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Timboon Agriculture Project

Real learning outcomes with genuine results.¹

Program name:	Timboon Agriculture Project
Program owner:	Timboon P-12 School
Location:	Timboon, Victoria
Month/year initiated:	July 2012
Funding:	Sourced through WestVic Dairy from: Gardiner Foundation 2012/13, Dairy Australia 2013-16; currently supported by local philanthropic groups and local industry

About Timboon P-12 School and the Timboon Agriculture Project (TAP)

The town of Timboon is located in the Western District of Victoria, just over 200kms south-west of Melbourne. It is a rural centre in a rich dairy area where the production of milk, cheese and butter is central to the local economy. Timboon's local school has students from prep to Year 12, many from families involved in the local agricultural industry.

In 2012 Timboon P-12 School was at a crossroads – there was evidence of student disengagement in that year's 'Student Attitudes to School Survey' and retention rates in student transition from primary to secondary school were low. Recognising a disconnect between the school and the local community, the school leadership, in collaboration with teachers and school staff, aimed to increase students' engagement in the school curriculum through introducing applied science and maths in the context of local agribusinesses and agriculture.

After obtaining funding, a Steering Committee comprised of teachers, industry personnel, vets, farmers, business operators, former students, field officers, and parents was formed. Initial goals of the group were to:

- Increase applied learning opportunities for students
- Increase the uptake of STEM subjects, especially at senior levels
- Increase community engagement

¹ Quote from Andrea Vallance, TAP coordinator/ learning broker



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- Increase school retention rates
- Increase an awareness of agricultural career opportunities.

The Timboon Agriculture Project (TAP) was formed, with local industry experts working with teachers to develop occupation and sector-specific curriculum and lesson plans, classroom presentations, activities and excursions. The initial focus of the project was on Years 5-8 in Maths/Science, but this has quickly broadened over time.



Agronomist with Years 3 & 4 on Paddock to Plate (Photo supplied by Timboon P-12 School)

How has TAP been implemented?

The program involves incorporating applied learning experiences into the classroom, with a specific focus on local primary industries. Although the initial focus was on dairy and agricultural related careers and professions, this was extended to include other local businesses and industries such as tourism, food processing and hospitality. In addition, the initial focus on classroom content for STEM subjects was extended to include other subjects. For instance, the establishment and running of a lavender farm, existing as a school-run agricultural enterprise, was incorporated into the school's legal/commerce class.

The TAP Coordinator/Learning Broker role has emerged as a linchpin of community and industry partnerships. This role, alongside teachers being open and committed to using the opportunities offered by the TAP to support learning outcomes, is a key driver of the program. The Learning Broker's role involves engaging and linking teachers with industry personnel to develop activities and modules that are packaged with resources, contacts, extension activities, guest speakers and excursions. Industry personnel that are good communicators and experts in their field are carefully selected with school parents involved as 'experts' whenever appropriate. The Learning Broker keeps abreast of what teachers are teaching in the classroom, and builds and maintains networks of local families, businesses and industry contacts.



TAP's On!

An event showcasing the project's achievements is held annually at the school. 'TAP's On!' is an expo providing an opportunity for the school's staff and students to show their families, community, industry personnel and other educators how they have integrated agriculture and other industries within the curriculum to support learning outcomes across all areas. Invitations are extended to other local primary schools (Nullawarre Primary and Simpson Primary), with all visitors being rotated through a series of workshops (described as an 'agriculture speed dating' experience). TAP's On! is based on the premise that 'you know you know something when you can explain it to someone else' and it reinforces or revisits the learning that was undertaken in the classroom.

Hear the Principal, staff, TAP Coordinator/Learning Broker and parents talk about why the TAP was implemented, and the observed impacts of the project to date. [Supporting Video 1](#).

How does it engage students and their families in career education?

In the early stages of the TAP, parents were an important source of initial connections and expertise, with some joining the TAP Steering Committee. Parents and family members continue to be an important asset to the program, with their skillsets and knowledge contributing directly or indirectly to the associated activities and units. Parents volunteer their time in undertaking a range of activities, such as providing access to their property or small business to students for field trips, working with teachers on lessons plans, presenting as a guest speaker, or delivering professional development to teachers.

"We didn't call on parents for money, we call on parents for their time..."

Chris Hibburt, Owner of The Vet Group, former School Council President and Parent

Connecting families and communities

The whole premise of the TAP is about 'TAPping' into the community and benefitting from the expertise and knowledge of the local community and industries. Through building pride in their local area, it is hoped that students will either remain or return to the region with skills to help build the Timboon community. The TAP is a partnership between the school, the agricultural industry, the businesses and the surrounding community.

