Cultivating Community

*Edible Classrooms* School Garden
Programs response to the Parliament of Victoria’s Parliamentary Inquiry into:

‘The potential for developing opportunities for schools to become a focus for promoting healthy community living’

31\(^{st}\) July 2009

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Executive Summary

- Edible classroom exists on three levels. We deliver health promotion programs through individual Garden Educators working at schools; consultancy, support and advice to schools and wider community; and through delivery of professional development courses and education.
- Our Edible Classroom Programs are successful in promoting health through students being actively involved in healthy eating, growing their own food, physical activity, environmental education.
- Our programs are integrated and provide multi-disciplinary experiential holistic learning
- Our projects’ delivery are flexible and cater to school’s broader objectives of promoting healthy eating and well being
- Our organisation is actively involved in promoting community health in the wider community.
- There are many diverse school garden models throughout Australia which struggle to find any financial support to initiate or maintain ongoing projects
- Local Council networks can partner with school clusters to develop school garden projects and sharing of resources
- Equitable Government funds should be allocated for all schools across the board to implement their own projects
- Our Edible Classroom Programs would benefit from funding which subsidises current school garden programs as well as schools needing seeding financial support
- The social health benefits of integrated school garden projects have long lasting and far reaching benefits for students and families
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The potential for developing opportunities for schools to become a focus for promoting healthy community living.

Introduction

Cultivating Community is a not-for-profit organisation that has grown out of support for community garden projects in inner-city public housing estates. It has evolved into an organisation that promotes and supports the development of community garden projects across the entire community. Cultivating community consists of a management committee, paid workers and volunteers.

Our Edible Classrooms initiative grew out of Cultivating Community’s direct involvement in developing school garden programs since 2000, including the iconic Collingwood College school garden (which is now part of the Stephanie Alexander.Kitchen Garden Foundation). Initially we had one Garden Educator and have now grown to employ a small, team of six people. Currently we are partnered with 13 schools, from Primary to Secondary, Special Development Schools, Private and State (refer to Appendices). We provide a flexible approach to addressing healthy eating and living through hands-on gardening and cooking whilst encouraging and engaging whole school community input into the program.

Q1. Specific health promotion programs

1.1 What health promotion programs (if any) has your organisation run for schools (or a school)

Cultivating Community’s Edible Classroom Program assists schools to develop their own Edible Classroom and curriculum integrated program.

Garden Educators

Our Garden Educators work on an ongoing, weekly basis with students and teachers in an outdoor garden setting. The Edible Classroom Program, is not a rigid schedule of weekly tasks and objectives. Rather, each Garden Educator works in an environment unique to each school. Each school’s garden is at a different stage or capacity. Each school has different ways of rotating classes through the specialist program. In short, we cater to the schools objectives and provide a flexible way for schools to integrate outdoor learning opportunities to apply classroom curriculum.
We specialise in teaching in a garden setting and have students of all ages actively involved in a range of all types of garden related jobs such as planting, digging, raking, potting up, taking care of chooks, designing garden beds, making paths, building garden beds to investigations, inquiry driven projects and discussion as well as plain old fun outdoor activities. We also engage children in harvesting, preparing and eating the food they have grown; encouraging them to try new things, promoting foods from different cultures.

Each term our educators come together to share skills, curriculum ideas and support for each other. Volunteers and specialists are also invited to participate on these days. Our Edible Classroom educators also have access to PD opportunities to enhance their teaching.

Holistic Education Programs

An outdoor Edible Classroom is a natural setting which invites a multitude of learning opportunities for engaging students in inter-disciplinary education and themes. It involves literacy and language, maths, science, physical activity, the arts and cultural/historical studies in meaningful activities. Learning exists on many developmental levels including skills that encourage team work and problem solving.

The Edible Classroom takes a holistic approach to involving students in growing food at school, creating habitat through natural landscapes, providing learnscapes, enhancing often neglected school yards.

Students get the opportunity to learn and work with nature- while having great fun!
Beth Crupi, Prep/1 teacher, Thornbury Primary School

Support and Advice

Cultivating Community has an Edible Classroom consultancy service to provide schools with affordable and practical assistance in designing, building, planting and maintaining food and school gardens. We also assist schools to reap the social, educational and nutritious benefits of an edible classroom. We recognize the value of providing an outdoor learning space to engage students in earth based education and education for a sustainable world.

We understand the financial and time constraints schools and their staff experience and aim to enhance a school’s grounds within budget and resources available. We find the best approach to working with schools is to work along side staff and parents to appreciate where they wish to take their Sustainable Education path. Partnerships with schools are encouraged to take up our input to their regular curriculum on a long term basis. This provides continuity and flow on a seasonal basis.
Volunteers

Volunteers are vital to enriching the students learning experience within the classes through helping to facilitate small group activities and through their input of ideas and knowledge.

