

Teaching for Sustainability

Using children's literature to develop understandings of ecological sustainability

Deborah Bradbery

School of Education, The University of Newcastle

Debbie.Bradbery@newcastle.edu.au

Abstract

A major cross curriculum priority in the new Australian curriculum is educating for sustainability. Children's literature can be used to help our youngest citizens to assume responsibility for creating and enjoying a sustainable future. The author will examine ways in which some specific examples of Australian children's literature can be used to help children examine and change personal lifestyles; to identify, investigate, evaluate and undertake appropriate action to maintain, protect and enhance local and global environments; to challenge preconceived ideas, accept change and acknowledge uncertainty and to work cooperatively and in partnerships with others. This paper will examine ways in which some specific examples of children's literature can help to develop children's understandings of a sustainable future.

The introduction of the Australian Curriculum into Australian schools has brought with it a new curriculum perspective, Sustainability. The aim is to "enable the delivery of learning area content at the same time as developing knowledge, understanding and skills relating to Sustainability" (ACARA, 2011). Although often seen as simply environmental education teaching about Sustainability, as indicated by ACARA (2011), involves far more than teaching Environmental education. By identifying the need to teach students about living for a sustainable future as a specific cross-curricular priority, the Australian Curriculum has brought the teaching about Sustainability to the forefront of all curriculums increasing its emphasis in the education of young Australians. To teach about Sustainability is to teach about the interconnectedness of economic, social, cultural and environmental issues.

Sustainable lifestyles cannot be attained without acknowledging the interplay of all of these components.

Sustainability

The Australian Curriculum goes on to define sustainability education as futures focussed and interconnected to issues of global significance.

Sustainability education is futures-oriented, focusing on protecting environments and creating a more ecologically and socially just world through informed action. Actions that support more sustainable patterns of living require consideration of environmental, social, cultural and economic systems and their interdependence. (ACARA, 2011)

Developing an understanding of living for a sustainable future is vital in helping humans to take responsibility for their own actions, respect and value diversity and see themselves as contributors to a more peaceful and sustainable world. As Cowan, (2011) asserts, schools play an integral role in shaping young minds and dispositions and as such they have an inherent responsibility to ensure that children receive a well-rounded and critical view of the world so that they develop an understanding of the accountability of humans, our impacts and responsibilities. Global issues such as environment, development, health, peace and human rights are all inextricably linked (Selby, 2004) so to educate for sustainability is to educate for global citizenship. To elicit some enactment of these concepts in primary aged students, understandings of world issues and a commitment to change can be fostered, especially to the eradication of global poverty and inequality. This may then help future generations to shape a better future for the world and assist young children to become more engaged global citizens, “who act with moral and ethical integrity... work for the common good, in particular sustaining and improving natural and social environments...[and] are responsible global and local citizens”, one of the expressed goals of the Melbourne Declaration on Educational Goals for Young Australians (AE Council, 2008, p.9). The Melbourne Declaration on Educational Goals for Young Australians which was developed by all the Education ministers of all States and Territories and the federal Education minister of the time, and now the current Prime Minister, the right honourable

Julia Gillard, identified key areas that need to be addressed for the benefit of both individuals and Australia as a whole. The Australian Curriculum has been designed to build on the educational goals of the Melbourne Declaration. The inclusion of Sustainability as a cross curricular priority in the Australian Curriculum (ACARA, 2011) was aimed at enabling the delivery of learning area content at the same time as developing knowledge, understanding and skills relating to Sustainability. It has been noted by many researchers (Evans, Whitehouse, & Hickey, 2012; Ferreira, Ryan, Davis, Cavanagh, & Thomas, 2009; Fitch & Desai, 2012; Selby & Pike, 2000; Ferreira & Ryan, 2013) that building the capacity for teachers to teach about Sustainability is vital for teaching in the 21st century.

