



## Table of Contents

1: Introduction .....	2
2: EU context.....	3
3: Tacking eco-anxiety: some themes from recent literature .....	4
4: Tacking eco-anxiety: examples from practice .....	6
5: Challenges .....	8
6: References.....	10

Cover image from Coffey et al ( 2021)

# Eco-anxiety and Wellbeing: the policy challenges

## Input paper for Working Group *Learning for Sustainability* webinar

---

### 1: Introduction

This input paper offers an initial discussion in relation to the topic of the upcoming Working Group webinar on eco-anxiety and wellbeing, taking place on 26 September 2023. This paper is structured around desk-research and conversations with the working group coordinators.<sup>1</sup>

Eco-anxiety can be understood as a complex emotional and psychological response to environmental concerns, particularly those related to climate change. It is not classified as a medical condition in the way that a specific mental health disorder might be, but it does have social, psychological, and emotional dimensions. While it may not be a new concept and there is no fully agreed definition of what it actually encompasses, the term itself has gained popularity in recent years, reflecting the growing awareness of environmental issues and their potential impact on mental health.<sup>2</sup> People of all ages can experience eco-anxiety, and it may manifest itself differently in various age groups and individuals depending on factors such as awareness and activism in environmental issues. However, Wu et al (2020) have noted that globally *young people are disproportionately affected by climate anxiety* and that ironically where climate anxiety is concerned *pervasive data gaps preclude our ability to act for policy solutions*.<sup>3</sup> Additionally, Buchanan, Pressick-Kilborn & Fergusson (2021) argue that climate change has generated distress and anxiety, particularly among children. They argue that pessimism about climate change and the future tends to develop during late childhood and intensify through the teenage years – they found that many young people expressed fear, sadness, and anger, along with apocalyptic and pessimistic views about the planet's future.

One significant difficulty when considering the term – and related ideal such climate-anxiety – is that eco-anxiety is too often presented in the literature only through a *medico-social lens*. Baudon (2021) for instance discusses eco-anxiety in terms of *possible therapeutic interventions to treat clients with eco-anxiety in individual or group therapy, to identify how interventions suggested fit within various psychological approaches or perspectives* (p.82).

It is important from an education policy perspective to take a more expansive view and to focus as Lawrance et al. (2022) suggest not just on young peoples' *psychological responses and mental health (particularly anxiety symptoms)* but also on how *enabling their sense of agency to effect change is crucial for designing effective interventions and policies that consider their unique experiences* (p.e628).

There are clear implications in this last comment for the value of supporting teachers and schools to deal with eco-anxiety at the school level. Particularly in ways that are *purposefully structured to increase*

<sup>1</sup> This paper was prepared by Conor Galvin, PhD, as input for the meeting of the EU Working Group on schools: Learning for Sustainability on 27th September 2023. For more information about the European Commission's work on learning for sustainability see: <https://education.ec.europa.eu/focus-topics/green-education/learning-for-environmental-sustainability>

<sup>2</sup> See Pihkala, P. (2020). Anxiety and the ecological crisis: An analysis of eco-anxiety and climate anxiety. *Sustainability*, 12(19), 7836.

<sup>3</sup> [https://www.thelancet.com/journals/lanph/article/PIIS2542-5196\(20\)30223-0/fulltext](https://www.thelancet.com/journals/lanph/article/PIIS2542-5196(20)30223-0/fulltext)

human agency and facilitate climate action and supported by [a] social identity model of pro-environmental action (SIMPEA<sup>4</sup>) (Wang et al. 2023, p4).

In short, eco-anxiety is best considered and addressed from a *social challenge perspective* based on concern for collectives (e.g., humankind, future generations). This paper works from that conditional assumption. Addressing eco-anxiety requires a holistic approach that includes education, support networks, and actions to address environmental and sustainability concerns. It is essential to provide a safe and empathetic space for individuals, especially young people, to discuss their anxieties and channel their concerns into positive actions for the environment. Schools and teachers – with the right support and guidance are particularly well-placed to do this.

