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Activism as education in and through the youth climate justice movement

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Abstract

Young people worldwide are increasingly participating in a global movement for climate justice, yet to date, little research has examined how youth climate justice activists conceive of and experience activism as education. The present study used in-depth, semi-structured interviews with 16 US climate justice activists (aged 15–17) to address the research question: How do youth climate justice activists explain and experience the educative power of their activism? The results of reflective thematic analysis bring to light youths' dual roles as 'learners of the movement' and 'climate justice educators'. As learners, youth described gaining awareness of climate justice directly from the movement, as well as learning a variety of skills (e.g., organising, communication, conflict resolution) through their activist engagement. Simultaneously, youth described their role as educators through a range of activities intended to raise awareness among adult and youth audiences, including educational workshops and trainings, school visits, teach-ins, curriculum development, talk shows and interviews, creating digital resources, social media outreach and public protest (e.g., strikes, marches and demonstrations). Beyond spreading knowledge of climate in/justice, youth activists were also educators of action and social change processes—noting that learning about governmental institutions and political processes enabled them to exercise their democratic citizenship and equip and embolden other young people to do the same (e.g., via political advocacy trainings). The findings of the

present study have implications for creating climate justice curricula that not only attend to the scientific and technological dimensions of the climate crisis, but also enable learners' justice-driven action and democratic participation.

KEYWORDS
activism, climate justice, political participation, youth

Key insights

What is the main issue that the paper addresses?

Young people are increasingly participating in a global movement for climate justice, yet to date, little research has examined how young climate justice activists experience activism as education. This study used in-depth interviews with young activists (aged 15–17) to address the question: How do youth climate justice activists explain and experience the educative power of their activism?

What are the main insights that the paper provides?

Thematic findings highlight activists' simultaneous roles as 'learners of the movement' and 'climate justice educators'—gaining, generating and disseminating knowledge of climate in/justice and social change processes. The findings have implications for climate justice education enabling learners' justice-driven action and democratic participation.

INTRODUCTION

> Why should I be studying for a future that soon will be no more when no one is doing anything whatsoever to save that future? And what is the point of learning facts in the school system when the most important facts given by the finest science of that same school system clearly means nothing to our politicians and our society?
>
> (Thunberg, 2018)

In December 2018, just a few months after her first school strike on the steps of the Swedish Parliament, 15-year-old climate activist Greta Thunberg gave a TED Talk entitled 'School strike for climate—save the world by changing the rules' (Thunberg, 2018). By then, more than 17,000 students across 24 countries had joined in Friday school strikes (Rescourio & Tridimas, 2023). By March 2019, just 7 months after Greta's debut solo strike, more than 2 million young people were school-striking across 135 countries in a youth-led climate movement that came to be called Fridays for Future (Svensson & Wahlström, 2023). In that same speech, Thunberg invited the mostly adult audience to imagine the transformative power of youth-led collective action, saying: 'If a few children can get headlines all over the world just by not going to school for a few weeks, imagine what we could all do together if we wanted to' (Thunberg, 2018). Five years later, in 2023, Thunberg graduated from high

school and participated in her final school strike, yet the school strike movement lives vibrantly on (Jergus & Schmidt, 2024).

In the era of school strikes, the potential knowledge gains of a school day are set against the potential existential loss of a safe and secure climate for young people and future generations. Youths' meagre loss of a day of education, the argument goes, is worth gaining an ecologically hospitable world. The rhetoric of such trade-offs, however, denies the educative power of youth activism (Crouzé et al., 2023; Malafaia, 2022; Verlie & Flynn, 2022). Within and beyond the Fridays for Future movement, youth climate activists around the globe are engaged in a variety of teaching and learning activities through which they absorb, generate and disseminate critical knowledge for societal change (Mayes, 2023). Youth activism has been defined as 'the organized efforts of groups of young people to address the root causes of problems in their local, national, and global communities … [through modes that include] in person or virtual, grassroots or joining an established organization or cause, one-time participation or long-term commitment' (Ballard & Ozer, 2016, p. 223). Forms of activism within the youth climate justice movement include protests, rallies, marches, school strikes, policy advocacy, petitions, teach-ins, sit-ins and a range of other forms of civil disobedience and non-violent direct action. In recent years, a small but growing literature has begun to draw important linkages between youth activism and its implications for school-based climate change education (CCE), documenting a range of potential pedagogical approaches and their educational and societal benefits (Atkinson & Ray, 2024; Bowman, 2020; Brennan et al., 2022; Damico et al., 2020; Malafaia et al., 2022; McGimpsey et al., 2023; McGregor et al., 2018; Panos & Sherry, 2023; Trott et al., 2024).

To date, however, few studies have explicitly examined youth activists' views on the educative power of youth activism for climate justice (Grewal et al., 2022; Karsgaard & Davidson, 2023; McGregor & Christie, 2021; Verlie & Flynn, 2022). Although climate justice lacks a single, widely accepted definition (Walker et al., 2024), it is a framework that seeks to recognise and rectify the reality that marginalised and vulnerable groups are disproportionately burdened both by the impacts of, and (policy) responses to, climate change (Mikulewicz et al., 2023). Climate justice thus 'envisions not only a world in which climate change no longer exacerbates social inequity, but one in which societal responses to its impacts themselves offer an opportunity to build a more equitable and sustainable world' (Mikulewicz et al., 2023, p. 1277). As Mayes (2023) recently articulated, 'to learn about climate justice is distinct from learning about climate change alone; the concept of "climate justice" emphasises the social injustices that are inextricable from climate change' (p. 2). A recently published systematic review of the CCE literature concluded that youth climate justice activists are both under-recognised and under-studied as non-formal adult and youth educators who are actively involved in raising public awareness and spurring action for climate justice within their communities and around the globe (Trott, Lam, et al., 2023). Given young activists' central role in educating their peers, policymakers and the public, the review called for future research to recognise young people as agents of change for climate justice, especially around the educative dimensions of their activism and civic engagement. Responding to this call, the present study used in-depth interviews with 16 US youth climate justice activists to explore their views and experiences of activism as education.

