

Final Report

Onion-specific Phenomenom Resource Creation

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Delivery partner:

Edible Adventures Productions Pty Ltd

Project code:

VN20008

Project:

Onion-specific Phenomenon Resource Creation (VN20008)

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Contents

Public summary	4
Keywords	5
Introduction	6
Methodology	7
Results and discussion	10
Outputs	11
Outcomes.....	13
Monitoring and evaluation	15
Recommendations.....	17
Refereed scientific publications.....	18
References	19
Intellectual property.....	20
Acknowledgements	21
Appendices	22

Public summary

The objective of project is to further educate school-aged children about Australian onions using the Phenomenom and Nomcast programs, especially their nutritional benefits, in order to overcome the many barriers to consumption. Phenomenom is a suite of free digital teaching resources that increases positive exposure to Australian horticulture products by embedding vegetables, fruits, nuts and seeds across primary school subject areas of Science and Technology, English, the Arts, Health and Physical Education, Maths and Humanities.

The scope of this project includes onion-specific materials uncovering new research demonstrating the link between soil health and gut health, and umami and satiety for primary and lower secondary year levels. This will be achieved through the creation of three new animated podcast episodes, supporting downloadable PDF resources and through support for existing onion-specific grower interview and podcast episode in the form of a new PDF resource and animation. The materials are free to access and available for viewing and download on the Phenomenom website (phenomenom.com.au). An additional project output involves re-surveying attendees at the Phenomenom launch event in Sydney in 2019 to determine its impact on resource uptake and if future events are warranted (MT19000).

Research on past Phenomenom projects has identified the materials are helping to positively shift perceptions, to create conversation and to influence the type and variety of vegetables consumed in the home environment, with a benefit-cost ratio of 3.30 (MT18011). The format, length and content of the new materials created for this project are informed by the results of attitudinal and behaviour change research conducted for past Phenomenom projects (VG16018, MT18015 & ST19041).

Methodology

Edible Adventures Productions (EAP) worked collaboratively with Hort Innovation representatives through a resource production funnel involving the creation of topics, scripts, voiceover recordings, storyboards, asset development, animation, sound design and resource design. For the launch event surveys, 8 attendees were interviewed with structured questions designed to understand how the launch event impacted their initial and ongoing usage of the previous onion-specific Phenomenom resources created for MT18015.

Key outcomes

- School-aged children will have an increased openness to consuming Australian onions and request that their parents or caregivers add them to their normal diets.
- Teachers will have greater access to curriculum aligned resources promoting Australian onions across primary and secondary year levels. They will also recommend Phenomenom and Nomcast to their colleagues.
- Parents and caregivers will be more likely to purchase and consume Australian onions.
- For industry, a fostered link with Australian onions between the classroom and home environments and a better understanding of the potential Return On Investment (ROI) for launch events.

Recommendations to the industry for future education initiatives

Findings from past research has shown Phenomenom to be an effective, widely adopted program that will help to positively shift perceptions of vegetables among children aged 8-12. With the program enjoying a dedicated following of engaged teachers and imminently expanding its reach and influence by featuring on ABC Education (the most trusted education platform in Australia), continuing to add to the bank of materials through Nomcast resource packs with funding from unrepresented Hort Innovation funds will provide excellent grower ROI.

Keywords

Onions; Phenomenom; Nomcast; education; vegetables; children; health; teaching resource; nutrition; Australian curriculum; schools; primary school; kids; vegetable consumption; digital resources; podcast; education resources

Introduction

This aim of this project is to further educate school-aged children about Australian onions using the Phenomenom and Nomcast programs, through the development of onion-specific materials for primary and lower secondary year levels.

Phenomenom is a program that embeds education around Australian horticulture products across subject areas of Science and Technology, English, the Arts, Health and Physical Education (HPE), Maths and Humanities for children in Years 2-10. A free digital program, it is comprised of webisodes, podcast episodes, PDF curriculum resources, classroom materials and teacher guidebook. Teachers can access the resources on the dedicated website (www.phenomenom.com.au) and children/ families the webisodes on YouTube and podcast platforms. Originally funded by the vegetable industry and released in 2018 (VG16018), the main aim of the program is to address low consumption rates of Australian horticulture products amongst children through education. Just 6% of children in Australia are meeting the Australian Dietary Guidelines for serves of vegetables¹.

