

<p>LWEEP SPP</p>	<p>“Sustainability and our Farmland Environment” at St Joseph’s Primary School S1 2012 <i>The class teacher reviews the impact of the SPP designed to extend her sustainability unit. [1]</i></p>
<p>Overview nature of the program</p>	<ul style="list-style-type: none"> - a one-term 10 weekly 2 ½ hour program for the Senior Class (average of 11 y3-6 children weekly and its teachers- 1 class, 2 aides, 2 CRT’s) at a small rural school, most of whom come from farming families. - to complement the school’s unit on “sustainability and conservation’ and extend it into the local area of need, by the children and teacher, for specialist Science skills and knowledge about their local environment and how sustainability concepts apply to farming. - and to also provide on introductory and 10 weekly in-school PD sessions for the teachers based on the classes.
<p>Purpose</p>  <p>nb photos in [6]</p>	<p>This SPP’s main target was to involve the school in the STS - a DEECD Energising Science and Mathematics priority program- as a major addition to the school’s sustainability and conservation unit. The SPP was developed in conjunction with the school to provide new opportunities for enhanced learning in:</p> <p>Science – through participation in Science experiments, dramas, research and story writing, and</p> <p>Literacy – through environmental stories, new vocabulary, fiction and non-fiction farm books, and writing stories for the STS Creative Writing Picture Story Book competition</p> <p><i>“I certainly could not have done this work myself; I simply did not have the knowledge for it! Jeanie has been thoroughly organized and motivated the students to want to learn. It has been an enormous learning curve for us all!” [1]</i></p>
<p>Learning outcomes</p>   	<p><u>Student programs:</u></p> <p>As a composite class in a small school, this SPP covers learning outcomes from VELS levels 3 and 4. As an environmental education subject about the local environment and sustainably farming in it, the SPP is cross-curricular in nature, and contributed especially to Science, English, Communication, Humanities, Arts and Mathematics domains in VELS [2].</p> <p><u>Teacher programs:</u></p> <p>As the Wimmera has a poor participation rate in the STS, this program provided in-school PD for this demanding, but worthwhile DEECD priority program. Class sessions provided PD for the teachers in the environmental content and new ways to present it. PD meetings provided information about such topics as RSAV and SETS, e5, STS and GLO’s and to facilitate the schools participation in two annual Science programs (Saltwatch and Science Talent Search (STS)) and two national years (the Australian Year of the Farmer (AYF) and National Year of Reading (NYR)). The school already used e5 and chose to not register for RSAV or SETS.</p> <p><i>“I have learnt so much myself from the term’s work,” –was a typical of the staff comment – “This whole term has opened my eyes even more to the science that is all around us in our everyday life.”[1]</i></p>
<p>Learning story</p>      	<p>2012 – the Australian Year of the Farmer (AYF) – the perfect time for a unit on “Sustainability and our Farmland Environment”</p> <p><u>SPP enabled farm experience to be used by farm kids in sustainability education</u></p> <p>Farm children rarely have their farming experience focused on for their education. This SPP deliberately drew on such experience and used it for science and literacy. On a social level, we also wanted to engage the ‘farm boys’ and encourage in all, their appreciation of the farming community as food producers and of the sustainable practices that are already ensuring the farms and community’s survival, which relate to AYF aims.</p> <p><i>“It has also been wonderful for those boys who are reluctant learners as they just want to be home on the farm. This unit of work has greatly motivated them and has definitely brought out the best in them! They have also felt important as they were able to share their knowledge of farming and build on it even further.” [1]</i></p> <p><u>SPP helped grow the understanding of sustainability as it applies to farming</u></p> <p>The SPP classes focused on ‘sustainable farming’ as a key concept. At the start, the children’s drawn pre-test of their knowledge showed a 0% understanding of this concept. The SPP involved them in researching farmers in their family or community to find out what they understood by this concept and how it applied to their stock and crop farming, challenges and caring for nature. This was collated and used as the basis for learning about sustainable farming. [3 see http://www3.sjhopetoun.catholic.edu.au/sts-resources-2012.html/]</p> <p><i>“The newsletter reports [4] were fabulous for keeping the families up to date with what was happening. The families had a lot of input into the sessions, through interviewing and questioning by the children so it was important for them to see how it was all fitting together in the classroom. [1]</i></p> <p>SPP also provided knowledge of the local environment as the background against which issues of farming sustainably arise and of local examples of sustainable farming methods to tackle them. The children’s understanding was applied in the STS Science –based illustrated picture book competition on the theme “Yes we can farm sustainably”. Six books on this theme were created covering stories of managing pests and drought.</p> <p><i>“I wasn’t sure how “Yes, we can farm sustainably” was going to work because I didn’t have any solutions to sustainable farming! It was great to learn what is already happening and other possibilities that could be put in place on farms!” [1]</i></p> <p>How could we check the development of this key concept? The STS books have to have a list of key ideas behind their stories. We required one of these be a definition of ‘sustainably farming’ written by the children –all did. Each story showed the children’s understanding of how a specific farm issue could be sustainably managed. There was a formal assessment at the end of the term - all Y 4-6’s understood the terms, and half the y 3’s. [5]</p>