Literature review

Young people worldwide are increasingly engaging in a global campaign advocating for climate justice (Malafaia, 2022; Neas et al., 2022; Nkrumah, 2021; Pickard, 2019, 2022). Together, these young people are bringing attention to the unjust and unequal effects of the climate emergency, while urging current decision-makers to take immediate action to

halt climate breakdown and fundamentally reshape existing societal systems (e.g., policies, economies) to enable more just, sustainable futures for themselves and future generations (Foran et al., 2017; Holmberg & Alvinius, 2020; Vamvalis, 2023). Many of these young activists lack political rights, such as those under the age of 18 in the United States who are unable to vote. Consequently, they are urging adults in positions of authority to act on their behalf through appeals such as the one by 15-year-old Thunberg (2018), who implored adults to act swiftly to address the climate crisis:

> What we do or don't do right now will affect my entire life and the lives of my children and grandchildren. What we do or don't do right now, me and my generation can't undo in the future. … We already have all the facts and solutions. All we have to do is to wake up and change.

Through action repertoires that encompass marches, demonstrations, school walkouts and other forms of protest and non-violent direct action to raise awareness around the urgency of action for climate justice (Arnot et al., 2023; Bowman, 2020; Martiskainen et al., 2020), the youth climate justice movement represents a powerful and global yet diffuse public education project. Its leaders—young activists—are simultaneously students of the movement and climate justice educators who are disseminating stories of injustice and possibility intended to inform and activate their peers, parents, politicians, powerholders and the public for sweeping, systems-level change.

Education can be a critical force for societal transformation (Davidson et al., 2023; McKenzie et al., 2023) yet it is often conceived as unidirectional, whereby adults confer important knowledge and skills upon younger generations (Biswas, 2021; Lam & Trott, 2024). A key driver of youths' participation in climate justice activism, however, has been a sense of abandonment and betrayal by today's adults—not only due to inadequate climate action by political leaders (Hickman et al., 2021), but also inadequate, neoliberalised CCE that does little to inform and equip young people to engage with today's realities (Long & Henderson, 2023; Schindel Dimick, 2015). In the United States, where there is no national curriculum on climate change, teachers spend little classroom time on the topic and too commonly (37%) disseminate misleading or inaccurate information, indicating the need for improvements to educational standards and teacher preparation (Plutzer et al., 2024; see also North American Association for Environmental Education, 2023; Worth, 2021). Moreover, CCE very rarely transcends the science and technological aspects of the issue to discuss its systemic roots or political implications (Neas, 2023; Stapleton, 2019). As a result, young people report feeling that their CCE left them either under-informed about the gravity of the climate crisis, or—due to its apolitical, scientific framing with no action orientation—feeling overwhelmed, terrified and immobilised (Jones & Davison, 2021; Neas, 2023).

In contrast, attending to the political, systemic and justice implications of the climate crisis comprises the central message of the youth climate justice movement (McGregor & Christie, 2021), which invites young people to join in the struggle for societal transformation—a potential pathway to cultivate 'meaning, purpose, and hope' (Vamvalis, 2023, p. 1). Thus, youth climate justice activists are filling critical gaps in public awareness left by formal educational institutions, while turning the tables on traditional, adult-led, top-down pedagogies by educating public audiences about and for climate justice and sociopolitical action (Biswas & Mattheis, 2022; White et al., 2022). Moreover, activist spaces in the climate justice movement are rife with internal learning opportunities for deepening content knowledge and cultivating wide-ranging skills (Kluttz & Walter, 2018).

Considering the notable expansion in youth climate justice activism this decade, combined with key deficiencies in US formal CCE, it appears evident that youth activists are gaining a deeper understanding of climate justice and related political mechanisms directly

from the movement (Biswas, 2021; Crouzé et al., 2023). Understanding youths' perspectives on the educative dimensions of the climate justice movement can lend critical insight into CCE approaches that more accurately reflect the realities of the intersecting and compounding crises we collectively face, while positioning young people as change agents for a better world (Neas, 2023). Moreover, highlighting youths' counter-narratives is essential for justice-driven systems change in that the stories we tell to make sense of problems fundamentally shape our orientation towards solutions and the futures we may imagine and enact (Trott, 2024a; Trott, Gray, et al., 2023).

The present study

To date, little research has examined how youth climate justice activists themselves conceive of and experience activism as education (McGregor & Christie, 2021). As noted by Mayes (2023) in a recent synthesis of the literature on youth activists' climate justice learning, 'The radical learning at work in youth-led social movements remains under-explored, particularly in relation to what young people are learning and educating others about climate justice beyond formal schooling' (p. 1). This study contributes to this critically important line of inquiry using in-depth interviews with youth climate justice activists in the United States, guided by the research question: How do youth climate justice activists explain and experience the educative power of their activism?

METHODS

Participants

The present study consists of in-depth, semi-structured interviews with 16 youth, aged between 15 and 17, who self-identified as climate justice activists. When asked to report on how they participate in activism (i.e., 'In your activism for climate justice, what types of actions have you participated in?'), young activists engaged in 4–11 ($M = 7.3$) forms of activism, the most common being protests, marches, demonstrations and engaging with public officials (e.g., state and local representatives; see Figure 1). Beyond the approaches to activism listed in Figure 1, one participant added, '*canvassing and text banking for candidates, recruiting people through tabling and flyering, fundraising,* [and] *internal movement work like training and coaching other people*'.