Historically most school-based initiatives promoting food in schools have been heavily focused on the need to eat a healthy and balanced diet (refer to Appendix 2, VG16018 Final report). Despite teachers being strongly in favour of encouraging children to eat more vegetables (refer to Appendix 3, VG16018 Final report), they feel that there aren't enough resources and lack confidence in teaching about food and nutrition in the classroom (refer to Appendix 3, VG16018 Final report).

Phenomenom and Nomcast spearhead a new approach to food education that aims to increase positive exposure to Australian horticulture products amongst children, their teachers, parents and caregivers. It draws on research that shows avoiding explicit health messages works better with kids and instead takes a curiosity-led approach. It achieves this with entertaining and fun audiovisual materials that facilitate opportunities for deeper learning through lesson plans and activities. Phenomenom also removes barriers to teacher uptake including the need for training or requiring extra room in a curriculum that is often overcrowded.

The original program launched in May 2018 and drew national media coverage, was profiled as a top education innovation by Finnish organisation HundrED and won the 2018 Parents' Voice 'Fame' award for best healthy eating initiative. Originally a 25 springboard webisode and 50 PDF curriculum resource pack hosted on a dedicated website, the program has been enhanced and added to by the mushroom, onion industries (MT18015) and as part of the Hort Innovation-wide The Good Mood Food campaign in 2020 (ST19041).

In the home environment, research has identified that Phenomenom is openly received by both parents and children as an engaging and insightful resource, helping to positively shift perceptions, to create conversation and to influence the type and variety of vegetables consumed. In the classroom, teachers report that they would use the webisode and Nomcast as classroom resources in the future and were highly likely to share the resource and recommend it to others. Students learnt something new after exposure & were specifically interested in learning about food & nutrition (Appendix 4, MT18015 Final report).

¹ <http://www.abs.gov.au/ausstats/abs@.nsf/mf/4364.0.55.001?OpenDocument>

Methodology

The iterative methodology used for this project is supported by the findings of Clear Horizon’s independent evaluation of past Phenomenom projects (Appendix 2, ST19041 Final report). Within this is an ability to refine the content of the outputs to allow Hort Innovation and the project team to respond to the specific barriers of consumption associated with Australian onions, while ensuring that the education materials are effective at engaging the end target audiences of children, their teachers, parents and caregivers.

1. Resource production

Focus areas and topics

Formulation of content focus areas is based on gap analysis of current onion specific Phenomenom resources, as well as identifying opportunities for resource improvement based on the results of past Phenomenom research reports (VG16018, MT18015 & ST19041). Specifically, the aim of the materials is to champion onions alongside new research demonstrating the link between soil health and gut health, and umami and satiety as well as address a need for further lesson plans covering sustainability from previous research findings as part of the Phenomenom program.

Initial content brainstorm sessions involved Hort Innovation representatives and the core Edible Adventures Productions (EAP) team including Project Leader, Curriculum Specialist and script writer. Additional considerations for the content were to strike a balance between ensuring teachers would find the materials useful and students being open to consuming onions that extends beyond the classroom into the home environment. The PDF resources materials use the new Nomcast episodes and onion grower video (<https://phenomenom.com.au/interview/hort-heroes-onion-growers/>) as springboards for lessons and activities, with a specific focus on Science, HPE and Design Technologies for upper primary and lower secondary year levels.

The plan for classroom material including themes, synopses and subject areas were all presented to Hort Innovation representatives for approval.

Creative development

Following the agreed content plan, the EAP team conducted more in-depth brainstorming sessions via Zoom. The minutes of each session were summarised into a working document that formed the foundations Nomcast episodes and supporting PDF lesson plans. The simultaneous creation of scripted content together with the classroom materials is a key feature of the innovative Phenomenom methodology and maximises the potential for learning about the XXXX onions.

Research from past Phenomenom projects emphasises creative execution of the resource as key to capturing and retaining the attention of students (refer to VG16018 Final report Appendix 3). Other considerations from past research include the use of humour, music, clear topics, funny anecdotes and quizzes as effective devices to engage students. Scripts were developed in collaboration with Hort Innovation representatives and were approved prior to voiceover recording and animation.