Edible Classroom projects’ provide opportunities for many active volunteers to engage with kids in our school garden projects. We have volunteers from all walks of life including retirees, chefs who have spare time, University students, part time workers and parents. We also have University student placements from time to time using our projects in their research and studies.

1.2 What health promotion programs (if any) has your organisation run for the wider community?

Plenty Valley Community Health (PVCH)

Cultivating Community (CC) have partnered with Plenty Valley Community Health to deliver part of their extensive health promotion program which works closely with a number of schools and the wider community through community kitchens and cooking programs. Cultivating Community consulted extensively with PVCH to implement food focused school gardens in 3 primary schools and one secondary school. This program has been running since second term 2009 and runs for 12 months facilitated by an Edible Classrooms educator. (See project description email attachment).

Banyule Community Health Project

In 2008 an Edible Classroom contractor engaged with Banyule Community Health Service (BCH) to work with The Pavilion School on a garden based project with a group of marginalised youth. The project was conceived by BCH and welcomed by the Pavilion as a real life, practical hands on activity that would connect adolescent youth with the wider community, break down perceived barriers to accessing basic health services and acknowledge local indigenous community by enhancing the health centre with a native garden. The project achieved educational outcomes that saw two participants obtain a unit of competency in the Horticulture I Certificate.

Professional Development Courses

We work in partnership with the Royal Botanical Gardens Melbourne and Cranbourne to deliver the ‘Growing School Community Gardens – Gardens for Learning and Play’ course.
The course is designed to provide resources that help deliver curriculum support, provide practical skills and inspire landscapes that provide meaning and connection for an integrated school community garden. Each session is about engaging in a fun, transformative learning environment with hands on activities at various school garden sites, as well as amongst the inspiring gardens of both Royal Botanic Gardens, Melbourne and Cranbourne.

This course had the maximum number of participants (30) booked from teachers, parents, landscape architects and horticulturalists, with the same number on a waiting list. As an organisation active in the field, we have seen the need arise to provide more opportunities for those engaged in sustaining these kinds of projects.

Conferences

Cultivating Community has sought inspiration and provided support for many other school gardens not only nationally but throughout the world. Our Edible Classrooms team have voluntarily organised professional development opportunities including the first School Garden Conference in Australia, the ‘Edible Classrooms Conference’ in 2005. As organisers we expected 50 or so people to turn up. Instead, 250 people registered and participated on the day! This is very indicative of the swell in interest and need to share information and expertise in this field. Consequently Cultivating Community are seen as leaders in the field of school gardening in Australia.

Since 2003 we have been involved with and joint organisers of the National Community Gardens and City Farms Network Conference (CGCFN) which hold conferences around the country. The Edible Classroom Team coordinated the ‘Schools Day’ of a four day Conference – ‘Cities Feeding People’ CGCFN Conference held in Melbourne, 2007. This conference over four days attracted nearly 800 national and international participants and presenters.

We are actively networked with school garden projects and educators around Australia including Northey Street’s Growing Communities school garden initiative; St Kilda’s Eco Centre; ‘The Living Classroom’ in Woollongong; Black Forest Primary School, South Australia; Perth City Farm, Western Australia, (Refer Appendix 4).

Edible Classroom Team educators frequently present in courses and conferences from VAEE (Victorian Association of Environmental Education), Greening Australia’s Toolbox for Change Forum, Melbourne Universities’ ‘Kitchen Gardens in Schools’ short course and the Horticultural Therapy and Community Gardens course. We have also partnered with local council in
organising forums which address local issues around food security in which our school garden programs have featured.

1.3 How successful have these programs been? How has their success been measured?

Gardens and garden based activities are increasingly becoming recognised as vehicles for strengthening school communities and promoting healthy eating and exercise. There is a growing body of international and Australian based evidence that edible school gardens can break down cultural barriers, provide therapeutic benefits to students with learning and behavioral difficulties and assist to address obesity, nutrition and active learning. A recent Griffith University study found that the introduction of a school-based food garden was associated with knowledge and attitudinal changes conducive to enhancing vegetable and fruit consumption\(^1\). There are positive initial findings in the evaluation study on the Stephanie Alexander Kitchen Garden by the University of Melbourne\(^2\).