The majority of participants in this study were attending high school, with proportions distributed as follows: 6.25% in 9th grade (age 15); 25% in 10th grade (ages 15–16); 31.25% in 11th grade (ages 16–17); and 25% in 12th grade (age 17), while 12.5% had recently completed high school (age 17). Youth interviewed for this study identified mostly as women (87.5%) with diverse racial backgrounds, including multiracial (37.5%), White (31.25%), Black (12.5%) and individuals of South or East Asian descent (12.5%). Although this study's qualitative findings do not claim to be representative of the US population or climate movement as a whole, women were overrepresented among this study's participants compared to their estimated proportion of the US population (51.1%; United States Census Bureau, 2023a). Additionally, participants in this study were more racially diverse compared to the US population, where 75.3% of residents are estimated to identify as White (non-Hispanic), 13.7% identify as Black (non-Hispanic), 6.4% identify as Asian and 3.1% identify with two or more races (United States Census Bureau, 2023a). In terms of gender and race, this study's participants consist largely of groups (i.e., women; Black, Indigenous and People of Colour [BIPOC]) documented to be more active on and concerned about climate (Ballew et al., 2020; Fang, 2024).

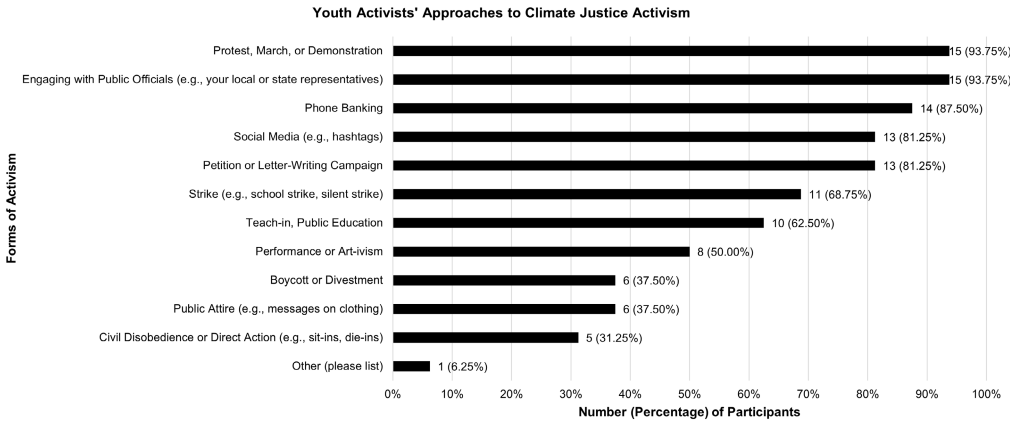

FIGURE 1 Youth activists' approaches to climate justice activism.

Geographically, half of this study's participants resided in the Northeastern United States, with concentrations in areas such as Greater Boston, New York City and Upstate New York, followed by 37.5% residing on the West Coast, encompassing the Pacific Northwest and Bay area, and a smaller proportion resided in the US Midwest (6.25%) and Southeast (6.25%). As such, this study's participants were over-representative of those living in the US Northeast and West, where respectively 17% and 23.6% of US residents live, and under-representative of those living in the US Midwest and South, where respectively 20.6% and 38.9% of US residents reside (United States Census Bureau, 2023b). Urban areas were home to half of the participants, while suburban (43.75%) and rural (6.25%) areas were home to the remaining study participants. Comparatively, this study's geographic distribution exceeds the proportion of the US population living in urban areas (31%) and falls below proportions living in suburban (55%) and rural (14%) areas (Pew Research Center, 2018). The higher proportion of participants in the US Northeast and West maps onto locations documented to have greater concentrations of protest activity in the youth climate movement (Fridays for Future, 2024).

Data collection

Young activists were recruited to participate in this study using online outreach, chiefly by emailing youth climate justice groups and employing snowball sampling techniques. A dedicated recruitment webpage was used to offer prospective participants details about the study and invite them to complete a brief online survey to provide informed consent and collect demographic data and contact information. To explore their experiences in the climate justice movement, in-depth interviews lasting an average of 66.1 min (46.5–86.3 min) were carried out with youth activists via Zoom. Topics explored included the catalysts behind their initial engagement, factors sustaining their ongoing activism and the impacts of activism on their daily lives, relationships and future outlooks. While discussions on the educative dimensions of activism were woven throughout the interview protocol, a distinct segment was dedicated specifically to eliciting participants' perspectives on this topic. This segment encompassed questions such as 'In your view, what is the role of education in the movement for climate justice?' and 'How is the youth climate justice movement educating people?' Interviews followed a semi-structured format that invited participants to elaborate on their perspectives and experiences through unscripted follow-up questions, making each interview unique. Audio recordings of the interviews were transcribed verbatim and reviewed for accuracy prior to analysis. Ethical approval for this study was obtained from the university's

Institutional Review Board, and participation was entirely voluntary. Because providing modest compensation to incentivise study participation is the norm for funded research in the United States, this study's participants were given a $25 gift card to thank them for their time.

Data analysis

To examine participants' perspectives on the educative dimensions of their climate justice activism, reflexive thematic analysis (Braun & Clarke, 2022) was employed. Through this methodological approach, I generated themes by attending to concept coherence, 'meaning-unity' (p. 77) and the distinctiveness of each theme relative to a central organising concept. I began by comprehensively reviewing all 16 transcripts to establish familiarity with the entire dataset. Throughout this phase, I noted any explicit or tangential mentions made by interviewees regarding the educative dimensions of their activism and labelled initial concepts, sometimes using young people's own language through in-vivo coding or providing interpretations of their intended meanings. Examples of codes included 'Goal of activism is education', 'Learning through activism' and 'Teaching and learning through small-scale conversations/info-sharing'. Subsequent phases of coding involved cross-referencing transcripts with initial codes to discern recurring patterns, divergences and commonalities across interviews. This iterative process led to the refinement and consolidation of initial codes into a more concise and coherent set of overarching themes. In addition to conducting line-by-line coding on paper transcripts, a central document was maintained to compile and arrange a list of codes. Following the transcripts, I recorded concise memos for each participant summarising distinctive or noteworthy aspects of the interviews. In the final phase of coding, I arrived at a final set of themes, each encapsulating a core concept, that collectively encompass young activists' perspectives and experiences related to their activism as an educative force for climate justice.