Voiceover recording

The new Nomcast episodes are narrated by project lead, Alice Zaslavsky, a well-known broadcaster and author with a special interest in sparking curiosity in food among children. Additional character voices were voiced by a professional actor.

Animation

For the Nomcast episodes, character voices, narration and music were edited then storyboarded for Hort Innovation approval. The content direction for storyboarding incorporated feedback from student and teacher surveys conducted from the first trial of animated Nomcast segments (ST19041). Less scene transitions and more frequent use of iconography were key areas for improvement and these were incorporated into the storyboards for this project.

Nomcast illustration assets were produced to mirror the style of past animated segment, with subtle updates to enhance the overall visual appeal of the series, including updates to fonts and colours.

Sound design and engineering

Sound design followed the same style as previous animated Nomcast episodes. The theme music created for the original Nomcast series was re-used, while two versions of sound design - one supporting the visuals from the animation and a pared-back version for podcast platforms - were created to maximise viewer and/ or listener engagement.

PDF resources

Four PDF resources (one supporting the onion grower interview webisode from MT18015 and each of the three new Nomcast episodes) were created consisting of lesson plans and activities for teachers to provide their students. The format and design of the PDF resources follow the existing set of 62. New illustration assets were included to demonstrate activities contained in the lesson plans and subtle changes to font and layout incorporated based on feedback from frequent Phenomenom users who requested fewer pages and a slightly less youthful font in the content body.

2. Surveys

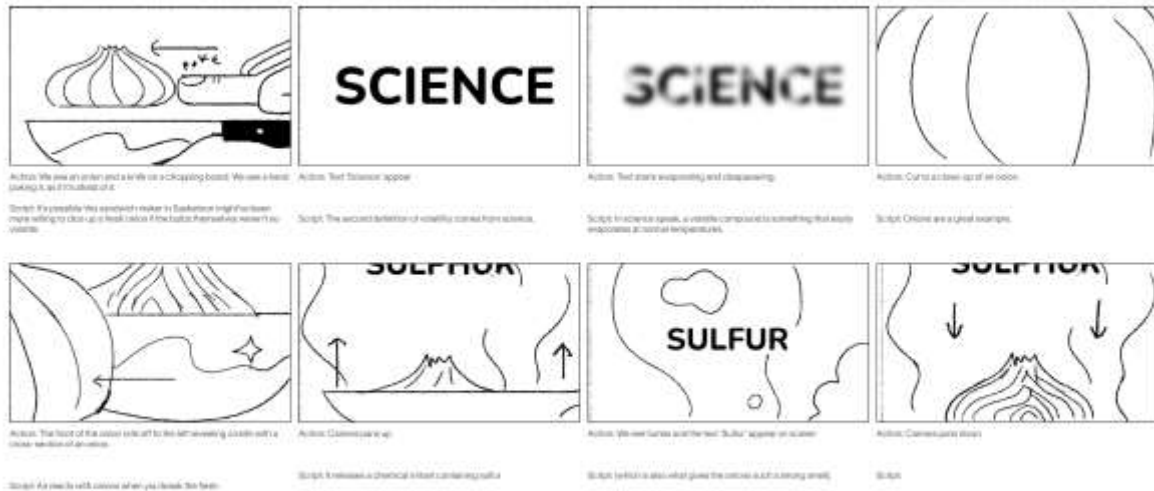
Teacher attendees from the Phenomenom launch in Sydney in 2019 (MT19000) were interviewed 27 months after the event to determine how frequently they had been using and recommending Phenomenom resources. An added aim is to increase industry understanding of the impact from launch event activities. To enable direct comparisons with existing data sets, the structure of the interviews and questions asked were adapted from the Usage & Attitudes section from Colmar Brunton's Teacher surveys (refer to Appendix 3. ST19041 Final report) - especially around how positive intentions to use the resource have translated to actual usage. Eight people participated in the interviews that were 10-20 minutes duration and a mixture of transcripts and notes were taken. Results were synthesised and summarised into the Phenomenom launch report (Appendix 1).

3. Delivery

The new onion-specific materials are freely accessible across existing Phenomenom distribution platforms including website (all material), YouTube (animated Nomcasts) and Omny (audio only Nomcasts). The Nomcast episodes each have the following information attached in the description on the dedicated website (<https://www.phenomenom.com.au>):

- Short synopsis
- Episode credits
- PDF resource download
- Curriculum codes
- Closed captions for YouTube (to enhance accessibility)
- Cover artwork for YouTube (to enhance uptake)

It is expected that the new materials will be available on ABC Education in 2022.



