

# Education for Sustainable Development and Global Citizenship through Philosophical Enquiry: Principles and Practices

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**ABSTRACT:** *In this paper I argue that at this time of ecological crisis, ethics should infuse all teaching and learning, and Education for Sustainable Development and Global Citizenship (ESDGC) should be an overarching planning tool. I make the case for Philosophy for Children (P4C) to be integrated into the whole curriculum rather than be a stand-alone lesson. I show how a thematic approach that connects ESDGC to real life issues and incorporates all school subjects can connect the different areas of study to each other and support critical thinking by introducing controversial issues. The study is located in Wales in the UK to show how national curriculum requirements can be satisfied through careful planning. In this paper I discuss a teaching pack for the 8-13 age range, 'Arctic Stories' (Lyle, 2010) to illustrate how the four C's of thinking: critical, creative, collaborative and caring can be integrated into the curriculum.*

## Introduction

Our children are growing up at a time of major species extinction, major pollution, catastrophic resource depletion and an inexorable rise in levels of CO<sub>2</sub>. If these young people are going to undo the damage done by industrialization, they need rather more than the current obsession with rising scores on very narrow tests, as if there were no planetary emergency (Orr, 2004). We need a paradigm shift in our thinking. Such a shift can start with education policy.

In Wales (UK), where the work reported on here took place, the curriculum includes Education for Sustainable Development and Global Citizenship:

Education for Sustainable Development and Global Citizenship (ESDGC) seeks to give learners, at all stages of education, an understanding of the impact of their choices on other people, the economy and the environment (DCELLS, 2008a).

Known as ESDGC, it is not an additional subject, but should permeate the whole curriculum:

It is more than a body of knowledge as it is about values and attitudes, understanding and skills. It is an ethos that can be embedded throughout schools, an attitude to be adopted, a value system and a way of life (*ibid*).

In addition, Wales has a Skills Framework as a cross-curricular requirement (DCLL, 2008b). The framework emphasizes critical and creative thinking and puts metacognition at its heart. A range of thinking principles have been identified including:

...activating prior skills, knowledge and understanding; thinking about cause and effect and making inferences; thinking logically and seeking patterns; considering evidence, information and ideas; forming opinions and making decisions; linking and lateral thinking (DCLLS, 2008b).

Working in this context, this paper examines principles and practices developed over the past 25 years working mainly with the 8-13 age range to support ESDGC and in the context of the Skills Framework to integrate Philosophy for Children into the curriculum. However, this way of working poses a challenge for schools that have a duty to implement the National Curriculum with its focus on mathematics, English, science and digital literacy. To be effective, ESDGC needs to connect specialist knowledge across the subject areas of the curriculum to real-world problems. Philosophy for Children (P4C) has been introduced to many Welsh schools as part of the Skills Framework and is commonly seen as a 'stand-alone', separate to the given curriculum; it is rarely integrated into curriculum planning from the start. My aim was to devise curriculum that embedded ESDGC and P4C into the statutory curriculum.

Since the introduction of the Skills Framework, there has been a call for schools to focus on critical thinking, which is widely regarded as essential if children and young people (CYP) are to navigate a world in crisis. Noddings (2006) goes further and argues that critical thinking is "nonexistent, or, at best, weak" without controversial issues and laments the fact that topics that call forth critical and reflective thinking are largely absent from the given curriculum.

In sum, the curriculum development I carried out was designed to meet the Welsh Government demands for ESDGC and Thinking Skills and to incorporate P4C as an integral part of the curriculum planning. In this paper I draw on one of the teaching packs I prepared for the 8-13 age range. 'Arctic Stories' (Lyle, 2010) is carefully mapped to national curriculum requirements with a cross-curricular focus that incorporates aspects of the science curriculum, in particular the development of ecological literacy; the geography of the Arctic and the history of Victorian Britain. Literacy, numeracy and IT skills are central. To promote creative thinking drama and role-play are key pedagogic tools.

An aspect of ESDGC that is particularly relevant is its requirement for schools to engage in moral education and to prepare future citizens to be morally acceptable people. Again, in our current system, moral education tends to be seen as something separate from the mainstream curriculum. I argue that ethics should infuse all teaching, especially when combining ESDGC and P4C. If this is to happen we need teachers who can lead enquiry on moral reasoning, the sources of ethical principles and the role of relations and community. Following Noddings (2013), I argue that connecting ESDGC to real life issues and locating this in all school subjects can connect the different areas of study to each other and encourage critical thinking by introducing controversial issues.