Teaching for Sustainability

Primary school teachers in all states of Australia (Queensland and the Northern Territory in 2012, ACT in 2013, South Australia in 2013, Tasmania in 2012, New South Wales in 2014 and Western Australia by 2015) are currently being asked to implement a new Australian Curriculum (ACARA, 2011) which has at its core three cross curriculum priorities, namely Aboriginal and Torres Strait Islander histories and cultures, Asia and Australia's engagement with Asia and Sustainability. It is significant that with the introduction of the new Australian Curriculum into NSW primary schools in 2014 little emphasis has been placed on developing the knowledge, skills or understandings of teachers which could help them to see the benefits of and develop a belief in embedding and integrating these cross curricular priorities into an already crowded, assessment focussed curriculum. One of these cross curricular priorities in particular, teaching about a Sustainable future, is far more complex than it may at first appear. Unless primary teachers are offered some pedagogical strategies for embedding this priority into their teaching, while still covering the curriculum requirements, it may be either treated as a one off unit of work where the "box has been ticked" or ignored completely. While action has been taken in previous syllabus documents to ensure primary school teachers taught about some sort of ecological awareness, never before has teaching about a Sustainable future been pushed to the forefront of syllabus documents. The question is then; will primary teachers feel equipped, confident and believe in the importance of this priority enough to teach this cross curricular priority as it is intended, embedding it into their syllabus requirements? There is a considerable body of research literature that demonstrates a strong correlation between teachers' knowledge,

beliefs, and attitudes and their classroom practices (Aguirre & Speer, 1999; Dwyer, 1991; Richardson, 1996; Sato & Kleinsasser, 2004). At the same time, there is substantial debate and uncertainty about precisely how beliefs and practice are related and how they interact. Anderson and Helms (2001), for instance, argue that “while it is clear that changes in teacher values and beliefs are central to reform, the nature of these changes and the circumstances under which teachers personally can best reassess these values and beliefs are not fully understood” (p.13). This uncertainty about beliefs and practice is clear from the following research conclusions: Dwyer et al. (1991) found that “instructional change can only proceed with a *corresponding* change in beliefs about instruction and learning” (p. 52); Richardson, Anders, Tidwell and Lloyd (1991) found that a change in beliefs *preceded* change in practices, and; Guskey (Guskey & Huberman, 1995) found that a change in beliefs will occur only after *evidence* is provided about changes in student outcomes. Richardson (1996) attempted to summarise what is known about beliefs and practice, stating that “beliefs are thought to drive actions; however, experiences and reflection on action may lead to changes in and/or additions to beliefs” (p.104).

Children are highly capable individuals able to recognise and discuss the relationships between the ecological, economic, cultural, political, and social aspects of Sustainability. Before any sense of ecological Sustainability can be achieved issues of economic, social, political and cultural Sustainability must be addressed. The politically and economically oppressed peoples of the world do not have the will or the might to address ecologically Sustainable issues until they can feed their children and live in some sort of political freedom. People who are hungry or searching for water from clean, uncontaminated sources, or trying to escape cultural and political persecution cannot be expected to make decisions about environmental ecology over decisions about life and death. In light of children and young people’s increasing fears pertaining to the environment (Strife, 2012) the development in young people of a sense of optimism about the future coupled with a realistic understanding of the difficulties and challenges ahead may help to achieve an ecologically Sustainable future. Through providing our children with opportunities to develop and discuss ways to contribute to a politically, socially, ecologically and culturally Sustainable world they will be able to

appreciate the wonders and peoples of the Earth; live in a world where everyone has sufficient food for a healthy productive life; assess, care for and restore the state of the planet; create and enjoy a better, safer, more just world and be caring citizens who exercise their rights and responsibilities locally, nationally and globally. (UNESCO, 2005, n.p.)

Utilising Children's Literature

Children's literature, picture and story books in particular, can be used as a powerful tool to help children and young people become aware of the need to actively engage with, understand and assume responsibility for creating and enjoying a Sustainable future (Reid, Payne, & Cutter-Mackenzie, 2010). It has long been acknowledged that including quality children's literature into the teaching and learning programs of primary teachers can add depth to specific topics for children by adding detailed information (Benedict & Carlisle, 1992), can lend themselves to presenting difficult or sensitive concepts to children in a palatable manner and can pique children's curiosity leading to changes in attitudes and actions (Farris & Fuhler, 1994). Strongholds of peace and dispositions of change and Global Citizenship can be built in the hearts of children when they realize the sorrow, misery, horror, and foolishness of war, political upheaval, social disintegration and environmental degradation after reading powerful and enduring texts (Newton, Stegemeier, & Padak, 1999). British author Aidan Chambers (cited in Tomlinson 1998, p3), once stated "It is through literature that we most intimately enter the hearts and minds and spirits of other people. And what we value in this is the *difference* as well as the human similarities of others." Stories that encourage children to develop critical thinking abilities, an appreciation for diverse cultures, and a sense of fairness are important for a child's development (Baker, Martin, & Pence, 2008). Children's literature can be used to help children examine and change personal lifestyles to secure a sustainable future; to identify, investigate, evaluate and undertake appropriate action to maintain, protect and enhance local and global environments; to challenge preconceived ideas, accept change and acknowledge uncertainty and to work cooperatively and in partnerships with others (Medress, 2008).