8

Image 1. Example storyboard for the episode



Image 2. Nomcast animation example

Results and discussion

The materials created for this project are publicly available but will not be launched until mid-April 2022, so it is too early to comment on their effectiveness with the intended audiences (upper primary and lower secondary students, their teachers and caregivers).

Refinements to the production processes based on learnings from past Phenomenom projects warrants discussion. The animated Nomcast episodes, together with supporting PDF curriculum resource have been shown to be the most effective format for increasing the desire to try new vegetables such as onions (refer to ST19041 Final report). The added benefit is that similar materials are relatively low cost and repeatable to produce, as they eliminate the need for a large production team, child actors and a reliance on celebrity guests that were features of the Phenomenom webisode content. Thus, the barrier to entry for Hort Innovation funds is low, allows new commodity-specific research to be disseminated and as such, should be considered in any future R&D funding opportunities.

The results of the surveys conducted for the Phenomenom launch (Appendix 1) in 2019 indicate that it was both memorable and motivational enough for teachers to incorporate Phenomenom into the classroom. However, the lower-than-expected number of attendees points to a need to broadcast any future launch event to a wider audience online and if used alongside other strategies that prompt greater resource uptake.

Outputs

The following outputs have been provided to Hort Innovation representatives and are available for viewing on phenomenom.com.au:

Table 1. Output summary

Output	Description	Detail
1 x PDF resource to support existing grower interview segment (https://phenomenom.com.au/interview/hort-heroes-onion-growers/)	PDF resource for use by teachers linked to Year 9 Work Studies Curriculum.	Publicly available for download on the episode page and via the search function on the website (https://phenomenom.com.au/wp-content/uploads/Ph-Hort-Heroes-Onion-Growers.pdf). Downloads to be tracked via website metadata.
1 x animation of existing Nomcast podcast episode (https://phenomenom.com.au/nomcast/nomcast-episode-1/)	6-minute animation of <i>Nomcast Episode 1 - Onions, tears and tasty bass notes</i> , an output developed for MT18015, to extend the usefulness and reach for the intended audiences (students and teachers).	Publicly available for viewing on the episode page and hosted on the Phenomenom YouTube channel (https://phenomenom.com.au/topic/super-natural-science/nomcast-episode-1-onions-tears-mayhem-and-tasty-bass-notes/). Views and analytics to be tracked using the YouTube Creator Studio.
3 x new Nomcast episodes plus 3 accompanying PDF resources	A new three-part animated Nomcast onions special that champions onions alongside new information on soil health (Part 1), gut health (Part 2) and umami and satiety (Part 3). The 3 x Nomcast episodes are designed to act as springboards for 3 x accompanying PDF resources for use by teachers linked to lower secondary Science, Health and Physical Education, Design Technologies and Geography Curriculum.	Nomcast episodes are publicly available for viewing and/or listening on each episode page, Phenomenom YouTube channel and major podcast platforms with hosting on the Nomcast channel via Omny. Views, listens and analytics to be tracked using the YouTube Creator Studio and Omny platform. Part 1: https://phenomenom.com.au/topic/ecologic/nomcast-episode-12-onions-special-part-1-soil-health/ Growing Australia: https://phenomenom.com.au/wp-content/uploads/Ph-Growing-Australia.pdf Part 2: https://phenomenom.com.au/topic/super-humans/nomcast-episode-13-onions-special-part-2-gut-health/ Life in the Gut: https://phenomenom.com.au/wp-content/uploads/Ph-Life-in-the-Gut.pdf Part 3: https://phenomenom.com.au/topic/super-humans/nomcast-episode-14-onions-special-part-3-umami/ Extra Sensory: https://phenomenom.com.au/wp-content/uploads/Ph-Extra-Sensory.pdf
Re-surveying attendees from the Phenomenom launch in Sydney in 2019 (MT19000)	Teacher attendees were interviewed to determine how frequently they had been using and recommending Phenomenom resources and to increase industry understanding of the impact from launch event activities.	Refer to Appendix 1. Phenomenom launch report (MT19000).