### **Curriculum Development: Arctic Stories**

For the purpose of this paper, I focus on one aspect of 'Arctic Stories', a case-study of whaling in the 19thC. Whaling is a good choice because it illustrates how so much of the activity of

Europeans at this time broke the intimate relationship between cultures and ecosystems that had coevolved over centuries. The highly localized adaptations needed for ecologically healthy ecosystems in the Arctic came into conflict with the requirements of rapidly industrializing nations and an expanding international economy. The case-study introduces CYP to the sustainable, social, philosophical, political and ecological context of whaling communities. The consequences of whaling for complex biological and cultural systems are also considered. I go on now to discuss the planning tool I developed and applied to the development of the topic. The tool is generic and can be applied to planning any topic in the curriculum.

### *ESDGC: A planning tool*

I have incorporated two key concepts into curriculum planning for ESDGC:

- 1) *Ecological understanding* (how the natural and made world works and interacts);
- 2) *Aesthetic appreciation* (developing awe and wonder for the natural world and human creativity to promote empathy).

Three key questions are used to shape the content of a topic infused with ESDGC:

- 1) *What is happening?*
- 2) *Why is it happening?*
- 3) *What can we do about it?*

Let's start with the last question first. This question has an implicit moral component. It asks us to help children and young people think not only about what we can do, but what we *should* do in order to live the best lives possible. The ESDGC curriculum is concerned for the well-being of sentient beings that depend on the integrity of the physical environment. In our current context the physical universe is changing at a rate not predicted 50 years ago and this raises specific moral questions that our children and young people need time to talk about. The questions that are raised in relation to ESDGC are therefore always going to be moral questions.

As discussed earlier, critical thinking is now widely regarded as essential if we are to prepare children for their lives. Inspired by Noddings (2006), I identified some key principles to guide the successful development of critical thinking in the context of ESDGC and P4C. I begin by listing these principles and go on to show how I use them when planning classroom activities.

1. Critical thinking is best achieved when learners have knowledge and understanding of a topic.
2. Critical thinking is best developed in relation with others – it is a collaborative process.
3. Critical thinking is motivated when there is a strong affective response to the content of the curriculum. Emotions should be carefully examined using reason.
4. Critical thinking skills are promoted through collaborative exploration of controversial and contestable issues.
5. Reasoning is best developed through consideration of matters of moral and social importance so learners can apply critical thinking to real-life issues.
6. Critical thinking should help learners develop self-understanding. This means students must be asked to consider what they believe and explore why they believe it.

7. Critical thinking is developed in relation with others through hearing, thinking, and talking about issues that are critical to our lives or the lives of other human beings.
8. The best critical thinking comes from the things children are interested in, or even better, passionate about.

### Putting Principles into Practice

I applied the above principles when writing the case study of 19<sup>th</sup> century British Whaling taken from 'Arctic Stories' (Lyle, 2010).

An important consideration when planning teaching to promote critical thinking is principle 1:

1. Critical thinking is best achieved when learners have knowledge and understanding of a topic.

The case study of Arctic whaling is the second case study the students encounter when following *Arctic Stories*. The first case study depicts the lives of the Inuit people of Canada whose way of life was shaped by the migratory patterns of reindeer. As they study these people, the students acquire a lot of information about the climatic conditions of the Arctic in the 19<sup>th</sup>C and the flora and fauna that had evolved in this context shaping the way of life of the people. The whaling case study builds on this ecological literacy and begins by introducing an Inuit family whose lifestyle also depended on hunting animals. The substantial concepts of interdependence and self-sufficiency are explored, as children find out about the way of life and the relationship of the people to whales and other Arctic creatures. In parallel to this they are introduced to a 19<sup>th</sup> century Scottish sailor who worked on a whaling ship. The two narratives are designed to help the children see the world both through the eyes of the Inuit and the whaler and provide knowledge and understanding of the topic.

