Linda Condon - Director International Green Skills Network, TAFE Directors Australia

What is Education for Sustainability?

Education for sustainability (EfS) is about the present and the future. It is about learning to recognise that actions taken today will have an impact in the future and that all of us have the ability to change the way we live and work. We also need to learn the importance of connections and relationships and how we can work together towards achieving sustainable outcomes (see Appendix 1).

Education for sustainability can be empowering, and can help overcome a sense of helplessness, often seen in young people. It prepares students to take action, individually and collectively through the encouragement of critical thinking and problem solving. The transformative rather than transmissive style of education used in EfS provides the opportunity for students to explore and evaluate challenging and emerging issues, examine evidence, and form solutions for a sustainable future. Education for sustainability deals with complexity and uncertainty and allows students to explore the difficult issues without judgement or fear of being ridiculed. It can also encourage them to realise that there is rarely a single solution or a single perspective. This acknowledges respect for diverse, well-founded views and the realisation that new knowledge is continuously being generated which can affect the way we act in the future.

Therefore education for sustainability encourages open dialogue, exploration of values and attitudes and the development of critical thinking and problem solving by exploring connections between concepts, ideas, processes and outcomes. It also encourages holistic thinking – that is recognising that we are part of a larger system which entails finding sustainable solutions that are creative through working together in partnerships with others.

So what are the challenges for educators to deliver EfS?

One of the first challenges for EfS is to ensure that leaders in education realise that reorienting education to achieve sustainability is essential. Fortunately, at the international level, EfS is recognized as important and central to the success of sustainable development around the world. At the sixth meeting of the UN Commission on Sustainable Development, delegations from countries worldwide repeatedly mentioned the importance of EfS in achieving goals of sustainability. In Australia at many levels of Government, in education, in business and in the community, there are now leaders who support and encourage the teaching of EfS with many great examples emerging.

Decisions must be made not only to create another "add on" subject, but also to reorient entire education programs and practices to address sustainability. Another challenge is to ensure that educators are not only being asked to teach about sustainability but to change their teaching methods to transformative (engaging students to achieve change) rather than transmissive methods which is only about provision of information rather than exploration of ideas and concepts.

To add to the task, EfS is cross-disciplinary resulting in a challenge to all teachers to respond by asking them to change the way they teach, what they teach and how they teach.

Even more challenging, sustainability, rather than being clear, simple, and unambiguous, has concepts which are complex. This complexity stems from the intricate and complicated interactions of natural and human systems. The challenge to educators is to derive messages that illustrate such complexity, without overwhelming or confusing the learner. This challenge can also be illustrated in the continual debates around the 'climate change' science in Australia with many non-experts buying into the argument without fully understanding the intricacy of and uncertainty in science.

So what is needed to assist teachers are learning resources, incentives, support to build confidence in their sustainable knowledge and teaching skills and above all a willingness in teachers to challenge the past ways of teaching and create a new way of engaging students.
What are the opportunities?

Teachers have always understood the importance of engaging students effectively. EfS has been shown to more effectively engage students than past methods of repetitive learning and unquestioning pedagogy. As a result one of the great opportunities to emerge in using the principles of EfS (see Appendix 1) is that students will respond more openly and more enthusiastically to ideas and concepts.

Encouraging problem solving in groups and supporting an environment where students are able to question and critique long held assumptions, is how we, as teachers, can promote the thinkers for the future. Today’s students need to be able to use a range of skills in different contexts, and this is central to EfS. System thinking and recognising the effects of actions today on our future is also fundamental to EfS. Give a student a can of tuna and ask them where the content and container might have come from and watch the extraordinary responses that emerge – they will never think of a can of tuna the same way again.

With the principle of collaboration celebrated in EfS, opportunities emerge where students and teachers develop partnerships and stronger relationships. This often progresses as a more respectful understanding is reached between opposing views resulting in the generation of ideas for solutions to complex problems. Is this all too idealistic? It may be but it is worth trying to reach students to create greater cooperation and a deeper understanding of the confusing and complex problems faced by the world today.

