage in, meaningful action, young people are even more likely to feel negative health and wellbeing consequences (Gifford, 2011), such as eco-anxiety.

The purpose of this paper is therefore to highlight the methodological approach we have utilised across three distinct but similar participatory action research (PAR) projects that involve children, young people and youth. We argue the projects offered those involved an important vehicle to 'act' on climate change and/or environmental degradation. This meta-reflection, similar to that defined as a 'looping methodology' by Trajber et al. (2019) whereby we engage in 'an internal loop, showing the learning fields' (p91), reflects upon our experience of developing this approach whilst working on two projects focused on young people in England (one in the formal school classroom, the other through an informal youth group) and one international project working with youth in Vietnam, including an international Youth Advisory Board. The projects examined coastal erosion, the health of hedgerow habitats, and climate change-related hydrological extremities and its consequences (i.e., flooding/drought/soil erosion), respectively. In each of these projects, we brought together the social and environmental sciences, along with the arts and humanities to explore how the fusion of knowledge, local context and emotional connection are central to engaging and supporting young people to 'act' for change. In highlighting our evolving approach, we hope to offer an important rationale for the utilisation of similar approaches that move towards enabling innovative, youth-led and/or co-created solutions, adaptations and mitigations for responding to the climate and biodiversity crises. The paper is not however intended to offer a 'how-to-guide', complete with a description of all methods and tools used (of which there are many) or their individual benefits or drawbacks. Nor does it include any of empirical 'data', including any reflections from young people and youth themselves – though this work is forthcoming. Instead, what the paper does is to work through the theoretical and epistemological underpinnings of our evolving methodological approach to offer important new insights into a growing literature around advancing collective climate action, particularly with young people, through research (Bowman, 2019; Trajber et al., 2019).

Activism, social action and academic research

Before we outlines the projects and the approach they take, we first want to consider activism alongside alternate terminology. It is not the purpose of the paper to go into depth defining and debating the intricacies of activism. However, we start from the very basic position that activism, in its various guises and forms, describes activities and/or practices that are seeking to bring about social change to address underlying structural, political, social and/or economic problems (Ojala, 2015). Given the context above, whereby the term activism is often associated with direct protest (Börner et al., 2021), other terminology such as social action or collective action are also in use, and may even be used interchangeably with activism to denote 'traditional', protest-orientated forms of action. However, for others, these terms are used in slightly different ways to discuss other forms of action. In many ways, 'social action' is a similar catch all term, a term rooted in sociology (Parsons, 1937) that captures a diverse range of individual and collective, institutional (top-down) or grassroots (bottom-up) actions that aim to bring about social change. It is often linked to action

that attempts to address specific, often local issues and when used in relation to climate change or the environment, is often linked to adaption and mitigation strategies (Irlbacher-Fox and MacNeill, 2020). It might also be referred to as climate or environmental action. It is important to note therefore that social action and 'activism' are not mutually exclusive (Staeheli et al., 2013) and can mean different things to different people because terminology is almost always debated, and is never neutral. We have not discussed here individualised actions though we might also include the direct positive changes individuals make to their everyday practices and habits which some researchers might describe as more 'everyday', 'quiet' or 'implicit' activism (Trott, 2021; Pottinger, 2017).

In our research work, we refer to social action, collective action or climate action undertaken with and in partnership with the young people we work with. However, we recognise that others might describe our approach, or at least strands of it, as very much akin to activism. We do so predominantly to recognise that a lot of the work we do links the global issues of climate change with local, specific issues and uses participatory action research approaches. We are also mindful of the unfair negative perceptions of activism and the importance of being able to more broadly mobilise people into action globally, including in places where activism is not permitted or illegal, particularly important for our international work (Börner et al., 2021) and how 'activism' is often coded/perceived to be very White and middle class and referring to actions predominantly from the urban global North (Walker, 2021; Bell 2020). We place central importance on connecting the individual and the collective, the micro and the macro and to doing the work we do within a critical framework where the line might be considered thin between research, advocacy and activism. We are also very aware that whilst we explore action that helps raise awareness and in particular offers mitigations/adaptions/solutions, we all recognise that the best way to halt the crises is through systemic changes. However, our work is predominantly about creating and supporting localised opportunities for achievable and tangible action for young people and youth that is framed with a clear sense of optimism and hope (Spyrou et al., 2022; Nabi et al., 2018). We discuss this approach in more detail shortly. However before we do, we note one more brief point on terminology. We purposely use both 'youth' and 'young people' throughout. This is because our work includes UK projects, where young people is the preferred term and an international-focused study where youth is preferred.