The design of the teaching materials is influenced by sociocultural theory (Mercer & Littleton, 2007) and the claim that narrative understanding is the primary meaning-making tool (Lyle, 2000). Following this, extensive use is made of narratives to stimulate the children's imaginations and engage their interest. The importance of experiential learning is emphasized as role-play and drama is a key pedagogic tool (Lyle, 2002) that can promote creative thinking. This links to Principle 2:

2. Critical thinking is best developed in relation with others – it is a collaborative process.

Initial activities are designed to help the children develop a principled understanding of the lives of the 19<sup>th</sup> century Inuit people who depended on the whale for their very existence. Working in small groups, children are asked to examine a set of illustrations depicting scenes from the lives of the people; they are invited to work out what they can about their way of life from the illustrations. In addition, they generate questions they would like to ask to develop their knowledge and understanding. In this way, their prior knowledge is activated and gaps in their understanding identified as areas for investigation. Following this, the teacher shares a story with the children. This provides information that can be linked to the illustrations and may also answer some of the questions the children have raised. They are encouraged to research their unanswered questions.

In order to make the knowledge their own, the children work with the illustrations and the story to create a storybook about the Inuit whaling people for younger children. This process is designed to support the development of higher order literacy skills as an integral part of the learning process.

The next activity is designed to give the children an understanding of why men in Victorian times joined the whaling ships, and to find out what life was like aboard. Through listening to a CD of the oral diary of a Victorian seaman, the children learn of the circumstances that drove him to take this job – to save his wife and children from the workhouse. The diary tells the dramatic story of the voyage to the Arctic and documents a whale hunt to give the CYP a graphic understanding of what life was like for the sailors on board the whaling ships. This focus on developing knowledge of the Inuit and the whaling ships through dramatic narrative is designed to fulfill principle 3:

3. Critical thinking is motivated when there is a strong affective response to the content of the curriculum. Emotions should be carefully examined by reason.

Narratives about an Arctic family and a Scottish whaler was chosen to generate feelings of compassion and empathy for the protagonists on both sides as the students engage with their stories. Work in psychology suggests that empathy is felt more intuitively if we focus on a single, identifiable human life (Small & Lowenstein, 2003). This understanding is drawn on by charities working in areas of need today. The implication is that advertising campaigns will be more effective in raising money if they focus on a single child's suffering rather than the reality of a whole group. We apparently give more generously and feel the greatest empathy for a single child. Known as the 'identifiable victim effect' it describes how we put more weight on a single story than on large-sample statistics (*ibid*).

The decision to prepare stories about individuals also links to philosopher Kieran Egan's (1988) conceptualization of teaching as storytelling. The age group targeted for this work is 8-13 years; Egan (1990) argues that story-telling and narrative understanding is still the overarching pedagogic tool for engaging this age group. By the age of 8, most children become hungry for knowledge, they want to understand how humans across the ages and in different places have made sense of the world. They are ready for thinking rationally and imaginatively and both need to be drawn on. They are fascinated by what it means to be human and want to explore the best a human can be as well as the worst. Egan (1990) calls this romantic understanding and he tells us this age are interested in heroes and heroines, villains and tyrants and wish to explore human characteristics such as love and hate, bravery and cowardice, cruelty and compassion, loyalty and betrayal – they want to measure themselves up against the heroes and villains, and consider what their own potential is for goodness or evil. Examination of such concepts are also grist to the P4C mill. In the Romantic Stage we help children explore the real world and consider the extremes of experience and limits of reality. This understanding of the age group informed the planning of *Arctic Stories*.

Having set the scene by establishing the perspectives of the two main protagonists in the coming conflict, the children are asked to imagine the whaling ship has been stranded in the Arctic over the winter (this often happened) and that the sailor and Inuit meet. Together the CYP develop role-plays of the conversations they think the two men would have had. They are invited to consider what they

would do if they had been a Victorian man facing the prospect of separation from his wife and family, and was forced to choose between whaling and the workhouse. Children role-playing the Inuit try to use reason to make him change his mind and see that commercial whaling is destroying their way of life and threatening the whales. Role-play allows the learners to listen and respond to the different voices that express contrasting attitudes and values towards whaling. Knowledge and understanding of the Arctic way of life and the lives of the poor in Victorian Britain is thus developed through story and imaginative pedagogy. Thus whaling is established as a controversial and a moral issue (Principle 4).

4. Critical thinking skills are promoted through collaborative exploration of controversial and contestable issues.

The story of British engagement with the original peoples of the Arctic is one that exemplifies the less attractive traits of human nature – territorial violence, avarice, deceit, cheating, cruelty to animals and fellow humans. The long-term outcomes of European expansion into the Arctic brought misery for the indigenous people and other sentient beings. Children see this as bad and learning about the actions of our forebears often provoke negative emotions including guilt and indignation. The topic raises questions about what our forebears did and what we should do now. This is complicated because they also feel compassion for the Scottish whaler who was facing poverty and the workhouse at home and only wanted to help his family.