Positionality

Towards practicing self-reflexivity, before presenting this study's findings, I acknowledge my social and generational position as a White, millennial, cis-gendered woman and doctorate-holding, first-generation academic raised and residing in the American Midwest whose perspectives and life experiences have influenced my approach to this research. In particular, my privileged social identities with regard to race, gender identity and professional status, as well as my particular social positioning with regard to age, generation and educational background inevitably shape and constrain how I initially conceptualised this research and how I engaged in data analysis and interpretation.

RESULTS

Young activists as students of the movement: Exposure to climate justice and activism

In describing the origins of their own involvement in the youth climate justice movement, several young activists told of learning about climate justice directly from youth-led climate justice organisations and events. When asked how she first learned about climate justice, Adina (16) said: '*Definitely through the climate strikes and seeing various organisations there, and knowing other kids who were involved*.' Many participants first engaged in activism because

they saw other youth activists and movement leaders saying or doing something that inspired them to know more and become involved. In other words, they were themselves educated by young activists in the climate justice movement. As Laila (17) explained, news coverage on the youth-led Sunrise movement—specifically, a sit-in by 200 young activists pushing for Green New Deal legislation in the office of Nancy Pelosi, then the newly elected US Speaker of the House—drew her attention and shifted her perspective:

> *Before, I was just seeing people post on Instagram, 'use metal straws' and 'thrift your clothes' and guilting people to care about the planet and stuff like that. Then, through Sunrise, I got a different outlook about climate justice. … We should hold these corporations responsible for what they're doing. And then I started to learn that it's all really connected. Climate justice has everything to do with everything else that's messing up the world*.

In recounting how they became involved in activism, several participants told of learning how climate change amplifies injustice, often through youth-led CJ organisations. Their exposure to Climate Justice Education 101 was from their peers. As Eva (17) recalled: '*I first started hearing that view of climate change from the Sunrise Movement … a more intersectional approach and emphasis*[ing] *right off the bat, like environmental justice, it's connected to racial justice and economic justice*.' Importantly, participants explained that the knowledge they gained from the movement helped them to understand and engage with the issue in justice-informed ways. In describing their first action as part of the movement—a school walkout as part of the 2019 Global Climate Strike—Ines (17) explained that hearing speakers on racial justice, LGBTQ rights and women's rights '*really stood out*' due to the movement's '*focus on who's really being impacted and who we need to uplift … so that we can have a more equitable and just future*'.

As Laila (17) and Eve (17) explained, youth activists' efforts helped not only to reframe the issue, but also to imagine systemic solutions:

> [After] *learning how it's intersectional with … all sorts of oppression and justice, I knew that I had to get involved with Sunrise in one capacity or another. Because they weren't just talking to me about 'save the trees' or 'sea turtles are dying from plastic' and all that stuff, they were talking about people's lives, people who have dirty water, unclean air and not even houses to live in because of the structure of them. And just how this is all systematic and how the Green New Deal will help us all*.

> *Before I was involved in* [activism], *I didn't like thinking about climate too much, but when I did, I thought like, 'Oh, if people wanna change the world, they should take bike rides.' Cause that's what science class said. But I think, through the activism, I realised it's very much up to governments and states and legislative change*.

While most described learning about climate justice from youth activists outside of formal educational channels, some told of school spaces that welcomed youth activists and provided a forum for youth-led climate justice education. It was in her 10th-grade science classroom where Maria (17) first learned about climate justice—a topic that truly hit home:

> *It wasn't until my sophomore year of high school that, in one of my science classes, someone from … a* [youth-led] *climate justice organisation in* [my] *area … did a presentation on what climate justice is and how climate justice isn't just about the environment and they intersect with so many other issues, specifically*

> *social justice issues. And that really intrigued me because I was like, 'Whoa.' This is literally talking about the things that I see in my community … that no one really talks about. … The* [major oil and gas company] *refinery is super close to my house. … Growing up, I didn't even know that it was bad for my health or my community, and the toxic relationship that it had with my city.*

Climate justice activism as education for social change

When asked about the role of education in the climate justice movement, most participants emphasised the importance of educating public audiences about the causes, impacts and injustices of climate change as a means to grow the movement. Education was described as 'really important', 'critical' and 'foundational' to the movement's goals. As Ami (age 15) explained: '*I think the big part of the movement is just to educate people about how drastic climate change is and to make them aware of what's going on. I think that is the biggest goal*.' Activism was seen not only as a way to inform people of the multi-faceted challenges posed by climate change, but also as an avenue towards their deeper engagement. '*Education is super important*', Hannah (age 16) said, '*because, I mean, it's hard to learn about policies and other ways to get involved*'. Ultimately, education was viewed as the mechanism by which young people perceived their power to drive tangible change:

> *… By educating more people, you're getting more people involved and therefore pressuring people in power even more saying, 'There are all these people that care about climate change, you should, too.' And I think it makes it more likely for them to listen. I think with bigger numbers and with more people in the movement, it's more likely to get taken seriously.* (Anika, 16)

Participants described numerous ways their activism aims to educate the public, while stressing that protests, marches and demonstrations are just the tip of the iceberg. As Maria (17) put it: '*We like to emphasise that climate justice is not just going to protests and doing things like that. There's space in the movement for literally everyone*.' Like many others, Liv (15) was drawn to the movement by learning about how climate justice transcends traditional environmentalism. She emphasised that activism is about finding and doing what you enjoy, which for her was educating people:

> *I was very excited to … become an activist in this space after I learned that it's not just, 'Oh, stop using single-use things', and 'start living a more climate-conscious life', but actually going out there and fighting for stopping freeway expansions and getting more electric cars and stopping carbon emissions. There's different sides to the movement … and you can really find your place in whatever you enjoy doing. … I spent a couple of months trying to figure out what I enjoyed about climate change and climate justice, and learned that I love educating people, and I like teaching them about climate change and doing it in a way that won't make them nervous … and* [explaining] *what they can do—specifically with youth and uplifting their voices*.