There has long been a substantial body of research supporting the many benefits of using children's literature and picture books in classrooms to improve the literacy skills of our

students (Galda, Ash, & Cullinan, 2001; Galda & Cullinan, 2006), but there have been far fewer studies elucidating the benefits of utilising children's literature to help teach for a sustainable future (Reid, Payne & Cutter-Mackenzie, 2010). Children's literature, particularly that termed as "picture books", can explore themes, concepts and issues that are both complex and contradictory and can lead children into a 'sophisticated and satisfying discussion' (Baddeley & Eddershaw 1994, p.5). While research has shown that children's literature can be used to teach certain moral values (Marriott & Evans, 1998) it also suggests that children's literature can also be used to expose the reader to certain moral dilemmas and give them the opportunity to evaluate and develop an understanding of the concept of citizenship. Some of the problems or issues seen in children's literature range from:

personal problems of family and peer relationships, but also encompasses questions of wider social and political interest such as race and gender, the environment and conservation, social and community conflict, war and peace and even global interdependence (Marriott, 1998, pp. 6-7).

It can therefore be suggested that children can fill the gaps of their own understandings about issues such as a sustainable future through the use of relevant and engaging literature. While most children globally are influenced more by television, the most pervasive form of media, literature can still provide children with the opportunity to view issues from multiple perspectives (Merryfield & Wilson, 2005) and question the media opinions they are being served. Literature gives children the opportunity to begin to form their own views and opinions and take on a more global stance.

As Stephens (1992) has asserted:

children's fiction belongs firmly in the domain of cultural practices which exist for the purpose of socialising their target audience. Childhood is seen as the crucial formative period in the life of a human being, the time for basic education about the nature of the world, how to live in it ... (Stephens, 1992 p.8)

Teaching about controversial issues, such as what is needed to be activated to secure a sustainable future for our earth, can be made easier and more meaningful when children's

literature is carefully utilised. Issues such as ecological degradation can be first raised when reading texts such as "The Waterhole" (2001) by Graeme Base. "The Waterhole" can be viewed as simple counting book but with a deeper study it is another text that can assist children to develop an understanding of the interdependence of all creatures on earth. It centres on a waterhole that is progressively drying up. While the book is essentially a counting book colourfully and deliberately illustrated for young children, the constant focus on the waterhole and its diminishing size as the water is used by an international collection of animals, is used by Base to show how water is essential to life. Without it the land withers and dies and life is lost, but as the first drops of replenishing rains return life begins to emerge again. This book is an ideal way to introduce children to the concept of saving water and caring for their local waterways. Having children examine the concept of drought and water shortages can help them to understand the importance of ecologically sustainable lifestyles. Children find it far easier to assimilate this kind of information when it is presented in the form of a story (Diakiw, 1990).

Another text that deals with the fragility of the earth, and the waterways in particular, is "Lester and Clyde" by James H. Reece (1991). This text is easily found in many junior classrooms throughout Australia and is regularly used as an early reader. This is the story of two frogs one a young and mischievous youngster (Lester) and the other an older, stayed frog named Clyde. Lester plays just one too many tricks and is kicked out of their beautiful wetland and heads off to find his own way in the world. He is shocked to find that not all ponds are like his, and in fact some have been destroyed and made unsuitable for frogs. He returns repentant and is embraced by Clyde and the story ends happily with the words of Clyde: "try not to worry, although it's so wrong, at least we're safe here...until Man comes along!"(Cairney, 2010). After having read and discussed the text students could be encouraged to respond from their own background and experiences. For example questions such as these could be asked: How does the pollution of the waterways affect the people in your local area? How does it affect people in Australia? How does it affect people around the world? How does it affect the natural environment? What are the causes of it? What are the solutions? Are the solutions the same for people everywhere? When something happens in one part of the world does it affect people in other parts of the world? How can this be a global issue? The student responses can then become the basis for follow-up

activities. Education for a sustainable future can empower students to change their ways of thinking, being and acting “in order to minimise environmental impacts and to enhance environmentally and socially sustainable practices” within schools and into homes and the wider community (Elliott & Davis, 2009).