Food is the "glue" of so many communities around the world, so why not school communities? Since we have developed a school garden, our school community has also: started trading vegetables after school, run a series of hugely successful twilight markets, run a weekly soup kitchen over winter (especially targetting disadvantaged kids at the school), held autumn harvest festivals for kids and parents, doubled our participation in Fruit and Veg week, held winter solstice festivals in the garden, got a grant for chooks, taken the school's water-saving capacity from zero to over 40,000 litres, done a series of amazing garden art projects, run a two-week-long farming lesson for a class of grade threes, and many many other wonderful things. Absolutely none of these fantastic activities would've got off the ground without the garden as the focal point and inspiration. Students have been centrally involved in planning and implementing all these activities. And so have parents. It has been four years of crunchy joy and delicious community building!

Les Tate, parent, Thornbury Primary School

Our own experience is that feedback from staff reflects positive outcomes for students who are usually difficult to engage in the classroom. Staff notice instant engagement and interest when they are working in the outdoor setting. Students are enthusiastic when they are working outdoors and don't seem to want their garden sessions to end! Cooking sessions are one of the most popular group tasks as everyone wants to eat. Eating the prepared foods or tasting experiences each week are relished, with seconds and third helpings requested.

\(^1\) Somerset, Shawn Mark and Markwell, Katherine Elizabeth 2007 : Impact of a school-based food garden on attitudes towards and identification skills for vegetables and fruit: a 12-month intervention trial., Health Faculty, Griffith University, Paper presented at Sixth Annual Conference of the International Society of Behavioural Nutrition and Physical Activity, Oslo

Our Edible Classrooms programs are tailor-made to meet the requirements and resources of each school. There are however consistent themes relating to the benefits of our Edible Classrooms programs as expressed by staff, students and the broader school community.

The social health benefits have long lasting and far reaching benefits. For example, a number of our garden projects have provided a comfortable platform for learning about and wider acceptance of multicultural practices around food and lifestyles. For example, through harvest festival celebrations and links with local community gardens, the diverse community immediate to schools are able to share their cultural heritage and knowledge.

Gardening is a non-competitive environment where everyone achieves, no matter what task is at hand. Working alongside peers provides a sense of team work and community spirit. Garden working bees are a time when strengthening of that community spirit has enabled people from all walks of life to contribute to their school site and create a sense of pride in a job done together. The social cohesion and inclusiveness has rippled through school communities and the garden becomes a social hub for sharing fresh, seasonal food, sharing seeds, growing things together, creating art together.

We engage with students from multicultural backgrounds; cook complimentary cultural foods; invite parents to help out with classes, share their knowledge of growing foods, cooking foods, making and doing things in the outdoor environment.

"Schools can not achieve a vibrant and healthy learning environment for their students without support and input from the families and wider community surrounding and visa versa families and communities cannot be healthy and vibrant without their young people receiving a quality and holistic education... The edible class room program provides the perfect opportunity for kids and their communities to come together and actively learn about growing and eating healthy food and then take these learnings home."... "It is really rewarding to be a part of such a life bringing program"

Lizzie Bickmore, Moreland Community Health

Neighbours are very important to keep happy in the local school environment. We have developed strong and mutually beneficial relationships with neighbours, especially over holidays. The neighbours look after gardens and grounds and benefit from the bounty that can be had from a productive garden.

To thrive school garden programs need sufficient resources and expertise to develop and maintain them. Too often schools establish a garden only to have it fall in to disrepair when a key teacher or parent leaves the school. Edible Classrooms have been successful in assisting school develop sustainable garden programs, taking the pressure off teaching staff by providing the
expertise to manage, develop and deliver garden-based lessons linked to school curriculum.

We have organised Father Circles amongst our school parents and this encourages deep respect amongst the children who are aware of this happening at their school. The value of this kind of ‘health’ is very difficult to measure in terms of self esteem, respect for elders and wider community members, creating better family relationships and friendships.

1.4 Are you aware of any other especially successful health promotion programs for schools or communities, from Australia or overseas?

The Garden Organic for Schools Project- UK

This is a nationwide campaign working with 5,500 schools in the UK which helps children grow vegetables at school, and learn more about their food. By setting up small gardens in or near the school grounds, children can learn about how food is produced and its link with the countryside. It also helps teach them how to enjoy eating a wide range of vegetables as part of a healthy diet.

The School Grounds Development Project - UK

The S.G.D.P. has been working with schools in County Durham and the North East region of the UK since 1996. It is now part of the Esh Winning Eco-Learning Centre (EWE Centre ). The project aims to raise achievement by involving the whole school community in improving their school grounds for education and play.

The Learning Garden – Venice High School California- USA

The Learning Garden was launched in March of 2001. Since then it has quickly become one of the USA’s largest and most successful school gardens. The Learning Garden is a model example of how school gardens can transform the lives of students and teachers and the environment of their community.

