SOWING SEEDS AND PULLING WEEDS

Alison Lugg, La Trobe University
Outdoor sustainability education in pre-service teacher education...

...’we had long discussions on eating food out of a bin and we spent half the camp talking about that with some of the kids – they loved it. And when we were walking around Gravel Hill community garden it was fun to see the kids ... tasting things, because I love gardening and when you invite people to do things it’s enjoyable to see them involved.’

(Jim, focus group, Sept, 2009)

• Informal, outdoor experience - sensory, serendipitous engagement
• Sharing personal passions
Gardening as pedagogy

‘The garden not only provides the experience that caring and tending require patience and attention, but also that all things obey their own times that one has to respect.’

(Becker 2014, p. 8)

‘... the garden itself does not seem to be altogether innocent. Its material properties quite obviously lend themselves to promoting certain actions and to discouraging others... nature is suddenly split into two... plants are declared as useful or weeds... Weeds are pulled out, if possible with their roots, in order to afford the useful plants free growth and the best possible conditions to develop... ’

(Becker, 2014, p. 7)
SOIL: Sustainability (through) Outdoor Integrated Learning

Sowing seeds

‘Change towards a more sustainable future, very scary. Our house is quite a lively discussion forum ... we are trying to think at the moment about how we can change the world – and it’s scary! And I think ... this SOIL program [will] help us to try some sort of change through a school and the normal school system doesn’t allow for that.’

(Barry, June, 2009)

Pulling weeds...

‘If being green was a cool thing then you’re already starting leaps and bounds ahead.’

(Steve, Sept, 2009)
The Place .... Bendigo

Population 100,000 +
55 schools
3 tertiary campuses

150 km north of Melbourne

10 year drought
Black Saturday fires...
The People ... 

SOIL practicum: Joint project – La Trobe & local school
- Cross-disciplinary
- NO EXPERTS
- No template for participation.
- Team-based structure

Pre-Service Teachers:
- 12 - 4 female, 8 male
- 4th year BPOE/ Grad Dip Ed
- Outdoor Education teaching method
- Limited experience of teaching in schools

Teacher Mentors:
- Humanities/English
- Science/Maths
- New to teaching sustainability
- New to team teaching

Students:
- Year 9 – 6 classes
- No prior outdoor or sustainability education
Research Project...

**Longitudinal case study:**
18 months – surveys, interviews, focus groups & field observations - pre, during and post practicum, post graduation.

**Research Question:**
How did the pre-service teachers’ experiences of this practicum impact their professional development as teachers of:
- outdoor education?
- sustainability education?

Alison Lugg, La Trobe University a.lugg@latrobe.edu.au
Ecosocial Framework (adapted from Brofenbrenner, 1994, Davis et. al., 2008; Lim, 2002; Sterling, 2004)

- Intersecting communities of practice (Wenger, 1998)
- Activity system (CHAT) (Engestrom, 2001)
- 10 year drought Black Saturday fires
- National Action Plan for SE Sustainability on curriculum agenda Climate change policy
- New practicum models Bendigo Education Plan
Sustainability education – early conceptualisations

- outdoor environmental education – local ecology, natural and cultural history, land uses and management practices and minimum impact principles.
- environmental impacts of everyday living practices – energy and water use, waste production, recycling, etc.
- understanding complex issues such as climate change and possible solutions/ ways forward.
- as a process of change in environmental attitudes and behaviours
- as practical involvement in projects/ issues of individual or collective interest – ‘hands on’ learning
- as envisioning a more sustainable future and lifestyle

Gaps: Political, economic or social justice perspectives
Pedagogy ... linking classroom and outdoor learning

‘Steve and I took the approach that each lesson would have a different theme like food miles or world population or greenhouse gases or whatever. Then the camp was to see these things in practice... So they learned about it then they saw it in the field, then in the follow up lesson it all came together – like the one about animal ethics and food choices. A lot of them learned a lot then I think ...’

(Mike, Focus Group, Sept, 2009)
‘Gardening tools’

Relational agency

Common knowledge

Relational expertise -

... facilitate collaborative work across practice boundaries

(Edwards, 2011, 2012)
Relational Agency

‘The offering and accessing of expertise in distributed systems... which is a capacity for working with others to strengthen purposeful responses to complex problems.’

(Anne Edwards, 2009, p. 39)

This involves:

• Joint (collaborative) action to expand the object of activity
• Recognising the motives and interpretations of others
• Recognising the resources they bring to bear
• Aligning one’s own responses to the joint interpretations of the task
• Knowing who to go to for assistance/support
Team Teaching: collaboration and adaptation

‘... with a subject that is quite subjective, you could approach it a hundred different ways... if you’ve got other people contributing you have to negotiate with them... so you have to come together and decide what you want to do.’
(Jim, Focus group, August, 2009)

‘We had a rough idea at the start what we wanted to do but things changed constantly so we were always adjusting ... what we were teaching. And we got ideas from others... so we’d add that in and take things out so it was a constant changing process’.
(Barry, Focus Group, Sept, 2009)

You need to tune in to a different part of yourself because you have to share the way that the class is going and I think it takes time... By the end we could just look at each other and then we knew ok time to change and we’d just very efficiently switch...
(Charlie, Sept 2009)
Differing expertise – shifting roles

‘Another problem we had was the teachers ... In class time they were pretty helpful but on the camp they were a bit of a problem. They were just not helpful or absent!’

(Karen, focus group, Oct 2009)

‘I think when you do something for the first time we wonder whether it will be successful... I started very cautiously... but I certainly felt complete trust in their [pre-service teachers’] ability to do the camp and I felt completely safe. They did a magnificent job.’

(June, Interview, Oct, 2009)
Contradictions...

The emergent and ‘messy’ nature of the SOIL practicum and consequent *uncertainty* acted as *both* an affordance and a *constraint* on student-teacher learning:

‘I do think that the beauty in it was the responsibility you had to take on account of the fact that people who would probably normally take over had to take a step back because they were unsure how it was meant to go anyway....’

(Charlie, Final Interview, 20^{th} Sept, 2010)

‘The fact that this had not been done before and it was a bit “all over the shop”, actually helped us. When we were in it, it felt at times as if it was hindering, but I think we learned more by having to go through that than we would if it was all set out.’

(Eric, Focus Group 1, 2009)
New Perspectives

‘It [SOIL] opened up my horizons a lot and got me to... see lots of these things happening all over the world, and thinking about my place in that [sustainability] movement... and how I can contribute the most to it.’

(Barry, Final interview, 2nd Sept, 2010)
References

Becker, P. (2014). To be in the garden or not to be in the garden—that it’s the question here: some aspects of the educational chances that are inherent in tamed and untamed nature. *Journal of Adventure Education and Outdoor Learning*, DOI: 10.1080/14729679.2014.908514.