Reflection on their role-play activities allows them to consider the following questions:

- What arguments did the Victorian whalers advance for whaling?
- What arguments did the Inuit people put forward against whaling?
- Whose arguments were the most convincing?

The creation of a strong argument is a fundamental purpose of critical thinking. What seemed to motivate and engage the children to do the hard work involved in critical thinking were the emotions engendered by the stories they had heard. Like all human beings, they respond not to strong arguments with evidence to back them up, but the discursive process of examining the stories. The CYP recognize the power of rage and indignation expressed in the protagonists' stories and also understand the need for stories of hope.

Following the first role-play between the Inuit and the Sailor, the students are invited to generate questions for enquiry. The questions often reflect their interest in moral aspects of the situation, for example, *'Was it wrong for the whaler to care more about his wife and children than the wives and children of the Inuit people?'* They quickly recognize that such questions are difficult or impossible to answer. They see that both the whaler and the Inuit are more concerned with their own immediate families than that of the other and they understand how human a response that is.

Through enquiry, the CYP tried to make sense of who should take moral blame in these circumstances – following Egan one group of CYP generated the following question for enquiry: *Who is the hero and who is the villain?* The sailor had joined the whaling ship because the industrial

revolution in Scotland had left him without work, which was no fault of his own. He had a wife and five children and they all faced the workhouse unless he could earn some money. CYP were of the opinion that he had no intention to cause harm to the Inuit and that fact provides mitigating circumstances. They recognized that circumstances matter when passing judgment. However, once the sailor had met the Inuit he could no longer claim ignorance about the impact of his behavior. The teacher in the enquiry asked the children if he should be held accountable if he decided to return for another whale hunting expedition. In responding, the children demonstrated understanding that what he does subsequent to conscious reflection will reflect on what sort of person he is. Nevertheless, he still has his own family to look after. This raises the question of which he should prioritize – his own family or that of the Inuit. The CYP recognized that the sailor isn't the instigator of the whaling voyage and raised questions about the economic system that sent him to the Arctic. What about the ship owners? Does it matter that they made inordinate amounts of money? Should either or both of them be punished for what they did? The case study and role-play activities thus generated a lot of opportunity for ethical speculation.

Having established some of the sources of conflict in the 19<sup>th</sup> century, a new voice is introduced in the form of a Time Traveler. The 'Time Traveler's Story' brings a 21<sup>st</sup> century voice to the discussion. This voice provides historical information about the trade in whales and the impact this had on the people and animals from the 19<sup>th</sup> century to the present day, and gives further information about the relationship between the whalers and the Inuit. The children undertake further role-play to simulate the conversations they believed would have taken place between the Victorian whalers, the Inuit peoples and the Time Traveler.

In this role-play the CYP try to decide what pathway would have maximized the well-being of all – including the future generations. The concepts of harm and fairness are discussed as they attempt to examine the moral codes of both sides and the impact of their behaviour. Group loyalty is usually seen as important, but in comparing behavior and outcomes they notice that the Inuit who hunt whales engage in self-serving actions that do not affect others, whilst the whaler engages in self-serving actions that negatively affect others. The Time Traveler calls for actions that would be beneficial to future generations with no direct personal benefits and no expected reciprocation.

The arguments of the Time Traveler correspond to a consequentialist view of moral argument. She asks the Inuit and the whaler why they did not foresee the cause and effect impact of whaling on the future population of whales and on the people. This second role-play therefore involves the polyphonic voices (Bakhtin, 1984) of the characters holding conflicting views and the CYP try to make sense of who should take moral blame for the 21<sup>st</sup> century outcomes. They know that the whaler couldn't have known what the consequences of his actions would be. Such discussion can cause the students to question the validity of consequentialism as a moral theory and consider alternative approaches.

This role play and subsequent enquiry illustrates Principle 5:

5. Reasoning is best developed through consideration of matters of moral and social importance so learners can apply critical thinking to real-life issues.

The real-life stories provide the affective connection for the children, which in turn promote the emotional engagement necessary if strong arguments are to emerge. This is essential, as the skills of reasoning require the affective as well as the cognitive (Egan, 1990).