Edible Schoolyard - Martin Luther King, Jr. Middle School in Berkeley, USA

The Edible Schoolyard, a program of the Chez Panisse Foundation, is a one-acre organic garden and kitchen classroom for urban public school students attending the Martin Luther King Jr Middle School. Students participate in all aspects of growing, harvesting, and preparing nutritious, seasonal produce.
Classroom teachers and Edible Schoolyard educators integrate food systems concepts into the core curriculum. Students’ hands-on experience in the kitchen and garden fosters a deeper appreciation of how the natural world sustains us and promotes the environmental and social well being of the school community.

In Australia, the Stephanie Alexander Kitchen Garden is a high profile model of a successful school kitchen program.

Throughout Australia, there are so many other successful integrated school garden programs that promote healthy community living and demonstrate the numerous models that exist. Some schools to note include Bentleigh East PS, Blackforest Primary School (SA), Fitzroy Primary School, Fitzroy High School, Pavilion School, Olympic Park Village PS, The Patch PS, Cringila Public School (NSW), Kings Park Primary School, Croxton Special School, Broadmeadows Special Development School. Many of these schools independently create their individual programs and rely on generating their own funds to support their work. Through our contact with many schools in Australia, feedback from them has suggested that trying to take on the only funding available for these kinds of programs via the Stephanie Alexander Kitchen Garden Foundation was unsuitable for their school or unobtainable. They indicate that the strict criteria set out does not allow for ownership of the program and flexible enough for their unique circumstances, thus ruling out any eligibility for funding.

Edible Classrooms achieves the same outcomes as the SAKGF model yet differs in its approach in a number of ways:

- Edible Classrooms is totally flexible to meet the needs of individual schools
- We have no pre-defined program- rather we integrate activities with the school curriculum
- We have high regard for delivering sustainable, environmental education
- Our focus is on the garden as a place for experiential learning and social cohesion
- We focus as much on the development phase of the garden as a vehicle for learning as we do on the resulting gardening and cooking activities
- Cooking and eating food is seen as an important aspect of Edible Classrooms but does not have to be the focus of any program
- Our cooking activities do not require a fully equipped kitchen
- We promote permaculture principles in garden design and growing food
- Edible Classrooms programs are much cheaper to establish and run
- We value the role of the garden as a valid place for learning through nature play
We can measure the success of our garden program at Croydon West Primary School by observing the positive and thoughtful way our students' interact with their environment. Many have shown interest beyond our school gardens and readily talk about how proud they are of what they have achieved at school and at their homes. Our involvement with Edible Classrooms has reinforced and developed the concept of providing practical and authentic learning opportunities for our children who are connecting well with their environment while learning about a healthy, sustainable lifestyle. Through this type of learning, we feel that our students have confidence to make great choices about their futures and the health of our planet.

_Ruth Bode, Teacher, Croydon West Primary School_

**Q 2. The role of schools in promoting healthy community living**

2.1 We strongly believe schools should have a role in promoting healthy living in the wider community

*And the school garden is an ideal vehicle for this.*

**Forging/ Strengthening Community Links**

Our Edible Classrooms programs are intrinsically linked to school community. Our Garden Educators forge partnerships between the school with local businesses, energising parents to be interested in their child's future to grow food and plants. We see our role as helping the wider community see the benefits of providing their kids with practical skills that can be applied in their own home and shared amongst extended family members.

Most schools (perhaps some inner urban schools are an exception to this) have lots of neglected excess land that is either cordoned off as out of bounds, is neglected or requires endless energy inputs to maintain it for aesthetic value. Much of this excess land could be put to productive use in that land could be prepared for food growing, furbished with infrastructure that enables people to gather together and cook and eat together as well as other community activities.

We believe very strongly that schools have a vital and can play a pivotal role in enlivening, strengthening and being a leader in promoting healthy living amongst their community. Schools are a ready made hub consisting of students, parents, grandparents and siblings, staff and their families and networks. There is this potential of hundreds of people coming together every day, of every week.

**Promoting healthy living and eating**

We see our role strongly as providing healthy options for people who would not normally associate health with growing things in the ground. We feel we
are turning the tide for our future kids who will graduate from schools with real
life practical, healthy skills that are transferable and can be applied to any
community, home or region where ever they go in the wider world.

Using gardening and outdoor education not only provide information about
fresh foods, but also incorporates looking at why eating seasonally is best for
you, and cheapest; can incorporate sustainable living principles that can be
transferred to home environments. We believe that positive healthy eating
experiences tackle issues relating to obesity through imbibing and
appreciating fresh unprocessed foods.

Installing and using water tanks, composting, recycling and other
environmentally sustainable measures and technologies enable schools to
integrate this into their daily life and school culture. School communities are
seen as positive role models for broader community education and reflect a
societal movement which is responding pro-actively to our current socio-
economic-environmental climate. The school garden plays an important role
in integrating many of these practises, offering hope on an immediately felt
level.

