

## ***Education for sustainability in the early years: beyond recycling and veggie gardens***

***Robert Pratt***



Robert is an Early Childhood Educator. He has worked in a variety of Early Childhood settings in Australia and overseas for over 16 years. Throughout his life Robert has enjoyed a love and appreciation for the environment. He feels fortunate that he has the opportunity to incorporate his passion for the environment with his work in Early Childhood Education. For the eleven years until 2008 he worked at Brisbane's Campus Kindergarten where he developed and coordinated many of the centre's sustainability initiatives. Robert works collaboratively with children, teachers and the community to embed sustainability ideals, concepts and actions into everyday life. In 2008 he received an Excellence by a Teacher Highly Commended award at

the Australian Government National Awards for Quality Schooling. Robert is presently focusing his attentions on sharing his Education for Sustainability experiences through conference presentations and education publications. [This article is a snap shot from Chapter 4 - *Practical possibilities and pedagogical approaches for early childhood education for sustainability* by Robert Pratt in a forthcoming publication, *Young Children and the Environment: Creating Sustainable Change through Early Education* by Julie Davis (Ed.)]

While the current economic crisis affecting the world has taken some of the limelight from environmental and sustainability issues in the media, global warming and associated issues such as climate change remain critical – evidenced by recent events in Australia such as the bushfires in Victoria and extreme rain events in Queensland.

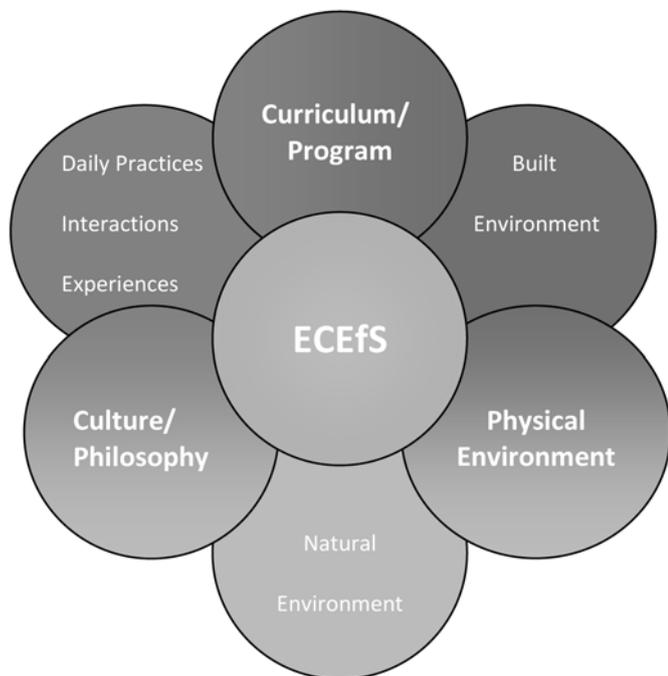
For several decades now there has been a gradually rising level of interest in addressing environmental issues through education. Early childhood educators are increasingly developing and implementing programs with an environmental focus. Traditionally, these programs have focused on children's relationships and interactions with nature (education *in* the environment). More recently, projects such as recycling and water and energy conservation have become more apparent (education *about* the environment). A truly effective Education for Sustainability (EFS) program must, however, address issues beyond this typical environmental realm. A holistic approach to EFS will engage children in experiences that empower them as active citizens and powerful agents of change (education *for* the environment). Such a holistic approach will give consideration not only to ecological sustainability but also to social, economic and political sustainability. (Fien, 2004; UNESCO, 2006)

This article will briefly discuss some of these possibilities and explore strategies for initiating and maintaining an EFS program (Sustaining Sustainability).

### **Early Childhood Education for Sustainability**

Life in the 21<sup>st</sup> century is presenting humanity with many challenges including economic recession, food shortages, poverty, global warming and ethnic and religious conflict. I believe, however, that children as young as 3 or 4 years (possibly even younger) already possess significant amounts of knowledge and understanding about such issues. Equipped with further knowledge, skills and support, children can develop the resilience and the capacity to deal with these challenges, rather than being frightened by such issues. I believe that educators are doing children (and humanity) an injustice if they try to shelter young children or 'bubble wrap' them to 'protect' them from such challenges. The following provides a model and some examples of how such challenges may be addressed through early childhood education for sustainability (ECEFS).

ECEFS encompasses three broad elements; all are interconnected and of equal importance (see *Image 1*):



**Image 1: A Model of Early Childhood Education for Sustainability**

This model illustrates the importance of the three central elements of ECEfS as they may be implemented in an early childhood setting. These are the physical environment, the curriculum/program and the culture/philosophy of the service.