"As a teacher it's taught me a lot about the area we live in."

Melissa Berry, Year 1/2 Teacher and Parent

"It was a really good exercise as a parent to actually see the amount of work that's involved in creating a lesson plan for children."

Mark Cuthell, Manager of Port Campbell Tourist Information Centre, TAP Presenter, TAP Professional Development Provider and Parent.

Between August 2012 and December 2018 (over six years since commencement), more than 370 industry personnel provided direct curriculum content and teacher professional development; 99 individual community and industry personnel in 2018 alone. TAP presenters and involved teachers have highlighted that this has been a two-way learning opportunity – with industry specialists (who are often parents of students) gaining a greater appreciation of the level of work involved in creating lessons plans, and teachers learning more about their local environment and community.

Anecdotally, parents and staff link this closely connected sense of community to several positive outcomes for students once they leave school. It was perceived that it gave them a greater sense of support and



perspective around what pathways are available, taking the pressure off needing to make the 'right' choice; and it provided a network of potential employers that could be used to provide opportunities such as school-based apprenticeships or work placement after school or tertiary qualifications were gained. Importantly, these were often locally-based opportunities, increasing the ability for students or former students to find employment in the Timboon area.

Preparing students for the 'real world'

The TAP facilitates an applied learning approach in the classroom, linking the curriculum with tasks and activities associated with specific occupations and industries. This involves dozens of excursions, workshops, guest presenters, lesson plans and projects held throughout the school year from prep onwards – distinguished by the participation of business owners and industry experts. The box below is a small sample of some of the activities undertaken. The TAP also exists alongside other programs offered at the school, like VCAL, as a package for students who prefer and are more engaged by a 'hands-on' style of learning.

“...they get to meet the shearer and they do all this math...well they forget they are doing math I think!”

Gabby Theologous, Senior Teacher, Food Technology, School Leadership Team

Examples of TAP activities and projects

TAP Lavender Harvest: Social enterprise where lavender crops are maintained and harvested at the school by students and turned into a range of products.

Chicken and Ducks: Primary school students incubate and raise chickens and ducks on-site at the school.

Game of Drones Challenge: Year 7 Science class demonstrated experimental methods testing different fertilisers with plots of planted oats as part of the nation-wide competition run by 2018 Hermitage Research facility.

Sheepish Writing: Year 3/4 students were visited by shearer Steve McKenzie and students asked questions with the intent of practicing their procedural writing skills.

Farm Safety A-Z: Year 5/6 students develop an online game to teach important Farm Safety messages to other primary school students involving purple aliens and a trip to 'Planet Burb'. This game won them A-Z Farm Safety Guide Competition and \$1000 in prize money.

Camembert in the Classroom Project: Year 8 Science create their own cheese which is judged by local cheesemakers.

Collaborative Coding: The Year 7/8 collaborative coding class is a science-based community partnership investigating how to code and work in a team. Students visited a local robotic dairy where the owners explain why they introduced Lely Astronaut robots and how it impacts on cow health and milk production.

Inspiring/Aspiring Authors: A skype session with author of the George the Farmer books, Simone Kain, provided an opportunity for Year 1/2 students to develop their own story set on a farm.

Hear students, parents, staff and business owners talk about their involvement in TAP activities and projects. [Supporting Video 2](#).



Expanding horizons and promoting conversations at home

The TAP aims to broaden parents and students' notions of what agriculture jobs look like, and what jobs and career opportunities are available in their local community. The different TAP project-based activities and guest speakers and presenters have been identified as inspiring and exciting students, promoting interesting conversations 'at the dinner table'. The relatability of the TAP content to students lived experiences on their family farms further provides opportunity for discussions at home. For example, the farm safety unit apparently prompted many students to discuss with their parents whether the occupational health and safety measures they were learning about were being applied at their family farm or property.

"The day we went out to that farm, I learned a lot. And I really enjoyed sharing that with Mum and Dad."

Year 11 Student

TAP also provides an opportunity for students to learn about the diverse experiences of local business owners and industry experts. As one teacher described, for secondary students that are unclear about what they want to do, or have a narrow perspective on how to attain a certain goal, TAP exposes them to people who have taken a range of pathways and demonstrate that pathways after school are never straightforward.