The projects

This paper reflects upon of our experiences working across three distinct projects using a similar but evolving approach. Below we briefly describe each project, their context and their broad outputs before we discuss and explore the PAR approach linking them. The projects are at various stages and findings plus accounts of specific methods used are being written up elsewhere.

INSECURE

INSECURE (Intergenerational Stories of Erosion and Coastal community Understanding of Resilience), worked with 60 young people in Year 8 (age 12-13) of a secondary school over a six week period in their Geography lessons. The project was located in Withernsea, a small coastal town on the Holderness coast, in Yorkshire, England which has some of the fastest eroding coastline in the world and where many residents face a range of significant socio-economic disadvantages¹. The area has experienced a changing coastline for many years, with climate change exacerbating these issues. The project began in late September 2020 after all students returned to school following the pandemic lockdown in the UK from March 2020. As many Covid-restrictions were still in place, the research sessions took place digitally with the researchers linking to students in classrooms via Microsoft Teams each week. A key rationale for the school getting involved was to re-engage the young people following lockdowns and to connect their learning to local issues. It was also intended to get the young people outdoors and re-connect and re-integrate back into the community. Despite living in

¹ Withernsea is within the 10% most deprived areas according to the Index of Multiple Deprivation (2019) and is an isolated coastal town that has experienced significant socio-economic decline over the last 40 years https://intel-hub.eastriding.gov.uk/east-riding-profile/#/view-report/d358521cfd8a4a7c8ed2b39da9c28fac/E06000011

the community for most for their lives, many of the young people had no knowledge that coastal erosion was happening, or was a significant issue as it was simply something that they had "grown up with". Most critically, they did not associate what was happening in their community with climate change and did not see climate change as something experienced within the UK. The project was designed to allow the young people involved to explore their local environment, and to consider this in light of the global issue of climate change whilst exploring theirs, and their broader community's, feelings around these issues. The main thrust of this project was to support young people to collect intergenerational stories of how the community of Withernsea has lived with coastal erosion and how this has impacted them over time. The students were then asked to interpret the stories into expressive poems which they added photos they had taken to represent the stories. These poems and stories were then brought together to create an emotive film that has since been voted as one of the five best climate emergency films of 2021 by Arts and Humanities Research Council's 'Research in Film Awards (RIFA)'. The film was also shown at COP26 and influenced the production by the National Youth Theatre, also hosted at COP26 (for project details, see https://hull-repository.worktribe.com/project/3762905/intergenerational-stories-of-erosion-and-coastal-community-understanding-of-resilience).

HedgeHunters

The aim of this second project was to work with the East Riding (of Yorkshire) Green Influencers scheme to engage young people in the benefits of hedgerows within the landscape. The project started in September 2020 and is ongoing. It works with a diverse group of young people (seven in total from age eight upwards) in inclusive ways to encourage young people to access the outdoors for improved health and wellbeing, whilst furthering understanding of their local environment. Similar to INSECURE, the project worked to support young people to understand their local community in light of the global issue of the biodiversity and climate crises, including exploring their feelings around this, as well as that of their local community. It again involved collecting intergenerational hedgerow stories but also involved the young people engaging with citizen science methodological approaches. Again, as this project started over lockdown periods, meeting with young people took place digitally each week to introduce the them to the project and to build relationships, but evolved to be an increasingly in-person, community-based activity. Unlike many research projects that cease once the core source of funding expires, this project has had continued engagement, with regular meetings still taking place with a number of further activities being led by the youth themselves. So far, the youth have co-created an app to collect data for mapping hedgerows, constructed a website, developed a learning resource pack for schools to use, authored a zine which is available online and also distributed as a hard copy to all schools in Hull and the East Riding. The young people are also authoring and illustrating a children's story book, where a copy will be distributed to every school in Hull and the East Riding, as well as the book available to purchase (for project details, https://hullrepository.worktribe.com/project/3762893/hedgerows-mapping-the-gaps-with-a-combination-of-citizenscience-and-artificial-intelligence).