Still, protest was seen as an important way for the movement to gain visibility, raise awareness and change the public conversation. As Adina (16) said: '*Protests and direct action serve as an education*[al] *opportunity to raise awareness and to present the issue to people*.' Importantly, when major protests garner news coverage, young activists viewed this as a key avenue to reach a broad audience—even if the result is just planting a seed of curiosity. '*If we ever have*

any news coverage or media presence', Jane (15) explained, '*then that's another way that we're spreading the word*'. When asked how the movement is educating people outside of schools, Arya (15) and Devi (17) responded:

> *When people see thousands and millions of children on the streets protesting for something that matters to them, I think, even if that doesn't make you believe in the science, it will make you question what's happening. … Our job is to keep raising as much awareness as possible and changing as many opinions, and I think that's how we grow more and more support and how we bring actual change*.
>
> *I think that making big protests by nature should be somewhat informative. They should tell people about the cause and why you're doing what you're doing, all of those things. I also think that just getting in the news by nature makes people more informed because when they hear about a big protest, it draws their attention to an issue, and that makes them more informed*.

In describing their activism, participants referenced a range of strategies and tactics to educate people, including organising and participating in protests, marches, (school) strikes and demonstrations, engaging in electoral politics, policy advocacy and pushing for legislation (e.g., via public awareness campaigns, phone calls, emails, public comment, petitions, banner drops), and working within and through their schools to promote climate action (e.g., greenhouse gas inventory, school charter, climate action plan) and climate (justice) education (e.g., curriculum development). Several participants described taking on leadership roles (e.g., establishing school clubs), organising major events behind the scenes (e.g., permitting, recruitment) and forging partnerships across organisations to amplify each other's efforts. Major channels for educating the public noted by participants included spreading awareness through social media, garnering news coverage and conducting relational organising with friends and family. When asked how the climate justice movement is educating people, young activists often listed a range of approaches:

> *So, in terms of educating people in general, there's various different tactics people use. People do community education events, like setting up a table somewhere or like the street fair or something to talk about stuff, online activism, sharing information and infographics*. (Adina, 16)
>
> *We do teach-ins, we put out resources, we try and make things on social media accessible to people in terms of making whatever project we're working on informative. … Lots of digital resources*. (Devi, 17)
>
> *There are people doing trainings and education seminars and doing interviews like this, and going on talk shows and things like that where they can try to* [raise awareness]*. … And* [others] *go to schools—like elementary schools, and middle or high schools—and try to talk about the climate crisis in a way that they can understand it. So, I think that there are people who are trying to make it more understandable to people*. (Laila, 17)

Young activists as climate justice educators within and beyond school settings

Youth interviewed for this study were both the learners of and educators for climate justice in school settings. Once involved in the movement, several young activists explained that

they were part of developing curricula for themselves and younger peers. Some described school visits and one-off presentations, while others were collaboratively generating modules and units to be adopted and delivered by their organisation or teachers in their school districts. As Adina (16) explained: '*In terms of talking to kids and young people, for a while I was involved with an organisation that would go into schools and teach a workshop on climate change or a specific climate issue*.' Ines (17) was invited by a teacher to speak to high schoolers on youth activism, and Jane (15) was collaborating with teachers and school administrators to develop a climate justice curriculum:

> *Recently, I spoke to some of the 9th grade classes at my school because the teacher was like, 'Do you want to tell them about your activism and how they can get involved?' So, not just telling them what the problem is, but telling them what the solutions are, and that the solutions are possible and that they can do stuff to help and to advocate for those solutions*.
>
> *For Earth Week next year, I'm designing a middle school curriculum at my school with a couple of science teachers, health teachers and the head of the middle school to try to bring attention to the climate justice*.

Middle school was a common focus of youths' educational efforts. As Liv (15) explained: '*Educating youth on … how they can change the world from a young age is something that I really, really want to do and want to push for*.' To that end, she was also involved in creating a climate-focused curriculum:

> *I helped my school district create a curriculum with a couple other high school students … to be taught in all the middle schools that hopefully we'll be implementing next year, to talk about youth climate change and climate activism and that it can start at any age. … That was probably my biggest success story, specifically because we came together as a group of 18 high schoolers that were all organising online* [during the pandemic]*, and finally figuring out that this curriculum is what we wanted to make, and getting it hopefully implemented is very, very exciting*.

Aside from being the climate justice educators, young activists also occupied the role of facilitating connections to bring speakers and educators into schools to discuss climate change, climate justice and activism. For example, Jane (15) said: '*We have a School Ambassador Program …* [where] *we're implementing climate curriculums … to be taught through environmental clubs in the schools, so we're reaching people that way*.' As Adina (16) explained, her youth-led climate justice organisation had a position dedicated to responding to speaker requests, including from teachers and schools:

> *One of the* [leadership] *roles I had…* [was] *matching people up to various requests we would get for speakers or panellists. … We got a lot of requests from schools and teachers to come have someone speak about the experience of youth activism*.

