



Submission
on
New Zealand Curriculum
from
Sustainable Otautahi Christchurch

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Sustainable Otautahi Christchurch Feedback on the draft New Zealand curriculum

Sustainable Otautahi Christchurch applauds the efforts by the Ministry of Education over the years that have led to environmental education being placed more prominently, in an overarching manner, within the New Zealand curriculum framework. We also pleased to see that environmental aspects have been explicitly stated in six of the eight learning areas within the draft curriculum framework: Arts, Health and Physical Education, Mathematics and Statistics, Science, Social Sciences and Technology. We regard this to be an important milestone in the development of the New Zealand curriculum.

However, recent developments concerning sustainability issues, both globally and locally, have led to the urgent need for education for sustainability. This need was earlier acknowledged internationally in Agenda 21. Chapter 36 of Agenda 21, on Education, Awareness and Training, stated: “Education is critical for achieving environmental and ethical awareness, values and attitudes, skills and behaviour consistent with sustainable development and for effective public participation in decision-making.” More recently, this need was reiterated in the United Nations General Assembly’s declaration of the years 2005 – 2014 as the UN Decade of Education for Sustainable Development.

Education is indeed the "key to sustaining our nation's development and to its successful transformation into a knowledge-based society" as stated in the vision statement of the draft New Zealand curriculum (p.8). Education is also the key to “environmental sustainability and to sustain the social, cultural and economic well-being of people living now and in the future” (PCE 2004, p. 37). We thus appreciate that sustainability has been mentioned in three separate occasions within the draft New Zealand curriculum. We provide the following recommendations for each:

1. KEY COMPETENCIES - Participating and Contributing (p. 11)

Students develop “confidence to participate and contribute actively in new roles” in local, national and global communities.” “They understand the importance of balancing rights, roles, and responsibilities and of contributing to the quality and sustainability of social, physical, and economic environments”.

Recommendation: Sustainability of natural environments needs to be included in addition to “... sustainability of social, physical, and economic environments,” to provide natural environments a separate status and to distinguish it from physical environment which includes buildings and infrastructure.

2. SCIENCE (p. 21)

“By using their knowledge of chemistry, people can predict and control changes in matter, leading to technological advances and the possibility of a *sustainable future*.”

Recommendation: This sentence requires rephrasing as it may lead to a misunderstanding that only “technological advances” offers “the possibility of a sustainable future.” It is important to acknowledge the limitations and drawbacks of technological advances together with its advantages. The role of science in understanding the complex nature of natural ecosystems, its carrying capacity and its limitations needs to be emphasised as this is crucial for a sustainable future.

3. SOCIAL SCIENCES (p. 22)

“In the Economic World strand, students learn about the ways in which people participate in economic activities and about the consumption, production, and distribution of goods and services. They use this knowledge to understand their place in the economic world.”

Recommendation: The “consumption, production, and distribution of goods and services” aspect of the economic activities could be related to the principle of sustainable consumption, i.e. “the use of services and related products which respond to basic needs and bring a better quality of life while minimising the use of natural resources and toxic materials as well as the emissions of waste and pollutants over the life-cycle so as not to jeopardise the needs of future generations” (OECD 2002). In addition, students may be taught how the economic activity of one country can cause international social inequality; for instance, economic, environmental and social unsustainability resulting from exportation of natural resources and unfair utilisation of cheap labour.

4. DESIGNING A SCHOOL CURRICULUM (p. 26)

“Significant themes offer schools opportunities for engaging students and integrating learning across the key competencies and the different learning areas. Such themes include:

Sustainability: students investigate the long-term impact of social, scientific, technological, economic, or political practices and consider alternatives that might prove more durable for the economy, for society, and for the environment.”

Recommendation: This is a crucial theme. However, considering its complexities, it may be an enormous task for a school to design and implement this component within its curriculum. Considering the non-mandatory nature of school curriculum development, it may lead to the shelving of this theme, as noted by UNESCO (2005a, p.24):

In the formal education sector, the pressure of time, and other targets and initiatives, limit the take-up of Education for Sustainable Development initiatives which are often seen as separate and additional to the standard curriculum. Education for sustainable development should not

be seen as 'one more subject' to be added to an overcrowded curriculum but as a holistic or 'whole school approach' where sustainable development is seen as a context for delivering existing aims of education and not as a competing priority. Weaving Education for Sustainable Development as a thread through the learner's passage through the educational system - from pre-school to higher education institution - will maximise its impact.

While it is important to provide schools the freedom in deciding on how this is implemented, schools need to be provided with the necessary support (in terms of funding and resources) for the incorporation of this theme. This is especially important considering that the majority of New Zealand teachers do not have prior training in sustainability issues.

GENERAL RECOMMENDATIONS

SOC recommends a more explicit reflection of the principles of sustainability within the New Zealand curriculum. Education for sustainability should be based on the “ideals and principles that underlie sustainability, such as intergenerational equity, gender equity, social tolerance, poverty alleviation, environmental preservation and restoration, natural resource conservation, and just and peaceable societies” (UNESCO 2005b. Annex II, p.3). Principles of sustainability contained in the Rio Declaration, can serve as a base, from which to “identify knowledge, principles, skills and values on which they will create ESD or reorient existing education to address sustainability” (*ibid.*).

Some of these principles have already been implicitly incorporated in the draft curriculum. For example on page 10, “equity” has been noted as one of the values that New Zealand students are encouraged to appreciate. This value can be explicitly associated with the principles of inter-generational equity and intra-generational equity of sustainability.

We are disturbed that the draft curriculum barely makes reference to the Treaty of Waitangi. We believe education about the Treaty as a founding document of this country is central for the movement forward as a collaborating, cooperative, inclusive and sustainable nation.

We recommend that MFE initiates a process where sustainability concepts and principles are identified, to be incorporated within the eight learning areas.

For instance, the learning area *Technology* (p. 23) could emphasise the importance of technological and material efficiency for sustainability. Technical improvements need to go hand-in-hand with responsible consumption if there is to be a truly sustainable society. The limitations and drawbacks of technological advances on the other hand can be discussed under the sub-component, *Nature of Technology*. This section could point how:

- technical efficiency may result in lowered costs, leading to increases in production and consumption, offsetting the initial gains of environmental improvements (Sanne 2005).

- new technologies often make older ones obsolete very quickly, constantly generating demand for new products. For example, the rapid upgrades of computers and mobile phones have resulted in a pile up of electronic waste.
- portrayal of technology is often one-sided; usually only the advantages of new technology are made known publicly, while its economic, social, political, and cultural effects are not mentioned (Kanner1998).

In conclusion, we would like to see the emergence of an education system where students acquire a clear understanding and appreciation of the principles of sustainability.

References

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