Vietnam Youth Futures

The final project is based in North Vietnam working specifically with 18 youths (ages 15 to 30) from the *Ho Chi Minh Communist Youth Union*. The project also has a Youth Advisory Board made up of youth from around the world engaged in climate-related activism/social action who support the research team and the project youth participants. The 18 participants were selected from over 370 applicants, and come from diverse socioeconomic, educational, and cultural backgrounds. The youths work in three distinct provinces (in teams of six), each facing different issues relating to hydrological extremes exacerbated by climate change within the Red River Catchment: Lào Cai, Phú Thọ and Nam Định. The project builds research capacity of the participating youths so that they can draw upon community-based intergenerational and indigenous knowledge to identify stories of how communities are living with and adapting to climate change. The youth participants then co-analyse these stories with the research team (containing both social and environmental scientists) before representing these climate stories of action and adaption in innovative and creative ways

as a tool to raise awareness of climate change and further support community resilience building. Examples of creative outputs included videos/vlogs, a comic strip, a flip book and an illustrated children's storybook all represented in a digital storymap/book. The stories included sharing knowledge on changes made to animal rearing and crop cultivation/harvesting, nature-base solutions to help mitigate localised flooding and river bed erosion and how communities have come together to support each other. The stories from the provinces also informed an original water puppetry performance debuted at the showcase and policy exchange event at the Vietnam Museum of Ethnology in Hanoi and two animations informed by the research have also been produced with the project already having significant impacts, including on policy-making locally and nationally within Vietnam (for project details https://hullrepository.worktribe.com/project/3129711/youth-led-adaptation-for-climate-change-challenges-invietnam-social-action-inter-generational-and-inter-cultural-learning and to view all storytelling/creative outputs, see https://www.youtube.com/@Younity4Action).

All three projects involve teams of researchers from the social and environmental sciences working in transdisciplinary ways where the boundaries between disciplines merged, and all projects also draw upon the arts and humanities. We, as authors, lead or are team members of all three projects (*INSECURE*: Parsons lead/Halstead/Jones; *HedgeHunters* Parsons co-lead with Wolstenholme; *Vietnam Youth Futures*, Jones lead/Parsons/Halstead). Whilst each project had slightly different foci and worked with different groups of young people, all worked with groups typically not included in research, coastal and disadvantaged (INSECURE), semi-rural with those experiencing socio-emotional and/or health difficulties (HedgeHunters) and rural/semi-rural communities including engaging with socio-economic diversity and ethnic minorities/indigenous communities (VYF).

The approach

Glocalising and humanising climate change and environmental degradation

All three projects focus on environmental global challenges, namely climate change but also the associated biodiversity loss crisis (HedgeHunters), and attempt to bring about social change through working with young people to support their engagement in local action. Scholars such as McAdam (2017) have long discussed the significant issues in mobilising climate action compared to other social movements due to the extended and future orientated timeframe it invokes and the lack of personal ownership ('it is not happening right now' and 'it does not affect me or where I live'). McAdam (2017) therefore argues that to mobilise people into a movement, '...at a minimum, people need to feel both aggrieved about (or threatened by) some aspect of their lives and optimistic that by acting they can begin to redress the problem' (p194). Whilst many young people globally are already aware of and/or threatened by climate change and environmental degradation, others are either not fully aware of the scale of the problem or may be unable to link the changes they are seeing to climate change. Moreover, 'climate action' is also often narrowly understood as being linked to either traditional forms of protest-orientated activism, or individual action that is almost always perceived as involving giving up things or changing our habits and personal behaviours (Moser, 2020). Therefore, a key part of these projects is to firstly include climate and environmental education that locates the issue as a qlocal one; one that is a global problem being experienced locally. Not only this, the importance here is to bring together the science of environmental degradation (climate change and biodiversity loss) whilst humanising the issues, exploring how the physical or natural interact with humans, including climate and environmental injustices.

