

Level 2, 2008
Education for Sustainability
A commentary on preparation for the external achievement standards

Describe world views, their expression through practices and the consequences for a sustainable future (90812)

Describe aspects of sustainability in relation to a sustainable future (90814)

This commentary should be read in association with the assessment report and comments on exemplar papers.

If a candidate for either of the two external standards is to gain their best possible grades, a thorough reading of the requirements for each standard is important. There is a need to ensure that candidates are aware of, and understand, the key concepts, terms and aspects of sustainability. Examples of these include interdependence, equity, biodiversity, personal and social responsibility, natural capital, limits to growth, as well as ecological, social, economic and cultural aspects. It is also important that candidates avoid overly simplistic answers; 'sustainability' is a contested concept, as well as a process, that is interpreted by various sectors of society in different ways depending on their politics and passions. Candidates should be able to show that they are aware of this contestability and the varying interpretations by couching their answers in less absolute terms. Taking this awareness deeper requires the learner to explore the theoretical perspectives that have informed our relationships with the earth, as well as with other human and non-human beings over time. Each various theoretical perspective or world view provides a framework of ideas and beliefs through which an individual interprets the world and interacts with it e.g. Christianity, Jainism, Marxism, Deep-Ecology, Western Scientific.

As stated, one of the key concepts is interdependence. This lies at the heart of a thorough understanding of strong sustainability and it is important that candidates show they have explored the concept at some stage in their studies. Interdependence is about relationships and systems where entities are in mutual dependence. Environmental philosopher Arne Naess¹ argued that a desire to protect the natural world arises from a deep sense of affinity with the land and non-human beings that surround us. This profound connection to the world needs to be explored through personal stories and experiences; in effect a course in education for sustainability becomes a personal quest for knowledge and meaning about our relationships to the environment and each other. The concept can also be explored through group games, discussion and inquiry. A discussion of interdependence may focus on an issue of the moment such as the collapse of a country e.g. where a society is unstable and social equity is in decline, such as Zimbabwe, the environment and economy eventually suffers. In essence, a study of sustainability is about ethics; the mitigation of the impact we humans have on the earth and the management of resources and waste. This in turn leads into politics and economics – who gets what, when and how? Issues of social justice are inherently connected to issues of ecology and in this way education for sustainability acts as a bridge between two traditional learning areas, social science and science.

The range of contexts in which candidates can learn about aspects of sustainability as well as world views are many and varied. They cover private and public, political and personal activities and can be at a local, national or global scale. Examples of contexts for candidates to investigate could

¹ Naess, Arne. (1973) The shallow and the deep, long-range ecology movements: A summary, [Inquiry: An Interdisciplinary Journal of Philosophy](#) 16:95-100 Routledge

include land transport issues i.e. Intercity coaches using the CarboNZero programme to mitigate their carbon footprint; the tourism industry addressing climate change and peak oil through *The Tourism Strategy 2012* report; business integrating sustainability practices e.g. the viticulture industry aiming to become carbon neutral (e.g. Grove Mill winery), or other local businesses like Phoenix Juices, EcoStore, Becon Drywaste, Untouched World, Design Mobil; organisations and groups lobbying for the environment or sustainability i.e. Forest and Bird, WWF, Transition Towns initiatives, Living Streets, Ark in the Park, Motuora Restoration Society; the policies and supporting practices of government bodies, both at the local and national level e.g. The RMA, the Local Government Act or activities involving public participation.

At a global level there are many examples of countries developing their sustainability policies and practices, and much of this information can be accessed on the web. A number of candidates in the 2008 examinations wrote in detail about the activities of international activist organisations like Greenpeace or the work of the people on Samsø island are doing with the support of the Danish government, or the strategies the Chinese government is implementing to overcome some of their environmental stresses such as the conditions imposed during the Beijing Olympics and the building of the eco-city of Dongtan.