Beyond the classroom, young activists spoke of other ways they were raising awareness and pushing for tangible change within their schools. Several described advocating for more sustainable school operations. They noted that this was one way to enact change on a local level. For Ami (15), '*spreading awareness and educating people*' encompassed '*working on curriculum and getting free bus passes for students*', as well as:

> *… working with our school board to get* [them] *to do a greenhouse gas inventory of the district, and to make a goal for net-zero emissions and a climate action plan. Working on that has definitely felt really amazing cause it's a concrete thing that could make a difference*.

Within and beyond school settings, young activists described serving as informal educators in their wider networks and communities through smaller-scale conversations with family and friends. Many emphasised '*relational organising*' or, as Adina (16) explained: '*Talking to the people in your life, talking to the people in your community, 'cause that definitely is where the most impactful conversations can happen. Just one-to-one*.' This approach to education was seen as more effective because, as Huan (15) put it: '*You organise faster with people who you know, people you trust*.' Having conversations with close others was viewed as a key movement-building strategy because, as he went on to explain: '*Movements grow through conversations and relationships, so it's not too glamorous. It's just people talking to their friends, their neighbours, their family members. That's how you go educate others*.' As others explained:

> *I think one of the most important things about climate activism is just talking with people about it, 'cause I think that's a huge issue. A lot of people don't talk about it, and then people just don't think it's like an issue they should be worried about, so on a very small scale, there is that*. (Laila, 17)

> *A lot of the education that I'm receiving from* [activism]*, I've brought over into conversations with my parents and my family and friends, and so … I don't have to compartmentalise and say, 'This is climate change and climate justice, and this is the rest of my life', and they've kind of mixed and become one thing together, and I really love that*. (Liv, 15)

Teaching and learning within youth activist spaces: Beyond climate justice awareness

Once young activists joined the climate justice movement, they described several ways their activism deepened their skills and knowledge. At times, participants explained that being an activist translated into additional learning opportunities about climate change, climate justice and specific facets of global to local issues. As Adina (16) explained: '*I probably learn the most now just from being in activist spaces, and people sharing articles and stuff like that*.' She went on to explain that trainings can help shed light on issues occurring in her local region:

> *I'm involved with all sorts of trainings. I just went to a training for the* [Local River] *dams. … I think it's really good to connect people with their local issues. … It's also taught people how to make change, how to get things done, how to work with a team. That's just universally good knowledge. And I think it's filled in the gaps … with a lot of the lacking education*.

The educational opportunities described by participants had a range of target audiences. Eva (17) spoke of the importance of, on the one hand, educating the public through externally facing initiatives, as well as the internal learning that goes on within movement spaces:

> *I definitely think connecting with people who don't think about climate justice as a real issue that's impacting their everyday lives* [is important]*. I think that's*

> *something we wanna try to do more of is talking to random people … about how climate change has a material impact on their lives and their futures. I think education is important in that way. And also, internal education in terms of training people in organising tactics or just knowledge about social movements in general. I just went to a training a week ago that was two hours about the history of the Israel–Palestine conflict and how it intersects with climate justice. And I think having educational opportunities like that really strengthens movements*.

Several young activists described how their involvement in activism broadened their skillset in organising, communication, teamwork and conflict resolution. As Devi (17) explained: '*I've definitely learned a lot in terms of developing skills in organising and how to do the actual thing, like the steps that you have to take to get to an outcome. … I'm able to grow skill-wise, as an organiser, because of the work that I'm doing*.' Adina (16) emphasised the importance of learning how to do activism '*from doing it*'. Similarly, Devi expressed that her activism deepened her knowledge and confidence in being an agent of change:

> *Part of every organisation I've ever been part of* [has been] *putting on trainings and just teaching people skills, both in doing the work and explaining things as you're going. And then more formalised stuff of like, 'We're gonna have a training or we're gonna have a meeting, and we're gonna teach you how to do this thing.'*
>
> *I think that there was already that fundamental idea planted in my head of, 'Oh, you're able to create change if you do something.' … So, I think I already had an inkling of the idea that I could do something, but I really learned how to do it once I joined an organisation*.

In describing the knowledge and skills they gained through activism, several participants noted their relevance to everyday life and relationships. As Eve (17) summed it up: '[Activism] *has also taught people how to make change, how to get things done, how to work with a team. That's just universally good knowledge*.' For Devi (17) and Adina (16), honing skills in communication, transformative justice, being accountable to others and engaging in generative conflict has had a positive impact within and beyond activist spaces:

> *I think that in organising, you learn about a lot of structures and processes of communicating. So, how to be an effective communicator, how to do things in a more equitable way that you might not necessarily learn in normal life. For example, I feel like I'm always learning more about transformative justice work and how to be actively accountable in your work. And I feel like all that translates to day-to-day life, and it's definitely helpful in my personal relationships*.
>
> *Another skill I've learned in activism is the idea of generative conflict, and being able to really deeply disagree with someone in a way that's productive and doesn't destroy your relationship. … There's all of those kinds of skills I've learned in activism—about how to just be in spaces with other people—that are really helpful in real life*.

As Liv (15) explained, becoming involved in climate activism has been a life-altering experience. For her, gaining skills is only one part of a more encompassing transformative process:

> *I've learned a lot of really, really valuable skills* [from] *interpersonal connections to the organising, which is really awesome. And it's one of those ways that*

> *climate change and climate organising isn't just one specific thing and it impacts every single part of your life*.

More than one young activist felt that they learned more from activism than from school. As Adina (16) explained: '*I have learned so much just from being a part of organising spaces, sometimes I genuinely think I've learned more impactful, useful, concrete things than I learned in all of middle school*.' Similarly, Sam (15) said: '*I've learned so much more from Sunrise trainings in the last year than I have from school, which is so sad. And I wish that that wasn't the case, but it is*.' For Ami (15), their activism not only deepened their communication and technical skills, but also led to the opportunity to gain vital knowledge about democratic institutions and processes:

> *I've learned a ton of amazing skills from doing climate action. … I would even say I've learned a ton more than I've learned doing school or doing anything else. I have learned about how a government works, I've learned about policies, I've learned about how to talk to people and how to do all sorts of things on the internet and make all sorts of flyers and schedules and forms … a lot of things that I would have never done before*.