All of the projects explored the wider climate issues underpinning their project as part of the educational journey, but used this as a means to explain what is happening locally and steer a project focus. The INSECURE project discussed how coastal erosion has always happened along the coastline, however it was also

explained that climate change is accelerating the rates and speed of the erosion due to warming, rising seas and increasing storms. In the VYF project, it was explained that climate change leads to a worsening of hydrological extremes that is impacting the three provinces differently. For instance through droughts, landslides due to heavy rains and enhanced soil erosion upstream in Lào Cai, flooding in mid-stream Phú Thọ and rising sea levels, sinking land and accelerating saltwater intrusion in downstream Nam Định. In HedgeHunters climate change was discussed in terms of the issues with global heating and wider biodiversity loss including native trees and animals. A key part of the projects therefore involved equipping the youth with the knowledge they needed to understand the larger environmental issues and creating the space needed to for young people to express their views (Lundy, 2007). The projects all included education on conducting research, equipping the youth to go into the community and explore for themselves the human impacts of the changes discussed. A large part of this was developing the participatory skills and confidence to speak with people in their communities.

All the projects sought to explore opportunities to raise awareness of the issues both within, and beyond, their community. Two of the projects have also focused on exploring mitigations and adaptions. for instance, VYF involved youth searching for local, traditional and indigenous practices and for HedgeHunters, the participants have been raising awareness of the positive role hedgerows can play in both mitigating the climate crisis and helping engage people in citizen science that will assist in mapping the gaps to support with planting opportunities. The importance of hope and optimism for redressing issues has become even more central in our work. For INSECURE we are currently exploring further opportunities for the positive 'action'. Our work here predominantly focused on raising awareness of the issues facing the already disadvantaged town that research has already indicated climate change will exacerbate (Zsamboky et al., 2011). Whilst seeing the engagement of young people acting to raise awareness does contribute to a sense of optimism, a question frequently asked by people viewing the film is 'what more can be done?', emphasising even further the need for positivity and hope in any such messages. We return later to some of the issues picked up here, especially the role of emotions, and explore in more depth our approach to communicating the issues and sharing the findings.

Knowledge, reflection and action: Praxis

This work follows in the vein of other work committed to bringing about action through partnership, working with both the youth and young people and the practitioners who support them (Bradbury Huang, 2010). Our approach is underpinned by Freire's praxis, that is 'reflection and action upon the world in order to transform it' (Freire, 1970: 51). Freire adds:

It is only when the oppressed find the oppressor out and become involved in the organized struggle for their liberation that they begin to believe in themselves. This discovery cannot be purely intellectual but must involve action; nor can it be limited to mere activism, but must include serious reflection: only then will it be a praxis (p65).

Young people can be considered as oppressed because of the climate and environmental injustices they face (Bajracharya, 1994; Stephens, 1996). They have, as outlined above, contributed little to the crises and also have the least opportunity to redress the issues through normal socio-political arenas. These injustices are further exacerbated through climate colonialism meaning the unequal impacts of the climate and environmental crises are also geographically and spatially unequal, racist, gendered and classed (Sultana, 2022; Walker, 2021). We have discussed these injustices and their intersections in more depth elsewhere (Jones et al., 2021). Here, Freire (1970: 52) notes that for praxis to be realised 'the oppressed must confront reality critically, simultaneously objectifying and acting upon that reality' and adds that 'critical and liberating dialogue, which presupposes action, must be carried on with the oppressed at whatever the stage of their struggle for liberation' (p65). As such, our projects are underpinned by a commitment to critical engagement with the knowledge we explore. It is never knowledge for knowledge's sake. Rather, it is helping scaffold knowledge to support action shaped around both needs and prior knowledge - taking into consideration the

'stage of their struggle for liberation'. We approach discussions of climate change not from the perspective of delivering scientific facts, but from the perspective of injustice though as educators and researchers, we are careful to do this in both age- and socially/culturally-appropriate ways that are ethical. Thus 'critical dialogue' and recognising people's lived experiences as an asset is central to Freire's notion of praxis and again forms an important shaping influence of our PAR approach. We therefore ensure that we do not approach the educational elements as if 'knowledge is a gift bestowed by those who consider themselves knowledgeable upon those whom they consider to know nothing' (Freire, 1970: 72). The education and knowledge is never one-way didactic delivery and always allows space for dialogue, reflection and application from which not only are the participants expected to learn, but from which we the researchers also learn. The theory here supports action and the reflections on action shape our theory as our approach is an iterative, evolving and 'looping' (Trajber et al., 2019) one. Praxis allows us to build from each experience and apply our learning to each project, enabling us to respond to differing contextual and individual (emotional) characteristics. This supports working with different ages across, or even within, projects and remaining reflexive about age appropriateness (and thus methods may or may not work) including what sort of action is possible.