Image 3. Nomcast episode page from website



Image 4. PDF resource from website

Outcomes

Table 2. Outcome summary

Outcome	Alignment to fund outcome, strategy and KPI	Description	Evidence
Students have an increased awareness and exposure to onions in Australian classrooms	Onions SIP Outcome 1: Demand. To show the versatility of onions to increase consumption	Learn about the positive characteristics, nutritional benefits, and versatility of onions to increase consumption	Outcome based on the results of past research into educational materials that use the same format (ST19041).
Students have an increased openness to consuming Australian onions	Onions SIP Outcome 1: Demand. To show the versatility of onions to increase consumption	Stimulate student-led discussion with teachers, peers and caregivers about onions and fostering a link and openness to consumption.	Past research: An increase from 26% to 75% of students being excited to try onions in the future after exposure to the resource (Appendix 1, ST19041 Final report).
Teachers have greater access to curriculum aligned resources promoting Australian onions across primary and secondary year levels	Onions SIP Outcome 1: Demand. To show the versatility of onions to increase consumption	The new onion-specific materials created are freely available to teachers online via the Phenomenom website.	Past research: 76% of teachers indicated that they would be extremely likely to recommend Nomcast as a teacher resource to their colleagues (Appendix 1, ST19041 Final report).
Parents and caregivers a positive change in behaviour and intentions around purchasing and consuming Australian onions.	Onions SIP Outcome 1: Demand. To show the versatility of onions to increase consumption	Phenomenom has previously been shown to be an effective way to stimulate discussion about Australian horticulture products in the home environment, especially because it is designed to be listened to by children with their caregivers. Therefore the new materials could foster a shared willingness to try foods featuring onions.	Past research: after watching a single Phenomenom episode, parents were more likely to purchase vegetables featuring in the episode (refer to Appendix 4, VG16018 Final report).
For industry, further integration of Australian onions into classrooms and a fostered link to consumption at home for families.	Onions SIP Outcome 1: Demand. To show the versatility of onions to increase consumption	Phenomenom resources are seen as highly useful and trusted curriculum materials for teachers that lessen the load on a crowded curriculum. The high likelihood of usage in the classroom ensures that the value of the materials extends into the home environment to increase the frequency of Australian onions in meals.	Past research: Benefit-cost ratio of 3.30 (MT18011) and contribution to a 5% increase in total volume of onions sold in 2022.
For industry, a greater understanding of the impact of a launch event on resource uptake and on	Onions SIP Outcome 1: Demand. To show the versatility of onions to	The Phenomenom launch event in 2019 was well-received and prompted increased usage among some	Appendix 1. Phenomenom launch report (MT19000).

onion consumption.	increase consumption	attendees, although low attendance rates among teachers would diminish effectiveness.	
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Monitoring and evaluation

This project adopts a similar program logic and methodology, found to be effective in past Phenomenom projects, to deliver the intended outcomes (Figure 1).