## 2: EU context

There is still much to be done to bring concerns for eco- and climate-anxiety onto the research agenda of the European Union, in particular as it relates to education. However, useful data and initiatives to date by the Commission would include:

- **Gauging Public Awareness:** In both the EU *Just Transition* and the EU *Climate Pact* emphasis is placed on the importance of raising public awareness about climate change and its impacts. This includes acknowledging the emotional and psychological toll that environmental concerns can have on individuals – a point made for example in a recent posting to the Commission’s Climate Pact website titled *Anxious about climate change? Here’s what you can do about it.*<sup>5</sup>

It also undertakes survey work on citizens’ perceptions of the climate crisis and change. For example, a recent Special *Eurobarometer* survey noted that 93 % of the respondents to a survey conducted in the 27 EU Member States survey believe that ‘climate change’ is a serious problem at this moment. In a list of 11 problems, citizens ranked climate change as the world’s third most serious problem (17%), after ‘poverty, hunger and lack of drinking water’ (20%) and ‘armed conflicts’ (19%); additionally, 63 % of people who participated in the survey said that they had been taking individual action to fight climate change over the past 6 months (EPRS 2023, p.2). Eco-anxiety is not specifically addressed in this survey but the climate change responses are a good proxy for the scale of concern.

- **Research on Climate and Sustainability under Horizon Europe and Erasmus+:** These EU’s research and innovation programmes have funded various projects related to climate change and sustainability. While not solely focused on eco-anxiety, these programs have supported research examining the full impacts of climate change, including stress, anxiety, mental health issues, and active response. The *Horizon Europe* programme, for instance, has a dedicated call on climate change and sustainability education; its *LIFE* programme 2021-2027 is divided into four sub-programmes: “Nature and biodiversity”, “Circular economy and quality of life”, “Climate change mitigation and adaptation” and “Clean energy transition”. The *Erasmus+ Teacher Academies*, an action within the framework of the European Education Area support networking and cooperation between teacher education institutions and training providers to develop teacher education. Three of the academies launched in 2022 with a duration of 3 years have a specific focus on sustainability and education for transition.<sup>6</sup> Eco-and/or climate-anxiety features prominently in these.

<sup>4</sup> A term drawn from Fritsche, I., Barth, M., Jugert, P., Masson, T., & Reese, G. (2018). A Social Identity Model of Pro-Environmental Action (SIMPEA). *Psychological Review*, 125(2), 245–269.

<sup>5</sup> See [https://climate-pact.europa.eu/news-and-events/news/anxious-about-climate-change-heres-what-you-can-do-about-it-2023-01-30\\_en](https://climate-pact.europa.eu/news-and-events/news/anxious-about-climate-change-heres-what-you-can-do-about-it-2023-01-30_en)

<sup>6</sup> See <https://education.ec.europa.eu/news/meet-3-erasmus-teachers-academies-projects-on-sustainability>

### 3: Tacking eco-anxiety: some themes from recent literature

Three texts are selected for their general interest and relevance here: a paper by Coffey et al (2021) that presents a scoping review which critically evaluated and synthesized the scholarly literature on eco-anxiety; *Teaching in the Anthropocene: Education in the Face of Environmental Crisis* (2022) from Farrell, Skyhar & Lam (eds.) which offers a strongly educational focus on eco-anxiety and its implications for well-being; and Maria Ojala's *Climate-change education and critical emotional awareness (CEA): Implications for teacher education* (2023) – again, a paper with particular relevance to well-being in the face of eco- and climate-anxiety.

In their paper on *Understanding Eco-anxiety* Coffey et al (2021) present a systematic review of recent literature of in the area of eco-anxiety and seek to identify knowledge gaps. They argue that climate change is a grave global health threat, affecting public well-being and mental health, giving rise to phenomena like eco-anxiety. They note that the Australian Medical Association acknowledges the serious health consequence of eco-anxiety – particularly for vulnerable populations. They also note that people in general, globally, are increasingly reporting feelings of fear, hopelessness, and anger as they witness climate change's impact on themselves, their children, and future generations. Among the shortcomings they observe is that there is limited comprehensive research on eco-anxiety in response to what they term *climate change-induced trauma* – deep feelings of loss, hopelessness, and anger resulting from witnessing the effects of climate change. To counter this, they note that eco-anxiety was also reported in various studies they examined – if to a considerable lesser extent – to catalyse positive emotional responses. These positive emotions or behaviours reported in various studies were feelings of hope, empowerment, and connection, particularly when associated with collective actions. These feelings, they argue, can be a source of motivation for active and positive engagement that focus on mitigation efforts. This is a key point for educators and education policy makers.