Reflection on the arguments developed by the children 'in role' are then extended as children are asked to consider their own position and that of those who might disagree with them. Questions suggested for them to consider include:

- Are the arguments of the Time Traveler strong enough to change current attitudes and behavior towards whales?
- Should we boycott products that contain ingredients from whales?
- Should we support a ban on whaling?
- What arguments could be put forward in favour of whaling?

As they explore such questions, children's self-understanding through critical thinking and self-reflection are enhanced. These questions help children examine their own beliefs and that of others, both now and in the past, as a precursor for forming their own principled opinions. In this way, our learners can increase self-understanding, an important aspect of education and essential to moral development (Sharp, 2007). This meets principle 6:

6. Critical thinking should help our students develop self-understanding. This means our pupils must be asked to consider what they believe and explore why they believe it.

To culminate this case study of whaling in the Arctic, the teacher facilitates a community of philosophical enquiry with the children. The enquiry is informed by the earlier role-plays where the children were guided by their imagined conversations between the Inuit, Whaler and Time Traveler. These conversations helped them appreciate that the protagonists could not have known what the consequences of their actions would be. In the enquiry they show that the consideration of possible consequences of our actions is worth spending time on as they make links between the dilemmas of the past and those we face today. Their understanding that both the whaler and the Inuit are naturally more concerned with their own immediate families than that of the other is as true for us today as we wrestle with the huge inequalities that exist in the world, and in this respect the world we live in is very much like the world of the whaler and the Inuit.

We all share a natural bias towards our own children and families which can lead to injustice. The time-traveler helps the CYP understand why government may be needed to make sure the system is fair. These ideas are extended in the final case study in *Arctic Stories* when the CYP consider the up-to-date story of the polar bear and the impact of global warming. Following this, the last activity in the pack asks the CYP to reflect on what principles and practices might maximize the well-being of polar bears and by extrapolation all the world's species. In 'Let the Planet Speak' the children draw up a charter of planetary rights for the world.

This activity entails reflection on what moral theories would best guide our actions. They consider how designing a society for the future might be assisted or not by considering different

moral theories. This is essential if the children are to fulfill principle 7:

7. Critical thinking is developed in relation with others through hearing, thinking, and talking about issues that are critical to our lives or the lives of other human beings.

When planning all the activities for this case study, I had in mind the final enquiry that will bring the work to a conclusion. Careful planning as discussed above, can ensure that all the principles I have identified as important to critical thinking have been properly taken account of. In my experience the final enquiry produces high quality critical thinking from the children. I suggest that this is because the subject matter chosen for the topic is controversial and the manner of its presentation through the stories of the key protagonists has stimulated the children's interest and emotional engagement. We can therefore meet our final principle:

8. The best critical thinking comes from the things children are interested in, or even better, passionate about.

In the process of their enquiries the CYP have the chance to gain insight into what it might mean to live wisely and ethically. They usually notice that the decision made by the whaler was made on the basis of emotion and see how powerful emotion is in our day-to-day decision-making. This provides support for Haidt's (2001) social intuitionist model as an alternative to rationalist models for making moral judgments. Haidt argues that reasoning rarely produces moral judgments; that human beings tend to make moral decisions on the basis of emotion, justifying their decisions with *post hoc* reasoning. By experiencing enquiry where they can learn to reason using critical thinking and pay greater attention to evidence, the CYP have the possibility of becoming mindful of the ever-present possibility of error in our ethical decision-making, and learn to be more self-reflective. This supports Sharp's argument that classrooms that become communities of enquiry can bring about better thinking on the part of students and a growth in emotional maturity (Sharp, 2007).

### Summary

My research suggests that planning, framing and teaching curriculum for ESDGC around controversial issues is an exciting way to promote critical thinking skills. Too often critical thinking consists of decontextualized exercises that claim to develop skills, and are presented as yet another lesson to be added to an overcrowded curriculum. For me, critical thinking cannot be taught directly as a set of exercises, for we can't think critically about something we know little about. We have to carefully plan for critical thinking across all curriculum areas, not consider it as a 'bolt on' extra, not a condiment to the main curriculum meal, but the driver of planning.

My research supports Noddings' (2006) argument that critical thinking is the skillful use of reason that can be developed through a consideration of controversial issues. In fact, it can provide much more than this. When curriculum encourages passionate, personal engagement (Sharp, 2007), it can lead children to bring reason to bear on matters of moral importance that affect their own beliefs and decision making, and in the process they learn how to develop and assess arguments – the heart of critical thinking.