- 1. The physical environment** - both built and natural. To ensure a service's sustainable operation and to promote modelling of sustainable practice, buildings should incorporate elements of sustainable design including water tanks, solar energy, and grey water treatment. Outdoor playspaces should aim to be as natural as possible providing opportunities for children to immerse themselves in the richness of nature.
- 2. The curriculum/program** - EfS curriculum content must be fully integrated into the program. Practices promoting sustainable living need to become an everyday part of our lives. Children must have opportunities to connect with nature, learn about our environment, our impact upon it and develop the skills to act to improve our environment. Daily practices could include maintaining an

organic fruit and vegetable garden, recycling, re-using and reducing waste, composting and worm farming.

- 3. Philosophy/Culture** - Early Childhood services must aim to promote a culture of sustainability whereby all members of the community (children, teachers and families) become ecologically-, socially-, economically- and politically-aware citizens. (Fein, 2005) A philosophy or culture that recognises and values the inputs of all community members - and one that recognises children as citizens of the present and embraces active citizenship - is critical. Core values must include equity in all respects: between generations, between humans as individuals or communities, and between the human and non-human species that inhabit this planet.

The questions below may be used by early childhood educators when considering their own teaching philosophy and approach to EfS.

**Do you believe?-**

- Everyone and everything on earth should be treated with respect?
- Women and men are equal?
- Every child should have access to education?
- Everyone should have access to health care?
- Everyone should have access to clean water and clean air?
- We should all live in a world free of persecution and conflict regardless of religion, culture, or ethnicity?
- We should consider the needs of future generations?

**These are all elements of Sustainability**

The following documentation shares an example of children participating as active citizens in an environment that values their input and ideas and empowers them as agents of change. It also highlights the fact that children already have some knowledge and understanding of issues such as global warming and are capable of contributing not only in a dialogue on the subject but also in offering real solutions:

## Kindy Perspectives on Global Warming

Using the newspaper article (right, from the *Courier Mail*, 2008) as a provocation, Robert (teacher) introduced the topic of global warming to the Kindy friends. They shared their knowledge, thoughts and ideas:



**James M:** *The Earth is getting a bit hot.*

**James B:** *One day everything on Earth might be dead because of pollution.*

**Amitai:** *The Earth is getting too hot.*

**Kai:** *You have to stop burning fires.*

**Aidan:** *Cars make pollution.*

**Robert (teacher):** *So what could we do to help?*

**James M:** *Catch a bus.*

**Baylen:** *Go on a sail boat.*

**James B:** *Sail boats do use petrol when they are going places they can't sail.*

**Baylen:** *Buses also use petrol.*

**Robert (teacher):** *Do you think a bus full of people coming to kindy or all those same people in lots of cars would make more pollution.*

**Everyone:** *The cars!*

**Dylan:** *When people burn pollution people get hot.*

**Laura:** *When the Earth gets hot it actually breaks up.*

**Natahlia:** *The sun gets closer and closer and the animals will die.*

As the children shared their individual thoughts and ideas, together they began to construct knowledge and a deeper understanding of the topic. It was at this point that the 'big ideas' really began to develop:

**James B:** *The trees are dying but they're holding the Earth together, but if the trees die the Earth will die and people will die. We could make a chemical reaction thing inside a car to keep pollution inside so pollution doesn't get out. A chemical reaction inside would make pressure to make a turbine go and make the wheels turn and you could do it in boats also. We have to learn how to make a chemical reaction that doesn't make pollution though.*

**Sarah:** *How about putting something cold in it so it doesn't burn?*

**James B:** *You can't use cold otherwise you couldn't get a chemical reaction.*

**Amitai:** *You could use a kayak to paddle and not make pollution – where there is water.*

**Laura:** *We shouldn't cut down too many trees.*

**Robert (teacher):** *If we cut down too many trees they won't be able to do their job soaking up all the carbon dioxide and cleaning the air.*

**Baylen:** *Trees keep our environment safe 'cause they suck up all the hot dirty air into their bodies, turn it into cool clean air and move it back out into the environment.*

The following day, the topic of global warming came up again at group time:

**Aidan** proudly explained that he caught a bus to kindy instead of driving today. (Aidan's mum had explained earlier that Aidan had spoken to her the previous night and shared his thoughts about global warming – suggesting they could catch a bus to kindy.)

**Robert (teacher)** asked, "What else could we do?"

**James B:** We could write to the government of the world.

A conversation followed discussing what the government was, what it did and who the leader of the Australian Government was.

**James M** eventually said, "Kevin Rudd"

The kindy friends then went on to compose the following letter to Australia's Prime Minister:

Dear Prime Minister,

We are the Kindy A team from Campus Kindy in Brisbane. We are 3, 4 and 5 years old. We are worried about global warming and pollution. There is too much carbon dioxide and the Earth is getting hotter.