Schools have an important role to play in promoting health as they naturally
generate an immediate community of hundreds of parents and carers,
extended family and friends. Every day parents drop off their kids and so there
is ample opportunity to engage with this community of adults through small
groups, through sharing a common passion of caring for chooks, garden
areas, planting, sharing food, cooking food, skill sharing etc.

Schools often have lots of neglected space on their sites and these could be
turned in food growing or animal rearing areas, mini farms that could provide
plentiful fresh food to the local community.

We measure the success of our program in a variety of ways - the motivation of the children
to attend the program their enthusiastic involvement, their excitement when they discover
they can actually grow beans and they don’t just come from the freezer in the supermarket.

Kathleen Noonan, Principal, Thornbury Primary School

Promoting multiculturalism and Inclusion

Schools gardens are natural places for sharing skills passed on from elders to
young people – more place-based education should occur where by students
are learning about life from their immediate community peers and elders. The
skill and knowledge held right under our noses can be immense and valuable
and schools tend to look further a field for so called expertise.

We should be looking to our local environment for lessons in the environment,
for connecting with people, making partnerships, learning local history.
Strengthening the social fabric of a school community creates healthy respect for each other and that is then reflected in the wider community. We do this by employing Koori Educators and telling stories.

2.2 Models and Mechanisms schools can use to integrate the school garden into the curriculum.

The major issue faced by schools is finding the extra budget to cover the costs of a school garden program. There is much interest in the Edible Classrooms approach as evidenced by feedback and enquiries we receive, our reception at conferences such as the Greening Australia’s annual, Toolbox for Change Forum and workshops run through local councils.

In addition many schools in poorer areas have been excluded from applying to the Stephanie Alexander Kitchen Garden Foundation because they cannot raise the required $60,000 school contribution.

Even if a school has the budget to employ a garden educator, they often struggle to attain or allocate ongoing funds to maintain the garden program. Or the situation is vice versa, they allocate a budget and get a garden infrastructure up at their site, then the project starts to fail as teachers lose interest or momentum in maintaining the garden. The project fails to see its full potential and school community may look unfavourably on funding this type of project in the future as it didn’t get the ‘legs’ the first time around.

To address some of these issues we recommend that:

- Government endorses and supports the diversity of models in which schools can integrate school garden programs into their curriculum.
- Equitable funds are made accessible for all schools across the board to implement their own projects
- Funding to support the ongoing delivery of programs, such as funding to employ a kitchen garden educator, be made accessible to schools
- Edible Classroom programs receive funding to subsidise current school garden programs as well as schools needing seeding financial support
- The Edible Classroom program receives funding to manage, administer and offer consultancy to schools
- School support through financial assistance can be used to give effective teacher time release in order to follow up contacts, establish networks and work more closely with parents of students
- Local Council policy reflect community concern around food security and health issues and allocate local areas to engage in peri-urban agriculture, including school grounds
2.3 Health, education and other organisations can work more effectively to co-ordinate health promotion activities between communities and schools

- Local Council and clusters of councils can use existing networks to promote the benefits and models of school garden programs within their area
- Local Council networks can assist schools in developing their school garden projects, sharing skills and resources within school clusters.
- School garden educators and other staff can liaise with Local Council, Community Health Services and targeted Youth Programs to promote healthy community living, capitalising on the role of schools as a community hub
- Schools are a natural place for sharing skills passed on from elders to young people. ‘Place-based education’ can occur where by students learn about life and culture from their immediate community peers and elders
- Validating and acknowledging local expertise is a necessary first step and needs to be embraced by Government and education institutions

Five year 8 students are standing on top of a trailer full of cow manure shovelling it out into a pile on the grass. Student A says, ‘Miss, can we do this for next session as well?’ Confused the teacher replies ‘... Hmm it wasn’t really the plan...do you like doing this?’ The boy’s trousers are rolled up as he shovels, a girl directs him where to put his piles of manure, another student is breaking it up with a pitch fork. Student A answers ‘This is the best lesson I’ve ever had!’

Edible Classrooms makes learning real. It creates real learning experiences students can touch, feel, taste and of course smell. The student looking out the window is now focused and leading a group planning out a garden bed or marking out where to dig a giant hole for a fruit tree. Gardens in schools are not just about growing food to eat. Edible Classrooms link students’ prior knowledge with new ideas and then connects them to the bigger picture of habitat, sustainable living and waste management. Further to this, links are formed between generations. A student brings in his grandfather’s cucumber seeds; another talks to their mother about why she stopped gardening and many teachers bring a wealth of knowledge from their own home gardening experiences– sharing a personal passion with their students.