The key characteristics of eco-anxiety which they observed included a significant focus on youth (aged 18-35), who demonstrate heightened responses to climate change's mental health impacts. This can include PTSD, depression, and sleep disorders. Gender differences also emerged as a characteristic detailed across multiple studies with females and younger individuals reporting more distress and anxiety about climate change compared to older males, and with women displaying higher stress levels and greater post-traumatic stress disorder rates following disasters. Although Indigenous perspectives were not the primary focus of studies reviewed, it was suggested that Indigenous groups in vulnerable geographical areas may be particularly susceptible to climate anxiety due to their close ties to the natural environment and cultural practices. Moreover, those deeply engaged with environmental issues or nature – either for personal or cultural reasons – appeared more prone to developing eco-anxiety. Furthermore, individuals directly affected by climate change's physical consequences – such as injury from extreme weather events or displacement due to rising sea levels and droughts – were suggested to be at higher risk of experiencing stress and anxiety related to climate change. Naturalists and climate scientists were identified as particularly susceptible to eco-anxiety due to their extensive knowledge and emotional connections with the natural world.<sup>7</sup>

In sum: in their study Coffey et al. critically review existing literature to better understand the emotional responses associated with eco-anxiety and the range of terminology in use to describe often overlapping ideas and concerns. Their study sheds valuable light on the nature of eco-anxiety, a term they observe *is gaining prominence but still lacking a clear definition*. It is, they remark, variously

<sup>7</sup> In his seminal paper on this topic, Glenn Albrecht introduced this topic as one of a number of what he termed psychoterratic syndromes and ascribed it particularly to this group. See Albrecht, G. (2011). Chronic environmental change: Emerging 'psychoterratic' syndromes. *Climate change and human well-being: Global challenges and opportunities*, 43-56.

described as *chronic fear of environmental doom, mental distress due to worsening environmental conditions, or anxiety triggered by the ecological crisis*. Other related terms they document include *ecological grief, solastalgia<sup>8</sup>, eco-angst, and environmental distress*.

The second text considered here is Alysha Farrell, Candy Skyhar, and Michelle Lam's edited publication *Teaching in the Anthropocene: Education in the Face of Environmental Crisis* (2022). This critical volume presents various perspectives on teaching and teacher education in the face of the global climate crisis, environmental degradation, and social injustice. The book presents research and practitioner experiences across different educational levels, highlighting the value of practical knowledge. *Teaching in the Anthropocene* is argued to call for a reorientation of the aims of teaching so that we might imagine multiple futures in which children, youths, and families can thrive amid a myriad of challenges related to the earth's decreasing habitability. Referring to the uncertainty of the time in which we live and teach, the authors and editors all use the term Anthropocene to acknowledge various anthropogenic contributions to the climate crisis and to consider and reflect on the emotional responses to adverse climate events.

The alternative pedagogies presented in the book emphasize student agency, well-being, emotions, and mental health. They do so predominantly by drawing from arts-based practices and shifting away from cognitive-focused learning. One of the key arguments in the chapters that address wellbeing relates to the importance of acknowledging and prioritising students' wellbeing as a way of addressing many of the challenges of the Anthropocene. The book implies that a focus on holistic wellbeing in education can result in more engaged and motivated learners. What is perhaps most interesting about the work is the emphasis many of the contributors place on aspects of agency and the building of hope as key elements in alternative pedagogies that engage with issues such as eco-anxiety and social justice in general within the framework of a just and meaningful education.

The third piece discussed here is Maria Ojala's *Climate-change education and critical emotional awareness (CEA): Implications for teacher education* (2023). According to Ojala, "CEA is a concept that combines insights from emotion research and critical social science". Ojala underscores the particular importance of CEA in teacher education, especially for educators addressing climate change and sustainability issues. She argues that students in initial teacher education should acquire CEA through the following components: (i) learning about emotions and their complex relationships, (ii) learning how to verbalise and respond to emotions; (iii) awareness of the latest research about emotions; (iv) awareness of how people cope with and regulate emotions; (v) understanding of how emotions and coping are impacted by external aspects at the social-psychological, cultural, and structural levels. Acquiring in this way CEA will not only aid teachers' own understanding but help them promote it among their future students, as many young people experience emotions like worry related to climate change that can impact their learning. This argument centres on the idea that this equips educators and students alike to tackle sustainability challenges in daily life and professional roles.

Ojala advocates the value to educators of building a research-based perspective towards emotions and their influence on students' well-being and learning. The article also highlights that while a psychological approach to emotions in education is important, it is not enough. The political nature of much of the engagement around climate change and sustainability issues requires the integration of critical theories from fields such as sociology and educational philosophy. To address this Ojala proposes the components of CEA mentioned above and suggest that these should be key features of every teacher education programme.