Participation

Freire was clear that transformation should be led by the oppressed themselves. However, this is often at odds with how research and in particular, research funding works in academia (Franks, 2011). Research is often both initiated and led by academics because proposals are required that fit specific, often time-limited funding calls. Our research is often no different. All three of the projects discussed here were initiated by us as researchers having a very clear agenda linked to our research aims and objectives, even where we did include the voices of young people in planning, and we are careful not to claim otherwise. Though we cannot claim that all these projects were led by 'the oppressed', we always set out to counter tokenistic consultation, co-option or extraction of information and in the HedgeHunters project in particular, are now working with those young people to conduct research focused upon their own needs/ideas. Our aim is to promote the coconstruction of knowledge and co-production of change, and, wherever possible, provide the space and opportunities for at least some aspects of the research, to move towards youth-led work. As experts in their own lived experience, the young people and youth in our research are active participants driving the process of transformation whereby they research their own communities, draw upon their own knowledge and understanding and explore opportunities for action alongside other community members. This way of working takes time, especially where relationships between researchers and youth do not already exist, as was the case for INSECURE and VYF. Therefore significant time and effort must first be dedicated to establishing collaborative relationships and building trust with an ongoing duty of care (Jones et al., 2020). It is therefore somewhat inevitable that such research can only ever work in meaningful ways with relatively small numbers of children and youth at any one time.

Designing the research to enable moving from researcher-led to varying degrees of co-creation and then to youth-led solutions, adaptations and mitigations for responding to the climate and biodiversity crises are important across all three projects. As an evolving and iterative approach that offers new innovations as well as building upon our previous experiences of working with young people and issues on injustice (Jones et al., 2020; Halstead et al. 2021), our work is always developmental as it learns from the young people we work with. This means understanding when things work, and when they do not. In our attempts to prioritise co-creation and youth-led activity over researcher-initiated, we have at times felt pressure to by-pass some earlier scaffolded activities. For instance, in our VYF, especially resulting from significant delays due to Covid-19, we have needed to scaffold more than anticipated as we worked with groups of youth in Vietnam. Our approach, and particularly its youth-led participatory ambitions simply did not work in the same way in Vietnam where social and cultural differences had impacts upon confidence levels, and youth's familiarity with youth-led activities. Barriers with physical distance (between the UK-Vietnam team and youth) and language differences were also identified by youth as hindering communication and relationship

development. The youth thus requested more direction from us as researchers, quelling some of our initial 'participatory' ambitions. This process of evolving power relations whereby youth gradually take on ownership of the research the specific elements cannot be rushed (Franks, 2011). Therefore, whilst all the projects discussed here started with scaffolded learning opportunities, there is no set formula as to when that relationship changes to more co-creation or youth-led activity, or what particular tools and methods will work, as this is always context-specific. This includes both the context in terms of the specific youth groups participating, the stage of relationship development, and the time-limits imposed by external funding that can act as a significant barrier to movements towards more youth-led dimensions of PAR. HedgeHunters is an ongoing project with different funding parameters which has meant that over time, the young people have gradually taken over the sessions and decided the future direction of the research with the zine and book based on their own ideas, with funding to produce them. As evidenced elsewhere (Ritchie et al., 2013), proximity is clearly an important facilitator for participatory and youth-led work in this area. However, this does not negate the important work that can be done in shorter time frames and at greater distance.