We need to make no more pollution. Maybe we could catch a bus, ride a bike or we could make a chemical reaction car with no pollution. We need to plant more trees.

Can you help us solve this problem? What else can we do?

Love from the Kindy A friends at Campus Kindy

Several weeks later the children received a supportive response from the Prime Minister. Their voices had been heard on a national level!

Feeling empowered by such recognition, the kindy children went on to organise the planting of 200 native plants as part of a Campus Kindy community project. One of the children decided he would like to write an 'Earth Anthem' sharing his feelings about the Earth. With the support of community members with musical knowledge,

the 'Earth Anthem' was composed, learnt by the rest of the class, and eventually performed at the end of year concert.

### **The Earth Anthem** (by James Brunton)

*Giraffes, fish, lady-beetles, butterflies and birds.*

*It's our home we all live here, all the creatures of the Earth.*

*FOOD, ENERGY, WATER, TREES*

*Enough forever and ever.*

*We must all be nice and we must not fight and look after each other, look after each other.*

*FOOD, ENERGY, WATER, TREES*

*Enough forever and ever.*

*We must all be nice and we must not fight and look after each other, look after each other.*

*LOOK AFTER EACH OTHER!*

### **Sustaining Sustainability**

The possibilities for Education for Sustainability are limitless. With so many possibilities, combined with the countless other responsibilities of early childhood educators, and the ever present pressure to 'do something for the environment', it can feel overwhelming to begin the process of addressing sustainability issues in your early childhood setting. Therefore, I have developed the following suggestions based on my experiences as an early childhood educator for sustainability. These provide early childhood educators with a set of strategies to make 'sustaining sustainability' more achievable and to 'spread the load'.

- Establish a *Sustainability Committee* to coordinate all EfS initiatives and strategic planning. The committee could include parents, children and staff.
- Develop a Sustainability Action Plan – detailing and prioritising your services goals and actions for sustainability.
- Compile and use Sustainability Checklists
- Conduct an Environmental Audit – energy, water and use of chemicals, cleaning practices, waste management and resource management
- Calculate the centre's ecological or carbon footprint



# Feature Articles

- Review the service's policies pertaining to sustainability i.e. Natural Environment, Cleaning, Waste Management Policies, etc.
- Take small steps initially - one goal at a time!
- Celebrate every success
- See challenges as opportunities to learn
- Access funding to support the program
- Maximise opportunities to engage in EfS research with educational institutions and other relevant bodies
- Establish and maintain networks with other like-minded organisations, services and professional bodies.
- Provide ongoing professional development and information sessions for all staff members and families. These sessions must explore the relationships between the services culture/philosophy and EfS concepts.
- Review the early childhood educational resources available and prioritise the use of those that support sustainability.
- Visit a range of websites for education and information.
- Visit early childhood services already implementing sustainable practices to learn from them.
- Advocate and lobby government and non-government organisations at all levels to support early childhood education for sustainability with research, pre-service and in-service training and resources.

For further information and details on environmental checklists, environmental audits, ecological footprint calculators, websites,

professional organisations etc. please contact Robert at: [ecefss@gmail.com](mailto:ecefss@gmail.com)

This article has briefly explored some of the educational and practical possibilities that early childhood educators can consider when developing and implementing Education for Sustainability. Actioning any of these possibilities will make small steps that contribute towards a more sustainable future. They also provide opportunities for children to develop a greater understanding of their role in ensuring such a goal is achieved. However, for an Education for Sustainability program to reach its full potential, there must be a shift in the way in which children are presently taught. No longer will it be acceptable for children to remain passive recipients of knowledge as adults make decisions for them about their learning. Children must be actively engaged in the learning process, safe in a democratic environment where they can share ideas and contribute to decision-making processes. In such an environment, children will develop a sense of agency to 'make a difference'. They will be taking their first steps, and feeling empowered, as active and knowledgeable citizens for now and for a sustainable future.

## References

- Campus Kindergarten (2008). *Kindy Perspectives on Global Warming*, Brisbane.
- Fien, J. (2004). Education for sustainability. In R. Gilbert (Ed.) *Studying Society and Environment: A Guide for Teachers*. 3rd edition. Thomson Social Science Press: Sydney, pp.184-200.
- Pratt, R. (forthcoming). Practical possibilities and pedagogical approaches for early childhood education for sustainability. In J. Davis (Ed.) *Young Children and the Environment*. Cambridge University Press: Melbourne.
- UNESCO (2006). *Teaching and Learning for a Sustainable Future*. [On-line] URL:<http://www.unesco.org/education/tlsf> Accessed on 15 May 2009

***Children must have opportunities to connect with nature, learn about our environment, our impact upon it and develop the skills to act to improve our environment.***