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## "Kids to Farms" Child-led Program

 Evaluation
## Final Report

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## Acknowledgement

The project was prepared on lutruwita (Tasmania) Aboriginal land. We acknowledge, with deep respect the traditional owners of this land, the palawa people.
The palawa people belong to the oldest continuing culture in the world. They cared and protected Country for thousands of years. They knew this land, they lived on the land, and they died on these lands. We honour them.

We pay respects to elders past and present and to the many Aboriginal people that did not make elder status and to the Tasmanian Aboriginal community that continue to care for Country.

We recognise a history of truth which acknowledges the impacts of invasion and colonisation upon Aboriginal people resulting in the forcible removal from their lands.
Our Island is deeply unique, with spectacular landscapes with our cities and towns surrounded by bushland, wilderness, mountain ranges and beaches.
We stand for a future that profoundly respects and acknowledges Aboriginal perspectives, culture, language, and history. And a continued effort to fight for Aboriginal justice and rights paving the way for a strong future.

## Research team

Twenty-six "Tassie Researchers" from two Tasmanian public schools
Chief Investigator Dr Becky Shelley, Deputy Director, Peter Underwood Centre
Dr Megan Lang, Research Fellow, Peter Underwood Centre
Adjunct Assoc. Prof Noleine Fitzallen, Peter Underwood Centre
Approval to conduct the research was obtained from the HREC at the University of Tasmania and the Department of Education.

## Suggested citation

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## Project background

The Tasmanian Farmers and Grazier's Association (TFGA) "Kids to Farms" initiative was designed to engage and excite primary school children in Food and Fibre Production Learning.
"Kids to Farms" was funded by the Department of Agriculture, Fisheries and Forestry. The program offers classroom resources, excursion sites, professional development for teachers, and even online video-calls with farmers.

The Peter Underwood Centre was contracted to conduct child-led research about "Kids to Farms", developing a framework that supports children's participation and agency in ways that are meaningful to children and adults.


## National context

Educating children and young people about the food and fibre industries in Australia is vital to the economic future of the country (Hemmings \& Halsey, 2015). In a recent report, the Primary Industries Education Foundation Australia (PEIFA) found that 30\% of students did not know that yoghurt was an animal product, or that denim jeans were made of cotton. Overall, results showed that knowledge about food and fibre industries is uneven, and that education is needed around specific industries, applications of technology and science, and the full spectrum of job opportunities in the primary industries (PEIFA, 2020).

The PEIFA 2020 survey followed a baseline survey conducted in 2011 regarding Australian student and teacher understanding of food and fibre (Hillman \& Buckley, 2011). For this national study, 213 valid responses were received from Grade 6 students. The response rate for the Tassie Researcher project reported here is comparable with the baseline survey with 215 responses, especially considering the short period the survey developed in this project was open (six weeks).

For more information on context please see the most recent PIEFA analyses Food, Fibre and our Future Student Survey Summary Report 2020 Food, Fibre and our Future Student Survey Data Report 2020
Teachers and Primary Industries Teacher Survey Report 2021


PIEFA's Chief Executive Officer, Luciano Mesiti, commented: "It's important that we attract highly skilled people to the agriculture profession so we can continue to grow our primary industries that not only feed and clothe us, but provide valuable export income for our Nation. ...There is currently a shortage of skilled people in agriculture and careers in the field are rewarding and provide a real benefit to society." (Mesiti \& Griffiths, 2021, p. 22)

## Tassie Researchers

Tassie Researchers is an innovative method to support child-led research.
Developed in 2019 by researchers at the University of Tasmania, it is an ethical, engaging and educational approach with wide application to service design, social research, and policy-making.

Children are an important stakeholder group. Who better to help adults understand children's experiences and perspectives about the 'Kids to Farm' initiative than the children who have had one or more "Kids to Farm" excursions themselves?

Two Tasmanian primary schools were recruited, they are referred to in the report as "Seaside Primary School" and "Hilldale Primary School".


## Timeline



Survey development - Tassie Researchers

Development of the survey and data analysis was facilitated through our "Tassie Researchers" program

This program ran over three days at Seaside Primary and five days at Hilldale Primary, in which the children were trained in the skills necessary to conduct a research project.

| Day 1 | Day 2 | Day 3 | Break | Day 4 | Day 5 |
| :---: | :---: | :---: | :---: | :---: | :---: |
| Asking research questions <br> Ethics | Refining research questions and creating survey questions | Building a survey and preparing it for distribution | Surveys distributed and data collected | Exploring the data and discussing findings | Refining findings and implications |

## Survey development - Tassie Researchers

## To evaluate the "Kids to Farms" program we took a four-step approach:

## 1. Initial survey development - Seaside Primary School:

- 10 child researchers from Seaside Primary School reflected on their visit to Hagley Farm School Visitor Centre and Government House Tasmania and developed survey questions for a draft survey (November 2021). These researchers were aged 9-11.

