Chapter 68

Pass, Fail, or Incomplete?
Analyzing Environmental Education in Nova Scotia's Sixth Grade Curriculum

Elizabeth Spence
Dalhousie University, Canada

Tarah Wright
Dalhousie University, Canada

Heather Castleden
Dalhousie University, Canada

ABSTRACT

This chapter investigates the presence and status of environmental education principles, as well as factors for encouraging positive environmental behaviour in students, within three sixth-grade curricula in Nova Scotia, Canada: science, social studies, and health education. The results of the research show a strong reliance on knowledge-based connections to the environment and less importance shown to experiential learning, attitudes, and values. The results also reveal a significant decline in the time and resources allotted to environmentally focused education of these subjects. The effect is a diminished and marginalized environmental education presence in sixth-grade education in Nova Scotia within the context of the Decade of Education for Sustainable Development.

INTRODUCTION

Environmental education (EE) has grown in importance since its formal, global introduction in the 1972 Stockholm Declaration. Since then, numerous charters and declarations have further defined and developed the concept of EE. Presently, there is a global emphasis on educating ecologically literate citizens; this is most evident through the UN Decade of Education for Sustainable Development (2005–2014), and the growing acceptance and popularity of related concepts such as Education for Sustainability (EfS). While there are some differences among these concepts, EE is not in competition with Education for Sustainable Development (ESD), or EfS; rather, these approaches are complementary (Mckeown and Hopkins, 2003). EE, ESD, EfS and other similar

educational concepts can, and often do, work together to raise public awareness and bring about positive environmental and in some cases social change.

EE, ESD, and EfS are alike in calling for a reorientation of formal education as well as an increase and improvement concerning awareness of environmental issues and actions to undertake (Mckeown and Hopkins, 2003; Henderson and Tilbury, 2004). ESD uses education as a means to achieve environmental, economical, and social sustainability (Mckeown and Hopkins, 2003). This type of education emphasizes investigating the connections among physical/biological, socio-economic environments, and human actions and development in all disciplines (United Nations, 1992). EE works to develop a population that is aware of, and concerned for, the natural environment. The emphasis is placed on knowledge, skills, attitudes, motivations, and actions aimed towards solving current environmental problems and helping to prevent future troubles (UNESCO-UNEP, 1976; NAAEE, 2010). Furthermore, EE has an interdisciplinary focus on social, political, cultural, ethical, and environmental issues and the interconnectedness of these topics (Hart, 2003). EfS focuses more on the ability to create a sustainable future, complex social issues, and developing skills and knowledge to manage complex issues (Henderson and Tilbury, 2004). While distinctions are often made between EE, ESD, and EfS, the similar end goals enable these educational concepts to work well together. For this study, EE was selected as the primary educational concept due to its focus on knowledge, attitudes, skills, awareness, and participation, which is similar to the curriculum goals and structure of public elementary education in Nova Scotia, as well as the broad range of EE in how it can encompass nature study, conservation education, outdoor education, social problems, values, human health, and more through interdisciplinary learning (Hart, 2003; Moroye, 2009).

In Canada there are various initiatives meant to improve the status of EE nationwide. In 2000, the Council of Ministers of Education, Canada released a report, *Education for Sustainability: The Status of Sustainable Development Education in Canada*, which was prepared by Manitoba Education and Training (Sustainable Development Initiative). This report provides a historical review of sustainable development, an inclusive view of progress for ESD in Canada, and presents a framework for future action (Council of Ministers of Education, Canada, 2000).

The years 2005 and 2006 witnessed collaboration among Learning for a Sustainable Future, Manitoba Education, and Environment Canada to promote the development of provincial/territorial ESD working groups. Also created was a national group, ESD Canada, which is an association of ESD experts and working groups that is hosted by Learning for a Sustainable Future (Council of Ministers of Education, Canada, 2010). The Education for Sustainable Development Working Group identified four priority areas for successful ESD in Canada, which mirror the focus of this research:

1. Integration of sustainable-development concepts into curricula;
2. Provision of ESD-related pre-service and in-service teacher education and support;
3. Development of ESD-related teaching resources and materials; and
4. Implementing and assessing ESD programs at school and school district/board/division levels (2010, p. 11-13).

That these areas have become priorities demonstrates the growing significance of environmentally-related education in Canada and the timeliness of this research.

Three of the more recent nationwide documents are the Council of Ministers of Education Canada's *Learn Canada 2020* (2008), which aims to provide all Canadians with quality, life-long learning op-

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