Ojala emphasises that CEA should not aim to impose 'correct' emotions but rather equip teachers to foster a research-based and critical approach to emotions, allowing students to engage with climate

<sup>8</sup> Emotional or existential distress caused by environmental change. It is best described as the lived experience of negatively perceived environmental change.

change demands. Ultimately, the goal is to empower teachers to similarly empower their students to participate in the transformative process required to address climate change effectively.

#### 4: Tacking eco-anxiety: examples from practice

Two interesting examples of practices to address eco-anxiety are presented in this section.

##### Example 1: The Pedagogies of Hope Approach

In "Naturally enough?: Children, climate anxiety, and the significance of hope" (2021)" John Buchanan, Kimberley Pressick-Kilborn, and Jennifer Fergusson share insights derived from their roles as educators specialising in sustainability education. Drawing on their expertise and a thorough analysis of existing literature, they introduce their innovative teaching methodology, known as the *Pedagogies of Hope*, which was designed to empower children in effectively addressing eco- and climate-related anxieties.

Their *pedagogies of hope* approach at its most basic seeks to cultivate hope and contribute to building children's confidence and resilience. Allowing students to share their feelings about climate change without judgment, involving them in environmental projects, and using experiential and arts-based teaching methods are among the practices they recommend. Ultimately, the combination of hope and agency can, they argue, empower young people to take meaningful actions to address climate change and contribute to a sustainable future.

They make the case for approaching the challenge of teaching children to deal with eco-anxiety by leveraging three elements of a pedagogy of hope (goals, pathway thinking, and agency) and adopting an outcomes-based pedagogy (with its intended assessment) along with associated support, including confidence-building, as the means to achieve this objective. And as noted earlier at the centre of the proposed pedagogy, they place the capacity for young people to take action. They term this *sustainability engagement*.

Their overall rationale and is then developed thorough three recommendations for practice and policy:

- Recommendation 1: the need for a classroom focused on sustainability to preserve and protect not only the environment but also the well-being of students. Support for young people in addressing environmental challenges is crucial. Providing this would seem to be a priority.
- Recommendation 2: classroom members should engage in protest, to voice their concerns, take proactive actions, and find like-minded individuals. Teachers will need to play a central role in providing guidance and leadership in this process, even if it challenges the status quo. This is seen as difficult in ways but essential to the achievement of transformational change.
- Recommendation 3: the importance of fostering a *community of promise* characterised by realistic hope and trust that effective solutions can and must be found – and that they as students are central to this action. Teachers, along with support from colleagues, school executives, and experts, are seen to be essential in initiating and sustaining this sense of promise.

Crucially, according to the authors, these principles of hope and trust must not merely be presented to young people but also invested in them. By so doing, older generations entrust young people with the responsibility and capacity to take action for the long-term sustainability of the planet, recognising that they cannot bear this burden alone. Collaboration between generations is essential in this endeavour.

### Example 2: *Climate workshop with a bright horizon*

In *Climate change education with a bright horizon?: Pedagogical reflections on teacher training for climate education that aims to empower students* (2018), Sheri Eklund reports on the pedagogical reflections of grade school and gymnasium teachers who participated in a professional development workshop entitled "Climate workshop with a bright horizon" (Klimatfortbildning med ljus horisont).

The two-day course ran November 13-14, 2018. It aimed to address the teaching relating to climate anxiety "by shifting the focus to a brighter, more empowered horizon where we better understand climate change and what solutions are available" (p.2). The first day was aimed at teachers of students from 13 to 19 years old; the second day was for teachers of students from 10 to 15 years old. Both took place on the campus of Stockholm University at what is known as The House of Science<sup>9</sup>.

While remaining rooted in the science-communication traditions of The House, the workshop introduced a number of new features in how it works based on readings in the emerging research on climate anxiety. These related to increasing participating teachers' sense of empowerment and ability to engage to address climate change. These are described as *pluralistic*, *democratic*, and *authentic* teaching methods.

Pluralistic teaching methods (dialogue-based methods that include multiple diverse perspectives) are seen to increase students' experience of participation, influence and codetermination. In a pluralistic strategy, the primary focus lies in comprehending the various viewpoints held by diverse interest groups and how these perspectives can influence their motivations and actions. Within this framework, there can exist multiple "correct" answers, contingent upon the specific viewpoint one adopts. This method carries the advantage of fostering critical thinking among students and encouraging them to question established "truths." The diversity of perspectives within this approach provides fertile ground for the emergence of fresh ideas and innovative solutions.