"Before this work, saltbush to me was an ugly nuisance I now understand how vital it is in preventing soil erosion!" [1]



Self-assessments were done half way through and at the end the SPP unit by colour-cards to check progress in learning. Both used a 5-point rating from 'nothing new' (white card) to 'all of it was new' (red card). The midway the question was "How much do you think you now know about sustainable farming?" and at the end, it was "How much have you learned about Sustainability and our farmland environment?". The photo records of these self- assessments show that there was definite progress – from none knowing about sustainability in farming at the start, to some at half-way and all at the end of the term rating themselves as knowing 'a fair bit' or 'a lot' new about this topic.[5, 6]



"I also really liked the [self-assessment] cards as a way of evaluating what the students have learnt and will use this in my teaching (standing behind the card that shows your level of learning)." [1]



SPP provided the knowledge of the local environment.

The SPP sessions included knowledge of the local environment as the background for sustainably managing the mainly sandy farmland with its key potential problems of salinity and erosion. There were salinity experiments with results sent back home, shared in the local paper [7] and on the Saltwatch website [8]. To prepare for the STS, some Science was communicated in dramas and stories, an idea which was a surprise to many.



"Looking for the science that was in picture story books was an eye-opener for students; I don't think they had really thought about how much science was in picture story books before." [1]



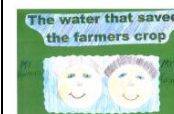
Knowing the origins of the land farmed is critical to being able to farm sustainably. This area's story was first created in the sand pit, during which it was photographed. The photos were made into a timeline at the next session and into a Science book at the one after. Questions, a glossary, index and references, were added to complete this Science genre [3].

The story of the formation of the land and the lunettes was very impressive and will stay with me! [1]



Armed then with environmental knowledge and a Science book making procedure, children began making their own Science –based sustainable farming books for the STS. As the six STS Stories evolved through their planning, SPP lessons were tailored to support them with information, detailed visuals to aid illustrations, and skills for book writing. An example was a lesson on macro-invertebrates and their roles in plant life, followed by homework to record in drawings the 'little life' in their home/farm environments, which were shared in class.

Many positive comments were received about what the students were doing, not just from the parents of students undertaking the work but from parents whose children were in the other classroom also; they were very interested in the work!" [1]



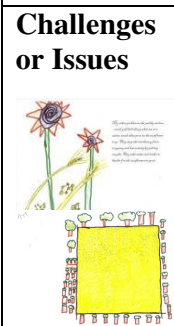
It was an amazing term – we all learnt many things, and learnt from each other as a school community.

"IG was most annoyed with herself that she hadn't spoken to BM & DR about their story BEFORE they had done the evaluation with you. She said that she had put 'yes' to the question about the bats eating the crops, but after listening to their story realised she had got that question wrong!" [1]



Had participating in the STS Creative Writing Competition on a difficult Sustainable Farming theme been appropriate for these mid-upper Primary children? When asked about enjoyment of the SPP activities, 90% of the class rated the STS books highest [5], e.g. from a y4 farm boy, who usually would rather not be in school:

"I loved making the book. I thought it was awesome." (FG) [1- children's thankyou card comments]



Challenges or Issues

1 Suitable reference materials for a 'sustainably farming' theme – Small rural libraries, at schools or as a visiting bus, do not have the depth of non-fiction resources and no suitable web resources were found. Solution – I went to the two nearest public libraries, 75 km and 150 km away, to be able to source the kind of junior non-fiction books that would be useful. The library supported me with an extended loan on my card for the purpose of supporting a school within their catchment.

2 Emotional sustainability in a farming community – Some children chose to make their stories about drought. It was clear from their drafts, that they were experiencing the dread that can come with such events, heightened by the weather at the time with its clear signs of the start of a new drought. Depression is a hidden problem in farming communities. Solution - I added a specific lesson on new sustainable alternatives to managing droughts made possible by the Pipeline. Thankfully this more positive management was reflected in their final stories.



Supporting evidence

- [1] 2012 teacher qn replies.doc
- [2] Aims for St Jos SPP checked.doc
- [3] STJPS webpage for STS resources <http://www3.sjhopetoun.catholic.edu.au/sts-resources-2012.html/> There are several pdfs here. The first 6 report an sustainability interview question. The current last one landhistory.pdf is the powerpoint of story of the land from the sandpit.
- [4] SPP in STJPS newsletters.doc
- [5] SPP evaluation.doc
- [6] SJPS SPP sust farm photos.zip .
- [7]draft news release for the Hopetoun Courier.doc or scan a copy of the printed version.
- [8] Saltwatch webpage of 2012 results <http://www.vic.waterwatch.org.au/monitoring-and-data/1010/>.

all photos are in doc [6]