2. Survey refinement - Hilldale Primary School:

- 16 child researchers from Hilldale Primary School reflected on their visit to the Botanical Gardens in Hobart and on the survey developed by the children at Seaside Primary School. Then they adapted the survey and developed it to make it suitable for collecting data across different contexts (August 2022). These researchers were also aged 9-11.


## 3. Survey dissemination - TFGA

- The survey was presented to the TFGA who distributed it to schools that had participated in "Kids to Farms" excursions. 215 responses were collected and the data presented to the Peter Underwood Centre for analysis.

4. Data analysis - Hilldale Primary School:

- 16 child researchers from Hilldale Primary School analysed the data and identified key findings (October 2022).


## 5. Data analysis - Adult researchers

- Researchers from the Peter Underwood Centre conducted the final analysis of the data and interpreted the findings informed by the children's analysis (November 2022).

Note: Research in Tasmanian Government schools was restricted in Term 1 2022. There was therefore a long gap between work done with Seaside Primary School and Hilldale Primary School. For this reason, it was decided to conduct analysis only with Hilldale Primary School. We visited Seaside Primary School later to share the survey results with the students and teachers there.

Initial survey development - Seaside Primary

## Seaside Primary School visited the Hagley Farm School Visitor Centre

The excursion was held in the previous school term to our visit, but the children recalled their trip vividly.


Initial survey development - Seaside Primary
The children conducted analyses of feedback sheets that had been filled out by other students who had been on a "Kids to Farms" excursion. This work supported their understanding of social science research and the types of questions that would be useful on the survey. The children then developed survey questions and decided which to include.



## Initial survey development - Seaside Primary

The survey was tested and approved by the child researchers. This survey became a draft for the final survey*. It was invaluable as a starting point for work with Hilldale Primary School in two ways. First, it contained strong examples of the sorts of things that the children who visited Hagley Farm experienced and found important. Second, it gave the adult researchers insight into children's perspectives that could be further explored with Hilldale Primary School.

1. How did you feel during the excursion? (Please tick all that apply)
$\square$ Excited.................... (2)
$\square$ Interested..............
$\square$ Normal.................$\square$ Distracted.............. ©Bored.......................None of the above

[^0]8. Did you feel grossed out or disgusted by anything? (tick all that apply)Dung (poo)Smell
MilkEggsNone of the above
Other [please specify]
9. Is there anything you would like to learn more about? (tick all that apply)
$\square$ Producing wool
$\square$ Soil scienceWeaving/knitting $\square$ Producing Milk/butter/cheese/yoghurtVegetable and fruit cropsGrowing trees and producing woodEggs
Other [please specify]
2. Would you go on this excursion again?
$\square$ Yes
$\square$ No

Excursion - Hilldale Primary

Hilldale Primary School visited the Botanical Gardens in Hobart A Peter Underwood Centre researcher accompanied the group of grade 4-6 students on this excursion.

Some of the children were fascinated by the lemonade tree. They made comments about how much they loved lemonade as a drink and discussed how it was made. Others were interested in the curious "stepover" technique of weaving apple tree branches together. Everyone enjoyed smelling crushed leaves in the herb garden and listened attentively as we learned about plants and the history of the gardens.


Facilitating understanding - Hilldale Primary
Peter Underwood researchers visited Hilldale Primary School the following term. The children recalled their experiences on excursion to the Gardens and explored the bigger picture in terms of producing and using food and fibre.


## Survey refinement - Hilldale Primary

The children refined the survey questions provided by Seaside Primary School. The final survey therefore reflected the work of two groups of child researchers. It was designed to capture data that would be useful to the TFGA and also reflect the perspectives of the child participants. The finished survey was presented to the TFGA*.


Ideas for survey questions, Hilldale Primary

## Survey distribution

The TFGA distributed the survey to participating schools across Tasmania, in both paper and online format (Survey Monkey). A total of 215 responses were received. Most children filled out the survey themselves. For the youngest age group (aged 5-6) a teacher discussed the questions with the children and recorded their answers in the survey.

The final question in the survey asked for feedback on the survey itself. Most children gave the survey 4 or 5 stars, although there was a teacher comment that the younger children found it hard to understand. This demonstrated how child researchers can help to ensure that research is accessible to their peers. It also highlights that it would have been ideal for younger children to act as advisors during survey development.