However, it's important to acknowledge that pluralistic education demands time and patience. A potential drawback is that not all interest groups possess equally robust arguments, underscoring the importance of the teacher's role in maintaining a balanced environment that avoids sliding into an "anything goes" atmosphere of relativism. Consequently, a solid factual foundation and a well-informed teacher are pivotal for the successful execution of pluralistic debates or discussions.

Pluralism was seen to offer a valuable anchor for Education for Sustainable Development (ESD) with the teacher participants because it actively engages them in considering a multitude of facets and opinions in developing and arguing for their own standpoints.

Democratic method (in which students participate actively and have influence in the learning process), was the second underpinning feature of the workshop. While *Democracy and sustainable development are not automatic allies* in ESD, applying democratic working methods to ESD can result in a diversity of solutions that, through negotiation and compromise, are capable of accommodating a wide range of interests (p6). Both democracy and sustainable development are promoted in the Swedish school curriculum and so bringing them together adds strength to both. Democratic working methods have the advantage of high student participation which can lead to greater motivation. The learning should be built on a shared conversation between the teacher and the students. As students "participate in their own learning, they have influence over the learning process and thereby get used to handling one of

<sup>9</sup> The House of Science is a cooperation between the City of Stockholm, KTH Royal Institute of Technology in Stockholm, and Stockholm University. It operates independently and specialises in running School programmes, weekend courses, teacher-training, and science-communication events. Its school programmes for student groups and courses for children and youths on weekends and school holidays are guided by students from KTH and Stockholm University. These "visiting leaders" act as role models for the visiting students when they describe their own education and tell about life as a university student. <https://www.kth.se/en/larande/vh/vetenskapens-hus-1.804301>

the most important skills to contribute to sustainable development” (SOU, 2004, p.67, author’s translation). This is particularly valuable in Eklund’s eyes as by fostering democratic participation, climate education can also enhance students’ comprehension of the political landscape surrounding climate-related decisions. Democratic climate competence involves acquiring the skills to actively participate in and shape decision-making processes. Citing Håkansson (2010, p.102-103), Eklund argues that rather than inundating students with alarming doomsday scenarios, which can potentially breed hopelessness and despair, using democratic method can instead underscore the vital role of teachers in instilling optimism regarding individuals’ capacity to effect change. The manner in which a teacher addresses the topic of climate change can significantly impact students’ motivation to become engaged. (pp5-6)

The third component centred on an understanding of the authentic (involving real-life, complex and cross-disciplinary situations). Eklund notes that authentic or realistic learning is an important aspect of ESD that can also effectively address students’ sense of empowerment for navigating real world issues. Drawing from what Kramming (2017, p.212) describes as “a dynamic and contextualized content of ESD based on systemic and complicated models of thinking”, Eklund proposes that an authentic approach is realistic, relevant, complex, integrated, and interdisciplinary.

Delving into genuine societal concerns grounded in scientific foundations has, Eklund suggests, the potential to pique students’ interest, primarily because these issues are pertinent to their lives and are often highlighted in the media. Through this approach, students acquire both knowledge and competencies to navigate intricate, contentious problems in the real world, which often lack a definitive “correct” solution. These proficiencies encompass the ability to proactively seek information and assess the reliability of information sources. Additionally, students can cultivate the skill of distinguishing between arguments rooted in factual evidence and those shaped by personal values when articulating various viewpoints.

In summary: by using pluralistic, democratic, and authentic teaching approaches in climate education teacher educators and developers – and teacher students in their turn – can increase students’ action competence and address climate anxiety. These approaches offer different focuses but are more complimentary and overlapping than distinct from each other. When a learning design combines all three of these characteristics, students assume an active role in determining the information they require and embark on their investigative journeys with guidance from their teacher. This approach empowers them to take greater ownership of their learning experiences and has particular relevance and significance for addressing eco and climate anxiety in its many forms.

## 5: Challenges

A number of challenges relating to policy work and policy action on eco-anxiety and promoting well-being were identified through the desk research informing this paper:

- **Understanding and Awareness:** One of the foremost challenges in addressing eco-anxiety is the limited understanding we have of its diverse causes and manifestations. Policymakers may need to prioritise research that promotes the development of a comprehensive understanding of the emotional and mental health aspects related to climate change. This will likely involve recognising the intricate web of emotions tied to environmental concerns, the mental toll they can take on individuals but also the potential positive impact they can be for fostering student agency and action.
- **Demographic Considerations:** Eco-anxiety is not uniform across society but exhibits variations among different demographic groups, including youth, women, and indigenous communities. Policymakers will need to acknowledge these demographic disparities and

formulate tailored strategies to address the unique needs and vulnerabilities of each group. A carefully nuanced approach will be necessary to ensure inclusivity and effective support.