The Garden Educators from Cultivating Community connect ideas and people through real experiences. With 80% of students under benchmarks for Literacy, being tactile and kinaesthetic learners, this can only be a positive experience, personally and academically for students, families, the wider community and staff (Professor Rita Dunn, St John’s University, New York).

‘Now...where’s that shovel and what are we gonna do with the rest of that poo?’

Rebecca Tucker, Head of English and Literacy, Craigiburn Secondary College
To whom it may concern,

The Pavilion is an educational setting for young people within the Northern Metropolitan Region who are disengaged from education and/or training. While all Pavilion students are enrolled at Banksia – La Trobe Secondary College, they attend the Pavilion, which is located off site in a community setting in West Heidelberg. The school is designed as a transition and/or re-integration centre for up to 60 young people between the ages of 14 -20 who wish to access educational support that is tailored to meet individual needs. There is a small staff team at the Pavilion that consists of social workers and teachers and classes contain no more than 12 students.

The Pavilion provides a holistic approach to each young person’s needs, offering an intensive literacy and numeracy programme. As well as this, Social Work Support is provided to each student that includes counselling, advice and referral and educational pathways support. The Pavilion staff provides an alternative and flexible form of education that maintains a strict adherence to both the Victorian Essential Learning Strands as well as the Victorian Certificate of Applied Learning.

In 2008, the Pavilion undertook a partnership with Cultivating Community’s Edible Classroom Programme (CCECP). The partnership was for the duration of a semester and provided the school population and the wider community with both short term and longer term benefits that continue to impact positively on some of the most marginalised people within our society.

CCECP oversaw the creation of a community garden at the Banyule Community Health Centre (BCHC) in West Heidelberg. CCECP motivated the students at the Pavilion to participate in all aspects of design, planning and labour to create an Indigenous Garden that would welcome Indigenous Australians to the health centre. CCECP worked professionally and thoughtfully to motivate young people to take pride in their community and to work for the good of the community.

The BCHC Garden Project was, and continues to be an incredibly successful programme. The Garden, that CCECP oversaw, connected BCHC with adolescents in the area who were not accessing necessary and vital health and social support services. Conversely, the young people within the Pavilion School are now connected with a range of primary health services and legal, housing, social, and psychological support services. Further to this, a larger number of Indigenous Australians are now accessing the BCHC as a direct result of the Indigenous garden and Aboriginal flag that has been ceremoniously placed in the heart of the garden. In short, there are many measurable and many unmeasurable positives about CCECP’s involvement in West Heidelberg and with their work at the Pavilion School.
From a school’s perspective, CCECP proved to be an incredible partner who worked collaboratively with young people and the wider community, to connect people and engender pride within the community while undertaking a meaningful environmental project.

I am proud to state that we worked closely with CCECP and I am equally proud to write this recommendation for CCECP.

Yours sincerely,

Brendan Murray
Coordinator
The Pavilion
Banksia-La Trobe Secondary College
To whom it may concern,

As a representative of both the Thornbury Primary School’s Environment Committee and also a member of Thornbury Primary School’s, School Council, I would like to endorse the involvement that Cultivating Community’s Edible Classroom Program have at Thornbury Primary School.

With their involvement it has promoted the development of the children learning the benefits of healthy eating, healthy living and community involvement. It has bought a sense of real life purpose in the education of propagating, growing, maintaining and the importance of an edible garden. The children and parents have taken ownership of what our garden represents. It has enhanced a community with both children and parents taking an active part in the edible garden’s evolvement. With the guidance of the staff and the Garden Educator, there has been a clear and positive change to the children’s attitude towards healthy eating, active engagement in a sustainable community and the enhancement of the whole school’s yard.

I have the highest admiration for Cultivating Community and its’ Edible Classroom initiative at Thornbury Primary School.

Yours sincerely,

Brian Luxford
APPENDIX 3

Public Programs
Royal Botanic Gardens Melbourne
Private Bag 2000
Birdwood Avenue
South Yarra 3141 VIC

27th July 2009

To Whom it May Concern

I would like to support the Edible Classroom Team at Cultivating Community in their submission to the Parliament of Victoria for the inquiry into:

The Potential for Developing Opportunities for Schools to become a Focus for Promoting Healthy Community Living.

The Education Team at the Royal Botanic Gardens (Melbourne and Cranbourne) have worked with the Edible Classroom Team for two years as partners on the short course Growing School Community Gardens which aims to support learning communities in the creation of sustainable gardens for learning and play. This course focuses on educating for community health and well-being and was highly successful in its inaugural year, due largely to the commitment and professional integrity of the Edible Classroom team.