Useful reading for candidates and teachers in terms of deepening their understanding of strong sustainability would be works by Herman E Daly or numerous links from the PCE site <http://www.pce.govt.nz/> (search: Sustainability). Other sources of information include the *Sense of Wonder* by Rachel Carson, *The Principles of Sustainability* by Simon Dresner, *The Ecology of Commerce – A Declaration of Sustainability* by Paul Hawken, *Capitalism as if the World Matters* by Jonathon Porritt and numerous other books published by Earthscan (<http://www.earthscan.co.uk>).

It is also important that candidates show some knowledge of the development in our understanding of sustainability over time from the 1960s to the Earth Charter (<http://www.earthcharter.org/>) and beyond. Of course, reading beyond the academic is also important for developing an understanding of ourselves and our relationships to the natural world. Literature, both poetry and prose, has within it a wealth of books that relate to the environment or to aspects of sustainability, and these can be explored with candidates using a variety of educational strategies. Examples of relevant books include *Prodigal Summer* by Barbara Kingsolver, *Green Boy* by Susan Cooper, *All over Creation* by Ruth Ozeki, *Oryx and Crake* by Margaret Atwood, or children's book like *The Lorax* by Dr Suess, *Miss Rumphius* by Barbara Cooney or *The Short and Incredibly Happy Life of Riley* by Colin Thompson and Amy Lissiat.

Learning about sustainability is most transformative when it involves the use of personal stories and collaborative inquiry practices. The importance of integrating the cognitive and affective when developing the content of sustainability education courses is clear. There is little that is absolute about sustainability; it is in itself dynamic and is therefore a useful tool for developing candidates' creative, critical and analytical thinking strategies. It is also able to be practically applied so candidates can go beyond the classroom to meet with people acting in a sustainable way in their daily lives, or involve themselves in relevant projects. The previous Parliamentary Commissioner for the Environment, Morgan Williams describe sustainable development as: *'the journey towards the elusive goal of 'sustainability', ... indicating an unending quest to improve the quality of our lives and surroundings, and to prosper without destroying resources and life supporting systems on which we, and future generations, depend.'*²

Education for Sustainability is an integrated field; it not only integrates across a range of subject areas, it also connects the learning that happens in school with issues and concerns in the community and wider world. It is important that candidates are exposed to all sides of controversial issues, and are supported to understand and challenge the underlying assumptions of our society. Teachers therefore need to have examined and critiqued how schools reflect the values, attitudes,

² PCE (2002) Creating our future: sustainable development for New Zealand p29

beliefs and social structures that have supported the economic, political and social systems that have fostered the current ecological crisis we find ourselves in. David Orr in his book *Earth in Mind* stated this relationship clearly when he wrote: “*The disordering of ecological systems and of the great bio-chemical cycles of the earth reflects a prior disorder in the thought, perception, imagination, intellectual priorities and loyalties inherent in the industrial mind. Ultimately, the ecological crisis concerns how we think and the institutions that purport to shape and refine the capacity to think.*” Books that support an understanding of the transformative nature of education for sustainability include Sustainable Education: Re-visioning Learning and Change (2001) by Stephen Sterling, Place-Based Education (2005) by David Sobel or Ecological Education in Action (1999) by G.A. Smith & D.R. Williams.

It is important that learning within an Education for Sustainability course (or learning about sustainability within other subject areas) empowers candidates to question, critically examine and discuss issues and institutions, and determine the type of action they may take to create a more sustainable future. Teachers need to teach in a manner that aims to transform the way candidates interact with the world and with each other so that they not fall into despair but instead gain an understanding of their own capacity to effect change. In this respect Education for Sustainability reflects the vision for young people described in the New Zealand Curriculum (NZC: 2007) document: confident, connected, actively involved lifelong learners. The effective pedagogical approaches outlined in the NZC (p34-36) are supported through Education for Sustainability learning, and will allow candidates to gain the depth of understanding and knowledge required for the two externally examined achievement standards.