In this respect, and as part of that ongoing reflection and 'looping methodology' approach to analysing our approach, we have thought long and hard about what participation means in this context. Previously we had all often thought of participation through Hart's (1992) model which sees child and youth participation as hierarchal; describing movement up a ladder of participation - from manipulation, decoration and tokenism on the bottom rungs of the ladder as non-participation, through varying degrees of participation before reaching child/youth initiated engagement near the top. However, our desire to understand and capture what we were actually doing led us to engage with other frameworks of participation that linked specifically to action. This led us to Cahill and Dadvand (2018) who reviewed existing frameworks of participation and reconceptualised youth participation linked to informing action. Cahill and Dadvand's (2018) framework sought to critically understand what participation involves and to consider practical dimensions linked to youth action. Their P7 model includes seven interacting domains, the seven Ps, which are: i) purpose, ii) positioning, iii) perspective, iv) power relations, v) protection, vi) place and vii) process. As this model considers the dimensions of participation, we saw that this model more closely aligned with our own work as it moved away from seeing youth-led work as the 'true' participatory approach and recognised the importance of co-creation and collaboration (although we do see the importance of supporting youth to move towards youth-led dimensions where possible).

More latterly, Thew et al. (2022) adopted Cahill and Dadvand's (2018) framework to explore young people's lived experiences of being involved in environmental negotiation associated with the Conference of the Parties (COP). They argued that the last P - 'process' focused on methodology rather than analysis however, and as such, replaced the final P with 'psychological factors', which they felt was important for understanding participation in the context of environment and climate change. Emotions and the affective dimensions of action are also crucial to us and therefore we also felt adopting 'psychological factors' was important, although we chose not to replace 'process' as we felt it was important to exploring *how* action is taken. We therefore see an '8P' version of the model developed by Cahill and Dadvand, adding Thew et al.'s 'psychological factors' as a particularly helpful way to view participation as working across our projects (see Jones et al., (2023) for more details of how this worked in VYF for our Youth Advisory Board specifically in a paper co-authored with its members). We have discussed many of these 'Ps' so far in introducing our approaches (e.g. attempting to redress power and the significance of place for how people experience climate change), but we concentrate specifically on this eighth P, 'psychological factors' in more detail below as we explore the centrality of emotions and storytelling to our PAR work.

Emotions and telling stories

As we argued earlier, we have a strong belief that knowledge on climate change and the environment needs to be humanised. That is, the climate and biodiversity loss crises must be communicated in terms of its impacts and injustices on humans, as well as the natural world, if we want to mobilise action (Moser, 2010).

The co-produced film in INSECURE spoke to this, in highlighting the injustices and impacts on people. However, the delivery of knowledge and 'facts' based around the issues, even if they are focused on humans is also unlikely to engender the type and scale of climate action required. We have already argued that such knowledge, without understanding the opportunity for action is disempowering (Willis, 2020). We also argue that knowledge and 'facts' will not lead to action because they offer abstracted and emotionally distanced understandings that enable cognitive dissonance to run free, whilst framing the solutions as located in the hands of scientists (Gifford, 2011).

In both HedgeHunters and VYF we have drawn upon the work of De Meyer et al. (2020), who argue that it is important we use stories not just to highlight issues but to inspire action. Thus in HedgeHunters, the focus is on supporting action with the storytelling and emotional connections used to foster an engagement with the actions. Likewise, in VFY, the research works to support youth in seeking positive stories of action from their communities (alongside the issues). The creative outputs will share these stories both within these communities and beyond. In INSECURE we are 'looping' back to explore opportunities to share stories of hope as that project moves into its next phase.

In Jones et al. (2023) we argued that emotions were central in understanding climate (in)action. Drawing upon Kübler-Ross (1969; EKR Foundation, n.d.), we developed an operational framework that mapped the emotional journeys people take as they move from first becoming aware of climate change (fear/anger/depression/denial) through to taking action (acceptance - leading to a commitment to action involving exploration and rebuilding). We argued that whilst negative emotions were important sensitising steps towards action, action is most likely to happen when it is linked to both a positive, and possible, vision whereby 'a story of transformation' (Willis, 2020: 94) and a sense of hope (Sanson et al., 2019; Ojala, 2015; Börner, 2023) can emerge. In Halstead et al. (2021) and Jones et al. (2023), we specifically examined the significance of emotions in inspiring young people into climate action through collaborative autoethnographic co-authorships with young people engaged in climate action. We therefore see emotions as central to inspiring action and therefore now incorporate opportunities to engage with emotions in the research. We do so both in terms of supporting those youth directly involved to explore their own emotions, but also in terms of connecting with others as a means to inspire further climate action. Innovative and creative research methods as well as tools are essential to this. This has included empathy mapping techniques as a cue to engender an appreciation of transgenerational perspectives that was first used in INSECURE, and since included within the VYF project. We also use the arts as an important engagement vehicle to help break through the emotional disconnect for others not yet involved in climate/environmental action (Cozen, 2013; Roosen et al., 2018) with presenting creative artefacts forming an important youth 'action' across all projects.