What did you think of this survey?
(1 star = poor, 5 stars = perfect)


## Data analysis - Hilldale Primary

The Tassie Researchers analysis group examined the survey data and explored the most and least popular aspects of the excursions. The group learned some data analysis terms and skills, with a focus on reading the data, reading within the data, and reading beyond the data.

The survey had multiple-choice questions as well as free responses. The children spent some time categorising and thinking about the free responses. These produced some important insights, some of which were surprising. For example, the importance of food to the excursion experience became apparent, as did an interest in cows in the "animals" category.

This categorising activity was unfamiliar to the children, who had some experience of bar graphs and pie charts, but had not had the opportunity to explore data in different ways. Broadening students' experience with data analysis and representation is important to developing understanding and critical interpretation of data and statistics. The children formed and adapted categories as they sorted, and asked questions about what they were seeing in the data, just as adult researchers might do.


Data analysis - Hilldale Primary

Question: Would you like to go on another excursion?
If yes, What would you like to do?

This example shows how the children were beginning to ask questions about what they were seeing in the data.


Data analysis Hilldale Primary


Data analysis - Hilldale Primary

Question: Would you change anything about your excursion?

In this example, the children both categorised and tallied the responses according to which method made most sense to them.


## Results - Child researcher perceptions

We conducted a final brainstorming session to draw out the children's perspectives as informed by their experiences of the excursion, their immersion in the data, and their analysis. This session was recorded and transcribed. The key findings are summarised below:

## Key findings

- The excursions are very worthwhile. There were more positive statements than negative statements and most people said they wouldn't change anything about the excursion.
- It is important to children to spend time outside. They loved rolling down hills, lying in the grass, breathing fresh air, and having a break from schoolwork.
- "Being in the experience" and "being there" were among responses that showed that the whole experience was important, including the bus trip, being together with others, listening and learning, and being in the outdoors.
- Fun was mentioned often, and could mean fun with friends as well as having fun but still listening and learning.
- Experiencing things with animals and cooking and eating food were very popular.
- The group felt lucky that their class was chosen for the excursion. They agreed that it was important that children should get to experience these things.

Results - Child survey - How old are you?

Adult researcher analysis
Analysis was undertaken using an Excel spreadsheet into which all data were entered.

Most children who filled out a survey were 10-11 years of age. We had not anticipated that children aged 5-6 would take part in an excursion, but two Prep classes returned one survey each that had been completed by their teacher during group discussion.

Note: In the following analyses, the 5-6 and 6-7 age groups are omitted due to small numbers of respondents.

Results - Where did you go on excursion?

Where did you go on excursion?


The "Kids to Farms" excursion destinations were well-represented in the data.

## Results - Did you discover anything?

Did you discover anything during your excursion?


It is clear from the responses that going to new places was central to the excursion experience. However, looking at the free responses highlighted the interest many children had in the ideas that were shared, the 'hands-on' experiences and the things that they learned.

## Other (please specify)

- animals
- facts about farm animals that I didn't know about.
- Historic items and learning about life in the past on the farm and how machinery and jobs have changed on the farm
- holding the chickens
- How to weigh animals and to measure the water in the ground. Also about the animals and things there
- If you pick up a sea cucumber and it spurts out water you should put it back in the water.
- Like structures \& telescopes etc
- Looking at fish
- no
- no
- seeing and experiencing new things up close
- Shark and others.
- some interesting facts about the animals
- Things you need to do to keep a farm running
- we learnt how they grow plants and how they take care of the animals.

Results - What was your favourite activity?

## Favourite activity



The question, "What was your favourite activity?" generated many text-based responses under the "Other" option. We sorted these data into categories, which show the high level of interest in animals, gardening and planting, and cooking. A heatmap (shown on next slide) for the categories against the more-represented age-groups shows how interests may change even in these few years of development.

Results - What was your favourite activity?

Although results reflect the popularity of the excursion activities for each age group, it is interesting
to note the association between increased age and increased interest in animals, and decreased interest in art and craft. Gardening and planting things also showed a lower proportion of interest among older children.