- **Integration of Critical Perspectives:** Climate change and sustainability issues carry significant political dimensions. Policymakers will need to recognise this and incorporate the perspectives and methods of critical theories from disciplines such as sociology and educational philosophy into their prescriptions. By doing so, they can provide mechanisms to facilitate delving deeper into the complex socio-political aspects of eco-anxiety, which it is evident cannot be adequately addressed through a purely psychological lens.
- **Empowering Educators:** Effective teacher education and development is vital in equipping educators with the tools to address eco-anxiety in their work with students. Policymakers should consider encouraging a multifaceted approach to teacher education – one that encompasses elements like multidisciplinary emotional approaches, coping strategies, and exposure to critical theoretical perspectives. This would help prepare educators more comprehensively to foster a supportive environment for students dealing with eco-anxiety.

## 6: References

- Baudon, P., (2021) A scoping review of interventions for the treatment of eco-anxiety. *In Analysis*, Volume 5, Issue 1, Pages 82-85, ISSN 2542-3606, <https://doi.org/10.1016/j.inan.2021.02.005>. (<https://www.sciencedirect.com/science/article/pii/S2542360621000056>)
- Baudon, P., & Jachens, L. (2021). A scoping review of interventions for the treatment of eco-anxiety. *International journal of environmental research and public health*, 18(18), 9636.
- Buchanan, J., Pressick-Kilborn, K., & Fergusson, J. (2021). Naturally enough?: Children, climate anxiety and the importance of hope. *The Social Educator*, 39(3), 17-31.
- Clayton, S. (2020). Climate anxiety: Psychological responses to climate change. *Journal of anxiety disorders*, 74, 102263.
- Coffey, Y., Bhullar, N., Durkin, J., Islam, M. S., & Usher, K. (2021). Understanding eco-anxiety: A systematic scoping review of current literature and identified knowledge gaps. *The Journal of Climate Change and Health*, 3, 100047.
- Eklund, S. (2018). *Climate change education with a bright horizon?: Pedagogical reflections on teacher training for climate education that aims to empower students*. Unpublished Study at Advanced Level. Department of Math and Science Education, KPU: Stockholm University.
- Farrell, A. J., Skyhar, C., & Lam, M. (2022). *Teaching in the Anthropocene: Education in the face of environmental crisis*. Canadian Scholars.
- Gunasiri, H., Wang, Y., Watkins, E. M., Capetola, T., Henderson-Wilson, C., & Patrick, R. (2022). Hope, coping and eco-anxiety: young people's mental health in a climate-impacted Australia. *International Journal of Environmental Research and Public Health*, 19(9), 5528.
- Lawrance, E. L., Jennings, N., Kioupi, V., Thompson, R., Diffey, J., & Vercammen, A. (2022). Psychological responses, mental health, and sense of agency for the dual challenges of climate change and the COVID-19 pandemic in young people in the UK: an online survey study. *The Lancet Planetary Health*, 6(9), e726-e738.
- Lawrence, B. C., Skuce, T., & Breen, R. E. H. (2022). Hope in Action as a Pedagogical Response to Climate Crisis and Youth Anxiety. In *Teaching in the Anthropocene: Education in the Face of Environmental Crisis*, 108-121.
- Sangervo, J., Jylhä, K. M., & Pihkala, P. (2022). Climate anxiety: Conceptual considerations, and connections with climate hope and action. *Global Environmental Change*, 76, 102569.
- Snyder, C. R. (2000). *Handbook of hope: Theory, measures, and applications*. Academic press.
- Snyder, C. (2002). Hope Theory: Rainbows in the Mind. *Psychological Inquiry*, 13(4), 249-275.
- Vamvalis, M. (2022). Nurturing embodied agency in response to climate anxiety: Exploring pedagogical possibilities. In *Teaching in the Anthropocene: Education in the face of environmental crisis*, 119-130.
- Wang, H., Safer, D. L., Cosentino, M., Cooper, R., Van Susteren, L., Coren, E., ... & Sutton, S. (2023). Coping with eco-anxiety: An interdisciplinary perspective for collective learning and strategic communication. *The Journal of Climate Change and Health*, 9, 100211.