Finally, young activists described several examples of sharing their newly gained skills with others. For example, Eva (17) noted that skills learned in one organisation were readily transferrable to other activist spaces, saying: '*I've learned a lot and been able to bring a lot of that knowledge about just how to organise into other organisations I'm a part of*.' In other words, young activists became educators not only for climate justice but also for social change action. For Sam (15), becoming an organising educator was a core activity built into her climate justice organisation. As Arya (15) explained, by teaching young people how to take action for climate justice, youth activists are cultivating valuable skills that enable other young people to exercise their citizenship:

> *Our theory of change is something called the Act–Recruit–Train cycle. Basically, we take action. And then, from there, we recruit people to join. And then, those people that we recruit, we train them to take action. So, learning and teaching each other is a central part of the movement and how we continue to grow the movement*.

> *I'm organising with Fridays for Future, and we're working with a coalition who's advocating for a bill that hasn't yet been introduced to Congress, but it will be soon. And we're working on organising a national youth lobbying team for that, and we've gotten a very positive response so far. We've led a couple of trainings* [and] *we've had big engagement across the country. So, I would say that's really successful because it's teaching … kids about how to lobby and* [take] *leadership and giving them skills that they can really use anywhere as an adult and just as a member of our society*.

DISCUSSION

This study explored the perspectives and experiences of young activists on the educative dimensions of youth-led climate justice activism. First, participants viewed education as a core function of the movement that is foundational both to movement-building and generating societal change to combat climate injustices. Most described first learning about climate justice directly from the movement, as well as learning a variety of skills (e.g.,

organising, communication, conflict resolution) through their engagement in activism—skills they noted were transferable across settings and relevant to everyday life. Young activists also described their role as educators through their movement participation. While raising awareness with the general public was an important goal, they also described engaging in relational organising with family, friends and peers. Importantly, many described working with schools to educate children and youth, including by collaborating with other activists, teachers and school administrators to develop climate justice curricula. Beyond spreading knowledge of climate in/justice, young activists also became educators on action and social change processes—noting that learning about governmental institutions and political processes enabled them to exercise their citizenship and equip other young people to do the same. These findings have implications for developing climate curricula that not only attend to the scientific and technological dimensions of the climate crisis, but also enable learners' justice-driven action and democratic participation.

Learning from and through youth climate justice activism

In this study, many young activists reported that their initial exposure to climate justice, as a concept and a goal, originated from the youth climate justice movement. Many observed or took part in a school strike, rally or march, where they learned about the intersections between climate change and other human rights and social justice issues (e.g., women's and LGBTQ rights, racial injustice). As previous studies have found (e.g., Verlie & Flynn, 2022), learning about climate injustices—and in particular, the ways in which climate change worsens existing inequalities—provided an avenue for youths' deeper engagement. Young activists in this study noted that education is critical to the movement's goals and described numerous strategies and tactics intended to raise public awareness, grow the movement and put pressure on policymakers and other power holders to enact transformational change (Holmberg & Alvinius, 2020; Neas et al., 2022).

Beyond the movement's outward-facing educational goals (e.g., targeting public audiences), participants in this study described a range of internal educative processes that took place between activists and within movement spaces (Mayes, 2023; Tattersall et al., 2022). Young activists explained that their movement participation deepened their knowledge about climate change, climate justice and specific facets of local to global issues. Moreover, young people explained that their activism gave them the opportunity to gain or deepen a range of valuable and universally applicable skills such as communication, teamwork and conflict resolution. As noted by Ballard and Ozer (2016), 'when youth develop the knowledge, skills, and inclination to address social issues in their communities, they can experience personal benefits at the same time as benefitting others around them' (p. 224). Previous studies have found that engaging in activism contributes to youths' (self-)knowledge, critical consciousness, skill-building, empowerment and capacities to drive systemic change (Carey et al., 2021; Christens et al., 2023; Morgan et al., 2024). In this 'school of life', many felt that they learned more through activism than from traditional schooling. This finding echoes previous research—including the contents of a March 2022 special issue of the *Australian Journal of Environmental Education* focused on school strikes for climate—documenting that young activists are learning 'a dynamic suite of skills and critically applied knowledge' through their participation in strikes, 'often in stark contrast to the insufficient climate change education taught in schools' (Verlie & Flynn, 2022, p. 4). A noteworthy finding of the present study, however, was the significant crossover between youths' climate justice activism and their schooling, where the formal classroom became a space for raising awareness of climate justice with teachers and classmates alike. Towards reimagining CCE for climate justice, findings from this and previous studies support the notion that educational institutions

must reassess their limited estimations of students' capabilities, given the reality, highlighted by Verlie and Flynn (2022), that:

> Many young people today are more than capable of seeking out and understanding climate science, making sense of its implications through sophisticated socioeconomic analyses, courageously engaging politically with varied injustices, and organising themselves to take critical and reflective collective climate action. (p. 4)

A previous article in this series (Trott, 2024b) explored the recommendations of these young climate justice activists for school-based climate change education. In brief, young activists stressed the importance of justice-driven and action-oriented climate education for learners for all ages, aimed at cultivating the knowledge and skills needed to 'actively contribute to urgently needed, justice-minded, systems-level change' (p. 1). For more in-depth recommendations for school-based climate justice education by the youth interviewed for this study, see Trott (2024b).