Nodelman (1996) asserts that texts, such as Jeannie Baker’s ‘Belonging’, are able to not only educate but to also offer “access to a vast spectrum of ways of being human” (p.129). This beautiful collage picture book can be used to assist children in becoming citizens of the world that will care for and build a sustainable future. Study of this text shows how just one action can start something that can change a street and then a community, a country and perhaps the entire world. In her masterful picture book Jeannie Baker demonstrates that belonging is more than just inhabiting, that to truly belong we must enact a sense of community and shared values and work at and contribute to it. The book can help us to build a sense of community, belonging and empowerment over unhindered development in our own children. It can help us as educators to show children how to identify and explore the opportunities to participate in and influence decision-making locally, nationally, regionally and even internationally. By deconstructing this text’s visual elements children are able to use the knowledge and skills gained to build their own understandings of what it is to be a global citizen and to apply this to other parts of the curriculum. Baker shows how a community can work together to turn something that was uniform and uninspiring into a nurturing home not only for humans but also for local native plant and animal species that may have left the area long ago. Children can be offered different and varied perspectives on sustainable living through the use of such texts and Baker clearly demonstrates ways to achieve a sustainable future, even in one’s own neighbourhood, without placing economic burdens on the inhabitants. Baker’s texts show how “small wins” (Davis, 2005) can big impacts and help with developing understandings of a sustainable future.

As an author Baker is known not only for her artistry but also for her ability to encourage sensory, experiential, perceptual, relational, cultural and socially critical investigations of the environments and places featured in her books (Burke & Cutter-Mackenzie, 2010). In “Window” (1991) she visually describes the changing environment typical of many Australian city edges from rural and natural to semi-urban over a 24year period as seen through a window. The development of the community in her book is reminiscent of that of

many Australian communities in the last 25 years. The book allows for many interpretations of these changing environments and places. We can encourage our students to consider their own environments and ask: What if we could have a say about urban development? What if we could protect green areas in our neighbourhood? Students can then be asked to respond to a local community site that can be changed through human intervention. For children to be able to develop an active participation to assist their environment to develop a more sustainable future, children can be asked: What do we need to do to make our new window vision a reality? Who do we need to speak to? What processes do we need to undertake? In the author's endnotes to "Window" (1991) Baker calls for her readers to make a difference "by opening a window in our minds, by understanding how change takes place and by changing the way we personally affect the environment".

Another text that focuses attention onto the impact of urbanization on the natural environment is Graeme Base's "Uno's Garden"(2006). Readers of this text could be encouraged to chart the data presented on each page to illustrate the effects on non-sustainable urbanization (Selby, 2000) and to work for habitat restoration and demonstrate the benefits of reforestation. When Uno realises the effect his "love" for the forest he has found has on the lush plants and the most fantastic creatures he has ever seen, to help combat the encroaching civilisation, he starts a special garden that does not have the vegetables and flowers of other gardens, but allows his children and grandchildren to have hope for the future. This text helps us to assist our children to examine and change personal lifestyles to secure a sustainable future; to identify, investigate, evaluate and undertake appropriate action to maintain, protect and enhance local and global environments; to challenge preconceived ideas, accept change and acknowledge uncertainty and to work cooperatively and in partnerships with others to truly embody and enact the knowledge, skills and values of living for a sustainable future (Davis, 2008).

Conclusion

Whilst it can most emphatically be argued that children's literature can assist young people in understanding what it means to create and develop a sustainable future, without active participation, a sustainable future will always remain a fictional outcome, just a "happy ending". Truly engaged and passionate educators understand the value and benefits of a

holistic education that provides emotionally and relationally healthy learning communities with intellectual environments that produce not only competently technical, but also secure, caring, literate and actively participatory human beings. Developing an understanding of what it means to be a global citizen in the 21st century, of helping to secure a sustainable future may seem like a distant goal, but through introducing even our youngest citizens to an understanding of sustainability we can bring about “small wins” (Davis, 2005) which may in turn lead to global change over time. Literature can give our children the opportunity to form bridges between their own internal lives and what is happening in the environment around them and the world beyond (Medress, 2008). It can give them the capacity to understand how living their lives with greater ecological awareness can impact on their own worlds and also the world community and planet. Children’s literature can be a catalyst in developing people who will identify and solve problems, working cooperatively together with an awareness of the historical, geographical and cultural origins of these problems and demonstrate a sense of tolerance, justice and equity for all.

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