These results highlight the importance of regular inclusion of children's input when designing activities for different age groups to ensure activities capture children's interests and are age-appropriate. The data also illustrate the importance of including hands-on activities that encourage students to engage more in the learning context

| Favourite activity | 8-9 | 10-11 | 12-13 |
| :---: | :---: | :---: | :---: |
| Activities | 2.4\% | 7.8\% | 9.6\% |
| Animals | 12.2\% | 25.2\% | 26.9\% |
| Army | 0.0\% | 1.9\% | 3.8\% |
| Art and Craft | 17.1\% | 1.0\% | 1.9\% |
| Bus trip | 0.0\% | 4.9\% | 0.0\% |
| Cooking | 19.5\% | 7.8\% | 9.6\% |
| Eating | 0.0\% | 3.9\% | 5.8\% |
| Football | 0.0\% | 1.9\% | 1.9\% |
| Free stuff | 4.9\% | 2.9\% | 1.9\% |
| Gardening/planting | 17.1\% | 12.6\% | 9.6\% |
| History | 0.0\% | 5.8\% | 3.8\% |
| No favourite | 12.2\% | 2.9\% | 3.8\% |
| Outside time | 0.0\% | 1.0\% | 9.6\% |
| Tractor/farm equipment | 7.3\% | 5.8\% | 0.0\% |
| VR/games | 7.3\% | 8.7\% | 11.5\% |

Results - What was good about the excursion?

When working with the Tassie Researcher groups, it became clear to us that, for many children, the whole experience of an excursion is meaningful. The value of the learning experience was not lost on them, but it is shaped by the sensory experience of being outside, spending time with animals, doing something new, enjoying some freedoms with friends, and indulging in food and play.

The results made it obvious that the "Kids to Farms" excursions are able to provide such holistic experiences and that they leave a lasting impression.

What was good about the excursion?


What was good about the excursion? - other


## Results - Why would you go back to this destination?

The answers to this question again highlight the importance of the experience of "being there" to the excursions. It is notable that most respondents were keen to share the experience, and also to learn more.

Responses to the "Other" option included: because it was fun (6); a good experience (4); that it was outside (3); and had good food (2).

There is some variation in the responses according to age-group, with a slightly different emphasis for each. The younger children ( $8-9$ year olds) were most interested in sharing the experience with family and friends, which was much less the case for 12-13 year olds. However, both these groups were keen to learn more, and all three groups considered their destination a "good place to be".

Why would you go back to this destination?


Results - How did you feel during the excursion?

Measuring emotional responses to an experience is useful as an indicator of how children are engaging with the activity (Ainley \& Ainley, 2011). The majority of responses were situated in the positive end of the spectrum, with free responses also including "ecstatic" and "enthusiastic". Some responses included both positive and negative emotions, such as "bored and happy."

Differences between age groups are apparent, with older children less excited and more calm. It is interesting that no $8-9$ year olds reported feeling bored.

How did you feel during the excursion?


## Results - Would you like to go on another excursion?

The overwhelmingly positive attitude towards engaging with future excursions in conjunction with the interest in returning to the same destination, learning more, and experiencing new places, is an endorsement of the success of the "Kids to Farms" program. The respondents show significant interest in animals, food production and preparation, and hands-on experiences with friends.


## Results - I would like to learn more about...

Growing food, jobs that grow food, and jobs that use food were clear preferences for future learning among respondents to the survey. Overall, the results point to less interest in fibre production and products. This is possibly due to less exposure to the possibilities in these industries and suggests an opportunity for future engagement.

In the responses to the "Other" category, responses involving animals and farming formed the top response (15), with some respondents not wishing to learn anything (7), and the remainder spread among specific areas such as food and cooking, botany, gardening, geology, history, technology, military, and arts and craft.

## I would like to learn more about...



## Results - Would you change anything?

This final question showed the high level of agreement that the "Kids to Farms" excursions are a highly-valued experience among children in Tasmania.

In this free-response question, the main issues were that the excursions should last for longer and provide even more activities with which to engage. At times, wintery weather or tight shoes caused temporary discomfort, but overall, feedback was overwhelmingly positive.

Would you change anything about the excursion?


## Results - Adult researcher reflections

The development of the survey and the subsequent analysis of the data engaged the students in the practice of statistics - pose a question, collect data, analyse data, and draw conclusions (Watson et al, 2018).

The process illustrated for the children how their ideas were taken on board and included in the development of the survey. This made the process authentic and personally connected.

The data analysis highlighted for the children that not everyone has the same opinion, that ideas can be grouped and categorised to facilitate analysis, and that data analysis can assist with comparing and contrasting opinions and ideas. The analysis helped the students consider the results in terms of a broader perspective (across the state) that extended their personal experience by making them think about the experience of others.

The survey has provided baseline data with which the TFGA could compare when implementing new activities or including alternative excursion destinations.


## Results - Final summary

The survey results indicate that the "Kids to Farms" excursions are valued by students and that they have impact. The following points represent the key findings of both the Tassie Researcher and the adult analyses.