Educating for climate justice and action

This study found that young activists were not only students of the movement who gained important knowledge and skills through their participation, but also, by engaging in activism, they became climate justice educators to those around them—including public audiences, power holders, children and young people in school settings, and family, friends and close others (Verlie & Flynn, 2022). Once the young people in this study joined an organisation, they often came to occupy the role played by the youth activists whose messages first inspired them to join the movement. The literature increasingly recognises young activists as educators. 'Including young people themselves in the category of educators', as Bowman and Germaine (2022) advocate, enables deeper insight into the multi-faceted ways that 'climate strikes represent an educational opportunity in which young people share, support and collaborate as educators and learners' (p. 70). Similarly, noting that 'young people are becoming climate change educators', Verlie and Flynn (2022) pointed to key educational gaps addressed by youth activists to enable climate justice action:

> Students are becoming adept at teaching themselves the knowledge they need to engage meaningfully outside of class time. … Youth climate strikers organise around the premise of 'climate justice' which requires multidisciplinary knowledges, yet climate justice … is seldom represented in curricula. (p. 4)

Indeed, many young activists in this study described a particular focus on schools as spaces for cultivating climate justice education. Beyond organising school strikes and walkouts with their peers, they were motivated to develop and deliver presentations and curricula focused on climate change, climate justice and activism. Several described working with school administrators and teachers to create instructional materials (e.g., Kowasch, 2023), while others fostered connections between young activists and teachers who sought speakers for their classrooms. However, not all young people in this study found the classroom to be a hospitable place for raising climate justice awareness. In the United States, there is significant geographic variation in the quality and content of climate change education and levels of support for climate policies (NAAEE, 2023; Worth, 2021). With this in mind, the young activists in this study emphasised the importance of relational organising, or simply

talking about climate change and climate justice within their close relationships (e.g., family and friendship networks).

Another facet of youths' educator role was sharing the skills they'd gained through their climate justice activism with groups working on other issues, as well as equipping other young people to engage in organising, advocacy and activism. For example, young activists shared their skills with other organisations they were a part of, as a means to advance activists' efforts across issues. Further, in classroom and community settings, the young activists in this study told of educating children and young people about how to engage in social change processes, including organising and policy advocacy. As Tattersall et al. (2022) observed in their study of youth activists in the School Strike for Climate movement: 'Organising helped students interpret the world—it was where strikers could explore how the system worked, to question the role they wanted to play, and imagine how they could do things for themselves' (p. 52). As participants in the present study emphasised, these skills for democratic engagement are critically important to people of all age groups. Towards envisioning justice-driven CCE informed by youth activism, formal educational institutions should strive to be considered—like social movements already are—as 'schools of democracy and social justice' (Melero & Gil-Jaurena, 2019, p. 333; see also Mayes, 2023) by working in solidarity with young people to imagine, advocate for and shape their collective futures through sociopolitical engagement. Doing so, as Rousell and Cutter-Mackenzie-Knowles (2020) have asserted:

> … requires the development of new modes of climate change education which are open to radical and visionary alternative[s] for the future, necessarily drawing on practices associated with environmental activism, social and political intervention, digital innovation, citizen science, and the creative arts.
>
> (p. 13)

Limitations

This study has important limitations. First, interviews were conducted with a small number of young activists in the United States whose views and experiences are not expected to represent the entirety of the youth climate justice movement, which is global in nature. Second, most participants were affiliated with well-known youth-led climate justice organisations (e.g., Sunrise, Fridays for Future), so their perspectives on the educational dimensions of their activism are inevitably shaped by the specific modes adopted by these organisations. Still, through the use of in-depth, semi-structured interviews, this study sheds light on the specific ways these young people perceived their activism to be educational. In-depth interviews invited young activists to address key questions of interest in their own words, while the semi-structured interview format encouraged their elaboration on experiences of particular relevance to the study, but which may not have been anticipated in advance. Future research is recommended that expands on these key findings with young activists in a range of contexts 'across "uneven" geographies of privilege and injustice' (Mayes, 2023; Walker, 2020), particularly in the US Midwest, Mountain West and rural areas, which were under-represented in this study, as well as in Global South contexts, where the perspectives and actions of many youth leaders in the climate justice movement are under-recognised and sometimes actively erased (Barnes, 2022). Finally, this study was conducted to explore self-identified young activists' views of the educative power of their activism, but did not explore the views of non-activist youth. To more comprehensively explore the educational dimensions of youth activism, future research is recommended that accounts for the views and experiences of young people who do not identify as activists as well as those not actively involved in the youth climate justice movement.

CONCLUSIONS

We currently live in an age of school strikes, in which the benefits of school attendance are weighed against the necessity of youth activism to pressure political leaders to take concerted action to ensure a safe and stable climate for today's young people and future generations. In this equation, the potential advantages of youth activism are often cast as ecological rather than educative. This study adds to the growing literature (e.g., Malafaia, 2022; Mayes, 2023; Vamvalis, 2023) documenting that the transformative possibilities inherent in youth activism and community organising are simultaneously planetary and psycho-educational in scope. Not only are young people learning a great deal about climate, justice and action from their political participation, but in the process they are also positioning themselves in a range of critical educational roles. Young activists, taking seriously the science of climate change and its inequitable and unjust societal implications, are disseminating vital climate justice awareness near and far to activate their peers and exert pressure on power holders. Simultaneously, they are honing and sharing a range of valuable life skills that enable them to enact their citizenship in a societal context that is structured to limit their agency as decision-makers and leaders of change for a better world. Educational institutions should strive to take seriously the potential benefits of activism—both for young people and our collective planetary futures.

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The author has no conflict of interest to declare.

DATA AVAILABILITY STATEMENT

Research data are not shared.

ETHICS STATEMENT

The research undertaken in this paper was reviewed by the University of Cincinnati's Institutional Review Board prior to data collection and fully complies with the university's ethical standards.

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