I have attended workshops and conferences facilitated by Cultivating Community which are also of an excellent calibre and focus on empowering community through the active participation in growing and sharing food for healthy living but also in implementing strategies that connect and engage communities such as food markets and Arts events.

Cultivating Community apply the philosophy that healthy communities not only grow and share healthy food, but need to be able to use spaces that facilitate social cohesion and the opportunities for people to be engaged physically, mentally, socially and emotionally.

I know of no other group who achieve the same level of integrity in this field of work in Victoria and I wish them the very best in their outstanding endeavours.

Yours Sincerely

Christine Joy
Education Coordinator
Royal Botanic Gardens Melbourne
Tel: 03 9252 2454
APPENDIX 4

PERTH CITY FARM – School Garden Review

By Clayton Chipper

OVERVIEW

School kitchen gardens are fruit and vegetable gardens established on school grounds that provide an outdoor learning environment where educators can incorporate hands-on activities in a diversity of interdisciplinary, standards-based lessons. Garden-based learning engages students through dynamic ‘living classrooms’ where they can observe, discover, experiment, nurture, reflect, and learn; allowing students to become active participants in their learning process (California School Garden Network 2006). The core uses for school kitchen gardens encompass a wide variety of learning areas including academic achievement, personal development (mental and physical), social and moral development, health promoting life skills, community development, food security, environmental stewardship, sustainable development, and vocational education (Desmond et al. 2004).

Perth City Farm would like to partner with the Department of Education in order to provide a teacher-friendly website that enables the creation of comprehensive lesson plans utilising a garden-based learning syllabus and demonstrating clear links to middle childhood learning areas of Health and Physical Activity, Science, and Maths standards, with searchable options of thematic and project-based approaches.

LOCAL FOOD SYSTEMS AS A SYLLABUS CONTEXT

In the article, Use of School Gardens in Academic Instruction, Graham et al. (2004) suggests that the incorporation of school gardens into the school curriculum provides an excellent avenue in which to utilise local food systems as a context for integrated project-based learning. Making the shift from teaching single subjects to a thematic approach, helps students see relationships between learning areas and find meaning in what they are learning (Center for Ecoliteracy 2006). Using a systems approach to teaching local food systems as a theme, students might learn about the carbon cycle through classroom lessons connected to the activity of managing a compost pile of lunch scraps. Lessons in nutrition might become part of a science curriculum that is integrated with lessons in the school garden, and the practice of harvesting and preparing a healthy lunch.

SUPPORTING RESEARCH

In September 2006, Perth City Farm in collaboration with Charles Sturt University undertook an international school kitchen garden literature review, and developed an internet-based survey that was sent to 160 Perth metropolitan primary schools (61% response) with an aim to establish baseline data relating to school food gardens, school kitchens, and healthy eating in children (Chipper 2006). The Perth survey showed that many teachers perceived potential health benefits resulting from school food gardens, and teachers who used school gardens taught a wide variety of curriculum.
Despite the apparent health and academic benefits, our Perth survey found that 75% of WA primary schools did not have food gardens. This is a significantly lower rate than found by researchers who surveyed over 4000 schools in California, establishing that around 57% of schools had vegetable gardens (Graham et al. 2005). They found that the most frequent reason for having a school garden was for enhancement of academic instruction (89%). It was also found that many elementary schools (K-8) frequently used school food gardens as an educational resource to teach science (86%), environmental studies (64%), and nutrition (63%), language (62%), and maths (58%).

Many international garden-based learning programs have shown that student’s academic achievement in specific learning areas can be improved by using school food gardens as a teaching resource, they include:

**GARDEN-BASED SCIENCE**
- Smith and Motsenbocker (2005) demonstrated in *Impact of Hands-on Science through School Gardening in Louisiana Public Elementary Schools* that once weekly use of gardening activities and hands-on classroom activities help improve science achievement test scores.
- Klemmer et al. (2005) showed in *Growing Minds: The Effect of a School Gardening Program on the Science Achievement of Elementary Students* that the garden curriculum was more effective as a teaching method in raising elementary science achievement scores compared to traditional classroom-based methods alone.
- *Closing the Achievement Gap: Using the Environment as an Integrating Context for Learning* (EIC) (Lieberman and Hoody 1998) report found that EIC students outperformed their peers in traditional programs in three comparative studies. Below is a list of the percentage of teachers that reported specific outcomes from an EIC approach to science:
  - **Increased knowledge and understanding of science concepts, processes and principles (99%)** – The hands-on approaches typical of EIC enable students of all ability levels to improve their performance and gain a better understanding and appreciation for science.
  - **Better ability to apply science to real-world situations (99%)** – Involvement in real-world, project-based activities seems to help students refine their abilities in scientific observation, data collection, analysis, and formulating conclusions
  - **Greater enthusiasm and interest in learning science (98%)** – Engagement in learning about their community and natural surroundings builds students’ interest and dedication to studying science