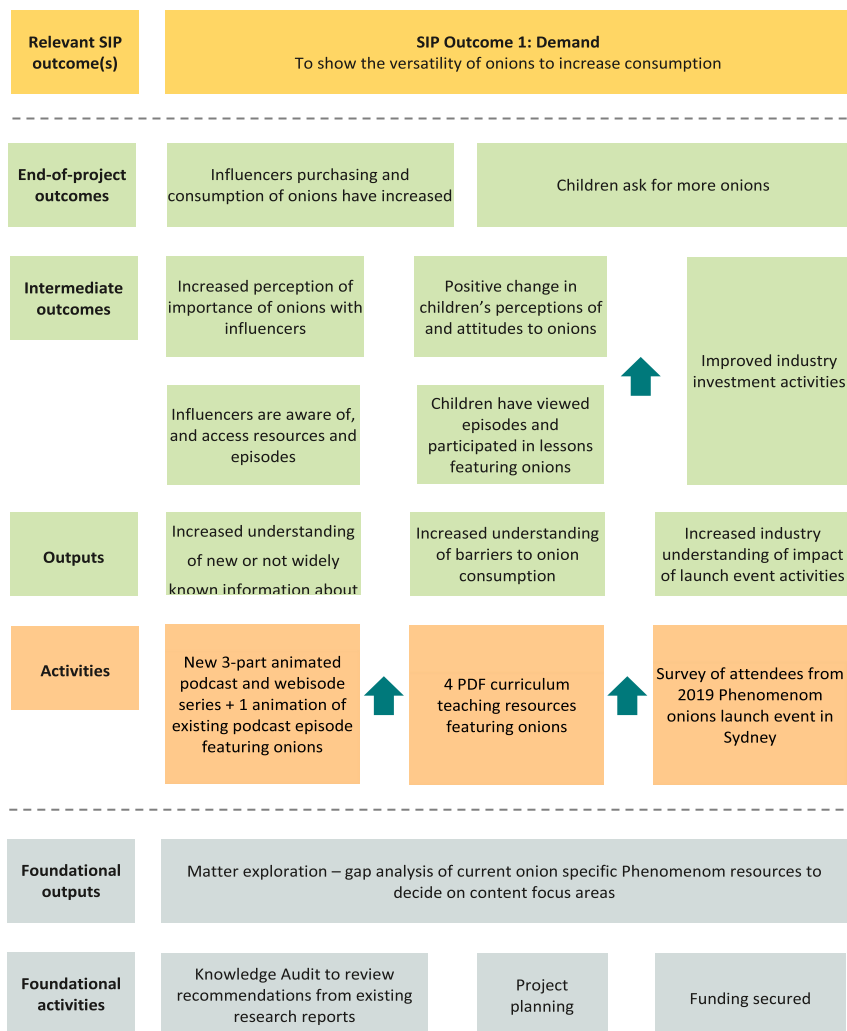


Figure 1: Program logic

Key measures of project performance are detailed in Table 3, however at the time of writing, the key outputs have not been launched publicly and it is therefore difficult to measure project performance. It is suggested that the M&E component of the report, together with any recommendations be updated after the materials have been launched. The launch is scheduled to take place in mid-April 2022.

Table 3. Key Evaluation Questions

Key Evaluation Question	Project performance	Continuous improvement opportunities
Effectiveness To what extent has the project achieved its expected outcomes?	The educational outputs created for the project fulfil the intended topic areas (see below), format and executional considerations that have been shown to be effective in past Phenomenom projects. Furthermore, interviews with attendees at the Phenomenom Sydney launch in 2019 helps to better understand the impact of a physical launch on attendees and whether the benefits outweigh the costs associated.	Ongoing lobbying to ABC Education, the most trusted education resource platform in Australia, to have the materials available on their channels. Agreements between Hort Innovation and ABC Education are in place for the resources to be available, but technical issues plaguing the ABC platform have delayed launch.
Effectiveness To what extent has the project improved knowledge and awareness of the role of onions in a healthy diet?	The topic areas covered by the new episodes and PDF curriculum resources are explicitly linked to the role of onions in a healthy diet and highlight emerging research on the soil health, gut health and umami and satiety.	Follow-up research to gain further insights into how the refinement to content focus areas and execution have impacted resource uptake, attitudes and behaviour of the intended audiences.
Effectiveness To what extent have the project outputs been viewed and downloaded by intended beneficiaries?	Review after release of the materials in mid-April 2022 to provide accurate monitoring data. Monitoring data will be obtained from website and hosting platform analytics and compared to past projects and comparable digital education resources in Australia.	Review website analytics including views, listens and resource downloads in 6-12 months.
Legacy How sustainable are the outcomes of the project likely to be?	The new Nomcast series positions onions as a key base ingredient with benefits to both flavour and health. That narrative, when reinforced in other scenarios in their day-to-day lives, will likely ensure that the sustainability of demand for onion consumption will remain high.	Follow-up research to measure attitudes and behaviour towards onions prior to, immediately following and 4-6 weeks after exposure to the resource.
Legacy What is the expected lifetime of the resources and their predicted usage?	Digital education resources enjoy a long life ranging from 10-20 years. Primary and secondary teachers tend to recycle high quality resources with each new cohort (refer to Appendix 3, VG16018 Final report) and word-of-mouth the most powerful and effective method of increasing usage. Based on Phenomenom website analytics, the resources will enjoy steady growth each year as more teachers are exposed to the materials.	The curriculum codes for the entire suite of Phenomenom PDF resources will need to be reviewed and potentially updated following the next revision to the Australian Curriculum in 2022.