Finally, increasingly employers are looking for graduates that know how to solve problems, can think critically and holistically, work in teams and partnerships and understand the importance of questioning long held assumptions – so students who have been taught EfS will be held in high regard because they will have developed many of these skills.

How to integrate EfS?

There are many ways in which EfS can be integrated. There are now a range of Units of Competency that are specifically designed to address the sustainability technical skills in manufacturing, automotive, building and other trades and professions. In addition, rather than develop more add-ons and crowding the curriculum further, it is often more appropriate to re-orientate the curriculum. Some of the ways this can be done are:

- Including ideas and content which focuses on sustainable practices such as in hairdressing – discuss water conservation, use of toxic chemicals and their effect on people and the environment, washing and drying of towels and energy consumption etc
- Through assessment tasks such as in tourism – ask students to compare an eco-tourism resort with a standard resort or in carpentry – ask students to examine the difference between plantation timber (with FSA) to old growth forest timber
- Allow the students to lead the discussion on sustainable practices in their industry – they often even know more than we do!
- Set up working groups and study groups with a particular focus on sustainability and get the groups to report back to the class
- Design projects for group work which have a focus on sustainability and then students might even come out with some real outcomes which change old, unsustainable practices

---

These are just some ideas that you can use with students but there are many great resources available, so it is worth doing a little research and using them with your students. In the end, we need teachers who are enthusiastic and prepared to take on a new challenge.

Appendix 1


1. Envisioning
Envisioning (or Futures Thinking) creates a link between where we are now and where we want to be in the future, so we can plan a series of steps to get us there.

- It provides direction and energy to make changes by harnessing our deep desires.
- It identifies relevance and meaning for different people.
- We can explore how to achieve change.
- It results in ownership of visions, processes and outcomes.

*If you want to build a ship, don’t drum up people to collect wood, and don’t assign them tasks and work, but rather teach them to long for the endless immensity of the sea.* Attributed to Antoine de Saint-Exupery, French author and aviator

2. Systems Thinking
Systems Thinking can help us to understand the big picture we are working within, and to create solutions that go beyond just addressing the isolated symptoms of a larger problem.

- It recognises that the whole is more than the sum of its parts, and is a good way to understand and manage complex situations.
- It also helps us to identify connections and relationships within a particular system so we can create beneficial outcomes for the whole system.
- It shifts thinking from about ‘things’ to about ‘processes’.
- It integrates decision-making with adaptive management techniques.

For example: The best solution for a busy road might not always be to build another road.

3. Critical Thinking
Critical Thinking challenges us to examine and question the underlying assumptions that affect way we interpret the world. For example, how we are influenced by media and advertising.

- It means not jumping to conclusions, but reflecting on our thoughts.
- It encourages us to look beneath the symptoms to identify the root causes of unsustainable practice.
- It enables us to see that people with different backgrounds might view a specific problem - and any possible solutions - from a completely different perspective.
- It can also stimulate us to examine what is going on in the world - and what we believe about it.

For example: We might question the assumption that all progress towards sustainability must inevitably be costly.

4. Participation
Participation goes beyond consultation, to empowering people by directly involving them in the decision-making process. Engaging people in decision-making creates a greater sense of ownership and commitment, both of which mean they are more likely to take action.

- It puts decision-making and responsibility for outcomes in the hands of participants.
- It builds capacity for self-reliance and self-organisation.

When everyone is actively involved in the challenge, amazing results are achievable. When the best developments are done, the people all say, "We have done it ourselves".
5. Partnerships
Creating partnerships strengthens ownership of a problem and a commitment to sustainability amongst diverse stakeholders.

- It promotes learning how to work together to build a shared vision of the future by combining knowledge, technology and resources.
- It also recognises that one of the best ways to understand different world views is to collaborate with people from different cultures and backgrounds.

For example: Working with other organisations in your supply chain can bring valuable sustainability outcomes for all.

_We could always be doing more, innovating everywhere with pipelines, transport sharing, methane collection ... From Many Publics: Participation, inventiveness and change, State of Victoria._