**GARDEN-BASED MATHS**
- Stoddart et al. (1999) in *Language Acquisition Through Science Inquiry* found that students in the LASERS program (Language Acquisition in Science Education for Rural Schools) showed faster learning rates in maths, language and science when compared to students who had not been taught using hands-on garden-based lessons.
- *Closing the Achievement Gap: Using the Environment as an Integrating Context for Learning* (EIC) (Lieberman and Hoody 1998) report found that EIC students outperformed their peers in traditional programs in five comparative studies. Below is a list of the percentage of teachers that reported specific outcomes from
an EIC approach to maths:

- **Improved understanding of mathematical concepts and content (73%)** – the hands-on experiences and problem-solving activities fostered in EIC, offer students concrete learning opportunities and help them to more fully understand abstract mathematical ideas.
- **Better mastery of math skills (92%)** – First-hand experiences in applying math to authentic problems help EIC students understand these skills more thoroughly than their traditional peers.
- **More enthusiasm for studying math (89%)** – As they apply their emerging skills to problems that are relevant to them, students become more motivated and enthusiastic about math and begin to understand its value in everyday life.

### GARDEN-BASED HEALTH


Specific examples of successful international health programs featuring school food gardens include:

- **Children are "growing healthy" in South Carolina** (Cason 1999) – **Knowledge Improvement** - Before: 48% of students could not correctly identify selected fruit used in the survey; 57% could not identify vegetables. After the kitchen-garden program: 94% of students could correctly identify fruits, and 86% could identify vegetables. There was a 69% increase in willingness to taste fruits and vegetables.
- **Tooty Fruity Vegie Project, NSW** - (Newell et al. 2004) – **Behaviour change** – Food records showed an 18% increase in fruit consumption and 14% increase in vegetable consumption. Control groups showed up to a -14% decrease in fruit consumption.
- **Junior Master Gardener Program** (Dirks and Orvis 2005) – **Attitude change** - After implementation, 64% of students tried new fruit and vegetables; 58% had an improved nutritional attitude.

### GARDEN-BASED LITERACY

- **Sheffield (1992)** studied a third and fourth grade summer school project using a whole-language approach with gardening. Results of formal pre- and post-tests of achievement, self-esteem, and attitudes toward school indicated greater gains in all three areas in garden-based classes as compared to control classes. The most significant gains were in self-esteem, achievement in reading, reading comprehension, spelling, and written expression.
- **Closing the Achievement Gap: Using the Environment as an Integrating Context for Learning** (EIC) (Lieberman and Hoody 1998). In an evaluation of 17 comparative studies, educators reported the significant effects of EIC on students’ learning of language arts, and they included:
  - **Improved development of language arts skills (93%)**. When students read, write and speak about topics that interest them, they are more likely to make an effort to strengthen these important skills.
Greater enthusiasm for language arts (94%) – When allowed to explore the environment and related community topics, students commonly express a growing interest in developing their language arts skills.

More success in communicating with others (94%, and with public and private agencies (91%) – Presented with extensive opportunities to make presentations, students gain confidence, an expanding technical vocabulary, and greater ability to make persuasive oral presentations.

GARDEN-BASED SUSTAINABILITY
Michael Murphy (2003) evaluated students learning from the Edible Schoolyard Program in Berkeley, California. This evaluation surveyed and compared 165 sixth graders and 64 teachers from the two schools, one of which did not have a garden program. It was found that students who made the greatest gains in an overall understanding of ecological principles made significantly greater gains in the numbers of servings of fruits and vegetables they reported eating.

BARRIERS
While it is evident that school gardens are a significant resource for education in elementary schools, Graham et al. (2005) found the greatest barriers for using the garden for academic instruction were a lack of time (88%) and a lack of curricular materials linked to academic standards (74%) (Graham et al. 2005). A similar result was found in our Perth survey. Teachers were identified as the main people responsible for food gardens in schools (83%), and that the most significant barriers for teachers wanting to establish or maintain food gardens were: limited access to resources (82%), not having the required information or knowledge (70%), lack of funding opportunities (67%), and lack of time (65% for maintenance).

In a review of over 200 primary school food garden projects in the USA, DeMarco et al. (1999) found that one of the key critical factors for long-term success were commitment to integrating gardening in their curriculum. One such resource, developed by the California Department of Education, provides a framework *The Guide for Linking School Gardens to California Educational Standards*, that describes available instructional materials linking gardens and nutrition lessons to educational standards (California Department of Education 2002).

LITERATURE CITED


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