In particular, we draw upon storytelling approaches to help draw out emotional connection, foster dialogue and draw upon a growing literature that sees storytelling as central to climate/environmental communication (e.g. Bloomfield and Manktelow, 2021; Moezzi et al., 2017). The story underpinning the need for action and its goals have to be 'an appeal to the heart' (Willis, 2020: 96) and invoke emotional responses because trying to appeal to the head through the now indisputable science on the crises has thus far been unsuccessful in mobilising the action required. In INSECURE, the young people involved proved successful in using emotions through their sharing of community stories to breakthrough to new audiences and raise awareness of the coastal erosion in their community. As mentioned, the film containing their poems and photos sharing these community stories is having a significant impact, reaching the finals in the climate emergency category of the UK's AHRC's 'Research in Film Awards' and inspiring new focus and interest in the community. However, as we have previously argued elsewhere, addressing the problems with climate change needs to be delivered via a two-pronged approach:

Through stories of injustice and its impacts on people, both oneself and the injustice of "others", in ways that evoke a collective sense of loss with the framing of action equally needing to be affective, focusing on what can be gained by making these changes through stories that resonate with people in ways that evoke hope. (Jones et al., 2021: 52).

Conclusions

The purpose of this paper was to explore the PAR approach developed with young people across three distinct but similar action-focused research projects as an opportunity to 'act' on climate change and environmental degradation. Written as a meta-reflection, we emphasised our commitment to working in transdisciplinary ways involving the social and environmental sciences with the arts and humanities to explore how the fusion of knowledge, local context and emotional connection can support children and youth to engage in social action. In highlighting our evolving approach, our intention was to spotlight how research such as this can provide an important space to enable collaborative co-created and/or youth-led solutions, adaptations and mitigations for responding to the climate and biodiversity crises. We argued that this is especially important given knowledge of the crises without the space or opportunity for action, can have significant implications for the health and well-being of children young people and youth. We also set this against the backdrop of the unfair, but persistent, negative reputation that environmental activism has and the increasingly tighter legislation limiting the right to protest across many societies, having to be especially careful of the context in both the UK and in Vietnam, for instance in ensuring all appropriate permissions were in place to enable the research.

Agency and a clear sense of efficacy, and that there is an opportunity to make a difference, are all important for mobilising action. We argue that the approach we adopt does help mobilise action in two ways. First, it supports the young people and youth to engage with social action in safe and supportive environments, learning from both their own reflections and also linking up with other like-minded peers to support their involvement in collective action. Secondly, our research involves young people sharing their work with their communities and beyond, using arts-based methods to raise awareness as well as to share those positive stories of action. In this way, the approaches we have adopted are an example of research as activism. In offering critical perspectives on the causes and injustices underpinning the crises to support climate and environmental literacy, and through embedding praxis, the research also builds youth capacity to engage in, develop and lead similar work to bring about transformation. We are not advocating that such action will or should ever replace traditional protest-led activism. We are only too aware that the best way out of these crises or even to mitigate its unjust impacts, is through systemic change and that has often been brought about through such activism. However, we think such social action is an important strand of activism that will help support action for those not likely to engage in other forms of activism. In helping frame action from the perspective of possibility, that is, what is to be gained, not just what is to be lost (Nabi et al., 2018) children and young people, and indeed ourselves, can be part of a reimagining of activism, that blurs the boundaries (Börner et al., 2021) to save the planet and engages the large scale mass mobilisation needed for climate and environmental action.

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