This approach, which taps into Egan's (1990) Romantic Understanding framework also helps children to learn and remember the content of the curriculum. A curriculum designed using the principles of critical thinking outlined above, can generate genuine interest on the part of students and when they are interested they will learn and remember. It is well documented that much of what our children currently learn in school is promptly forgotten. I have gone back to schools 1-4 years after they have followed *Arctic Stories* and found strong memories remaining, not just for facts and information, but deep understanding of the controversies and issues considered. The learners have made connections to things that interest them –in this case the fundamental human condition of conflict over access to and use of the planet's resources, and consideration of how to resolve such conflict and the probable impact on the people and animals of the planet if such differences are not resolved. I have also learned that experiential learning through dramatic role-play and enquiry can aid memory. The research supports the argument that dialogue should be at the centre of effective classroom practice (Mercer & Hodgkinson (2008). Furthermore, structuring understanding by planning meaningful literacy tasks linked to real-life issues is an effective way to improve literacy and develop literate thinking (Lyle & Jenkins, 2010). And most of all, remembering is improved when there is a strong affective response to the material being studied.

### Conclusion

We should not ask CYP to think critically on issues they know little or nothing about. They will not be able to reason well without adequate information. We should therefore build critical thinking into the content of our curriculum. To do this, we need to find or create powerful narratives to harness the affective to the cognitive, and create the conflict between opposing positions on issues that are of interest to us all. We need to ensure the tasks we give our students are based around collaborative learning and enquiry to give them the chance to explore their own beliefs, and subject those beliefs to scrutiny and interrogation.

Following Lipman (2003), any teacher using these activities should be aware that critical thinking is just one type of thinking being developed. The key pedagogical tool used is collaborative learning designed to promote collaborative thinking (Lyle, 2008). All the activities in 'Arctic Stories' are collaborative; they depend on students working together to complete them. The activities they engage in and the artefacts they produce require creative thinking. From the production of a story for younger children and imaginative engagement in listening to story and carrying out role-play, through to the dialogue that takes place during communities of enquiry, the children are engaged in creative thinking. Finally, and underpinning all the other types of thinking, is caring thinking as discussed by Ann-Margaret Sharp (2014):

The good life comes from what we care about, what we value, what we think truly important, as distinguished from what we think merely trivial.

Through this case study, students are engaged in the process of thinking through what the protagonists in the story care about, examining the justifications they employ, and considering what was important to them as individuals and as a community. Through the role-play, they rehearsed their

ideas and in the process gained confidence in presenting the ideas of others and of themselves. Sharp (2014) identifies different elements of caring thinking that includes thinking ethically, appreciating values, being sensitive to the feelings of others, being moved to act to attain one's chosen values and imagining how things might be different from the norm. All of these elements are present in the children's consideration of the lives of people and whales. Such considerations can promote their moral development. However, caring thinking is more than this; children are also encouraged to care about the quality of their thinking, to explore their own thoughts and listen to the thoughts of others, to be prepared to change their minds when hearing what others think, and to justify their own ideas with reasons. When we are the recipients of caring thinking, when others listen carefully to our ideas and respond to them, whether they agree or disagree, we grow as individuals (Noddings, 2003). From this perspective, moral life is thoroughly relational. Our selves are constructed through encounters with others, it is a relational process; caring thinking is therefore a moral approach to the classroom and, by extension, to life.

I began this article by outlining a set of principles to guide curriculum planning to incorporate and develop critical thinking. I end by arguing that critical thinking is not enough; we also need to promote collaborative, creative and caring thinking –the 4Cs necessary to the holistic development of the learners in our care. All four types of thinking have been incorporated in the planning process and are essential to the development of critical thinking.

Learning and teaching in this way is a moral challenge and demands a long-term perspective. The best of us want to live ethical lives. We want our children to behave morally, to take their obligations seriously to strive for a just world. Education should have an empathic, ethical heart if it is to tackle the environmental crisis. Orr (2004) asks us what could be more important today than climate stability, the maintenance of the natural world and biological diversity. Actions to achieve this involve asking moral questions about justice and fairness. It requires an understanding of cultural and biological diversity and above all the cultivation of a moral imagination. It requires curriculum infused with ESDGC in a way that promotes critical thinking through the community of enquiry and moral education.

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