- The Tassie Researchers recognised the way that being on excursion connected with the senses and emotions in a way that is different to classroom learning. We interpret this as indicating strong engagement that is likely to support good retention and positive associations with the learned material and context
- The Tassie Researchers highlighted the interest young people have in animals, especially cows. We add the observation that the interest shown in growing food and in jobs around growing and producing food may reflect greater exposure to these areas, implying an opportunity to also target experiences related to fibre production, design and manufacturing
- From our and the Tassie Researcher analyses as well as our interactions with the students at Hilldale and Seaside Primary, it is clear that students value the learning and exposure to new things that the "Kids to Farms" excursions offer.
- The age-related differences in responses highlight the importance of regularly including children in planning learning activities and evaluating the experiences from the children's perspective.


## References

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Appendix A - Draft survey

Tassie Researchers
UNIVERSITY of
TASMANIA

- Peter Underwood Centre


## Kids2Farms survey

What school do you go to?

## What grade are you in?

1. How did you feel during the excursion? (Please tick all that apply)

Excited..................Interested.
$\square$ Normal
$\square$ Distracted..............Bored..$\square$ None of the above

$\square$

2. Would you go on this excursion again?

3. Did you learn anything new on the excursion?

4. What were your favourite activities? (Please choose up to 5)

5. What did you find most interesting?Learning about food production..........Learning about fibre production
None of the above. $\qquad$
$\qquad$
6. Would you like to work on a farm one day?
$\square$ YesNo

## Appendix A - Draft survey

7. What are some food and fibre-related jobs you might like to do one day? (tick all that apply)

## $\square$ Farmer

$\square$ Butter/cheese/yoghurt maker
$\square$ Weaver/cloth maker
$\square$ Clothes designer
$\square$ Chef
$\square$ Fisherman
$\square$ Butcher
$\square$ Food safety person$\square$ None of the above
Other [please specify]
6. Which part of food and fibre production is most interesting? (Please tick 1)

## $\square$ Animals like cows, sheep and chickens

$\square$ Vegetable and herb gardens
$\square$ Products like wool or cotton
$\square$ Trees and wood
$\square$ Crops like apples, potatoes or nutsNone of the above
Other [please specify]
8. Did you feel grossed out or disgusted by anything? (tick all
that apply)
$\square$ Mud
$\square$ Dung (poo)
$\square$ Smell
$\square$ Animals
$\square$ Milk
$\square$ Eggs
$\square$ None of the above Other [please specify]
9. Is there anything you would like to learn more about? (tick all that apply)
$\square$ Producing woolSoil scienceWeaving/knitting
$\square$ Producing Milk/butter/cheese/yoghurt
$\square$ Vegetable and fruit crops
$\square$ Growing trees and producing wood
Other [please specify]

Appendix A - Draft survey
10. Would you change anything about your excursion?


## Kids to Farms Excursion


4. Did you discover anything during your excursion?
$\square$ Places
$\square \quad$ Ideas
$\square \quad$ Stories
$\square \quad$ Other [Please specify]
5. What was your favourite activity? (Write or draw)


## Appendix B - Final survey

Page 3 of 6
6. What was good about the excursion? [tick all that apply]
$\square$ Break time or free time
$\square \quad$ Being outside
$\square$ Talking with experts
$\square$ Sharing what you know with others
$\square$ Teamwork (working together with others)
$\square$ Doing new things
$\square$ Other [Please specify]
$\qquad$
. Would you go like to back again? Why?
$\square \quad$ To show my family or friends
$\square$ To learn more
$\square$ Because it's a good place to be
$\square \quad$ I wouldn't go back again
$\square$ Other [Please specify]
8. Did you make or draw anything?
$\square$ Yes
$\square$ No
If yes, what did you make or draw?
[Please specify]
9. How did you feel during the excursion? (most of the time)


## Appendix B - Final survey

## Page 5 of 6

10. Would you like to go on another excursion?
$\square$ Yes
11. If yes, what would you like to do? [Please specify]
12. What would you like to learn more about?
growing fibrejobs that grow foodjobs that use foodjobs that make fibreJobs that make things with fibre
$\square \quad$ other [Please specify]

2\% ${ }^{2 \%}$ $\zeta_{\square \pi}$ Q

other [Please specify]
$\qquad$
13. Would you change anything about your excursion? What else would you have liked to have done on the day?
$\square$

Thank you for doing this survey we look forward to your responses!

Children and young people from two different primary schools who have been on Kids 2 Farms excursions designed this survey.

We would like to know what you think of it so we have one last question...

## What did you think of this survey? ( $1=$ poor, $5=$ perfect )

1
$\stackrel{1}{2}$

3 s

4



[^0]:    ## *See appendix A for full survey