Emerging outcomes and lessons learnt

Improvements have been observed across several measures of student engagement and wellbeing since the introduction of TAP. Retention rates of students from Year 6 to Year 7 is now close to 100 percent. Numeracy outcomes in NAPLAN at all year levels at the school climbed annually from 2012 to 2015 and have been maintained and/or trending upwards at a more gradual level from 2016 to 2018. This is particularly evident in 2018 with 52 percent of Year 9 students scoring in the top 2 bands in Numeracy compared with the state average of 27 percent. Seventy-one percent of Timboon Year 7-9 students responded positively to questions of school connectedness which was well above the state average and the average of similar rural schools. Further, staff have noted that the science literacy levels of Timboon P-12 students' is often commented on by education providers or industry specialists. In addition physics, chemistry and biology classes are provided at VCE level – with good numbers despite being a small school.

"I've done basically everything that I could get into with it [TAP]... because that's just what I like doing, just agricultural stuff."

Year 11 Student

It is acknowledged that these results are not just due to TAP. A range of measures and programs have also been introduced over a similar timeframe, such as the Victorian Certificate of Applied Learning (VCAL) in 2010, Year 7/8 electives in 2011 and events such as KidsMatter Days held annually from 2013-2018.

Critical enablers

Staff, parents and volunteers were able to identify several factors of the TAP that make it successful and enable its implementation.

- **Steering Committee:** The Steering Committee comprised of school leadership and strong industry advocates with family connections to the school was vital in the early stages to guide the development and champion the idea of the TAP within the parent body and in the broader community and industry.
- **Coordinator/Learning Broker role:** The coordinator/learning broker's role was considered the driving force of the program, contingent on several characteristics; that the person is passionate about what they do; has an understanding of the teaching profession and teacher time constraints; has connections to the agricultural industry and the broader community; is independent and separate from the teaching staff; work on a part-time basis (one day a week) so teachers take ownership of the project and not rely on the coordinator.



- **Support from the principal and school leadership:** This was considered key to the program's success, with trickle down effects involving the support from school staff and the community.
- **Enthusiasm and support from teachers:** In order to embed career education within the curriculum (for example developing a Year 5/6 math unit using examples relevant to the tourism sector), teachers have to feel as if they are supported with resources and the learning has to be real and relevant to achieve outcomes. Teachers must take ownership of the units and activities they are running. Providing professional development that immerses them within the sectors they will be incorporating into their class activities is an important part of that.
- **Starting early:** Embedding career related outcomes into the curriculum needs to start from prep to open a world of opportunity to students from an early age.
- **Starting small:** Starting the program with a small cohort of students in late primary school and early secondary school and focused predominantly on maths and science subjects, enabled successes to be more manageable, achievable and celebrated.
- **Celebrating achievements and contributions:** The TAP's On! day is important in instilling pride among students, teachers and industries involved in the activities throughout the year and provides an opportunity for the school to 'give back' to all volunteer contributors. This is vital in sustaining the support of the community and maintain the positive reputation of the school and the program. This also includes celebrating individual achievements by students and industry and small business partners. TAP curriculum initiatives are reported in the TAP blog on the Timboon P-12 School website and snapshots are posted on the School's Facebook page.
- **Embedding content into the curriculum:** One of the more innovative aspects of the program is the embedding of the content across subjects with it not existing as a stand-alone subject.
- **Flexibility:** The content of the TAP is constantly evolving as it adapts to meet the changing needs of its students, the curriculum and the changing local workforce. Part of the coordinator/learning broker's role is to keep up to date with new opportunities within local industries and the curriculum in order to effectively link them and keep the content of the TAP relevant and exciting.

“...quite apart from the fact that you've got people coming in from outside and sharing, when the teachers themselves are excited, it transmits to the kids.”

Robyn Vale, TAP Steering Committee Chair, Parent.

Challenges

Parents were at first wary of the program, concerned that the focus on the agricultural/dairy sector would mean a focus on low-level jobs. The program's focus on a broad range of professions, involving a range of educational and vocational pathways, and the communication of this focus addressed this concern. Finding creative ways to gain funding for TAP activities was also an ongoing process. Maintaining teachers' interest and investment in the program, and keeping the TAP curriculum input current, is also a constant project but the dedicated time and resources of the coordinator/learning broker mitigates this challenge.

Future directions

Already well established, the program hopes to continue to evolve and adapt to meet the needs of their student population and reflect the local industries in the area.

Further information

- [http://www.timboonp12.vic.edu.au/page/206/Timboon-Agriculture-Project-\(TAP\).](http://www.timboonp12.vic.edu.au/page/206/Timboon-Agriculture-Project-(TAP))
- <http://timboonagproject.weebly.com/tap-blog>.
- If you would like to know more about Future Ready, visit www.schooltowork.education.gov.au.