Recommendations

Findings from past research has shown Phenomenom to be an effective, widely adopted program that will help to positively shift perceptions of vegetables among children aged 8-12.

With the program enjoying a dedicated following of engaged teachers and imminently expanding its reach and influence by featuring on ABC Education (the most trusted education platform in Australia), the following extension activities are recommended to maximise grower ROI:

- Facilitate accessibility of the resources created for this project on ABC Education to add to those created previously.
- Professional development (PD) workshops targeting pre-service teachers and casual relief teachers (CRT). PD workshops have been recommended in past Phenomenom projects (Appendix 2, ST19041 Final report).
- Launch events are useful for stimulating interest and prompting usage in new materials for those attending, however only if it can be proven there is strong enough demand to attend or access a recording of the event. Setting up an Expression Of Interest (EOI) form on the Phenomenom website is recommended.
- Continuing to add Nomcast resource packs, similar in style and format to the project outputs through funding from other Hort Innovation funds, to address the opportunity for more food and nutrition resources (nine in ten teachers surveyed as part of VG16018 want more food and nutrition resources).

Other recommendations include:

- Future research to better understand any barriers to teacher uptake of Phenomenom resources.
- The curriculum codes for the entire suite of Phenomenom PDF resources will need to be reviewed and potentially updated following the next revision to the Australian Curriculum to be completed in 2022.

Refereed scientific publications

None to report

References

Australian Bureau of Statistics National Health Survey 2017-2018

<http://www.abs.gov.au/ausstats/abs@.nsf/mf/4364.0.55.001?OpenDocument>

VG13090: A Strategy to Address Consumption of Vegetables in Children, CSIRO.

VG16018: Educational opportunities around the perception of, and aversion to, vegetables through digital media, Edible Adventures Productions.

MT18015: Phenomenom extension project, Edible Adventures Productions.

MT18011: Full impact assessment report: Educational opportunities around the perceptions and aversions to vegetables through digital media (VG16018), AgEconPlus.

ST19041: Phenomenom – The Good Mood Food Module, Edible Adventures Productions.

Intellectual property

The Hort Innovation Intellectual Property Register has been completed.

The IP register is confidential, due to the details of agreements with guests involved in the production of episodes. Please refer to Appendix 2.

Acknowledgements

This project would not be possible without the support and expertise of Hort Innovation staff.

EAP would like to thank guest Courtney Glass, who kindly agreed to act as voiceover artist for each episode.

Appendices

Appendix 1. VN20008 Phenomenom launch report (MT19000)

Appendix 2. VN20008 Hort Innovation Intellectual Property register (confidential)

PHENOMENOM & NOMCAST

REPORT ON LAUNCH EVENT, JULY 2019

Prepared by Beverley Laing for Edible Adventures Productions, November 2021

BACKGROUND

The Phenomenom launch was held in July 2019 at Palace Central, Sydney.

The event included creator Alice Zaslavsky's introductory remarks and official launch of Phenomenom web program and Nomcast podcast, a viewing of the Phenomenom webisode, *Eddie Woo and the Fun Guys (who are really quite serious)*, a panel discussion about food education and a social event.

This report is the result of surveying attendees of the launch event in November 2021 (27 months after the event) to see what they thought of Phenomenom and if the funds, Onions and Mushrooms, were memorable to them. It was also an opportunity to get teacher and dietician feedback on Phenomenom and Nomcast. Questions, contacts and survey details are in the Appendix.

RESPONSES TO THE LAUNCH EVENT (Q1-3)

100% of the interviewees remembered the event. In one way or another, all of them named onions and mushrooms in their comments. One respondent said she went home and looked for recipes to use mushrooms as it had inspired her. Most of them mentioned the produce display.

- It was such just a treat to be able to attend an event targeted at teachers, with really high-quality resources, to be able to meet a range of people involved in the production, to have a bit of a sneak peek, and the produce display, and the take-home produce, was just the icing on the cake, really. Everything about it was fantastic.*
- I remember that it was really engaging, I remember that it was a topic that we haven't talked about much or we don't teach much so it was really nice to learn something new and just to explore it.*
- I remember lots of onions and lots of mushrooms Very well decorated and so beautifully arranged. The venue was in Sydney in a cinema complex, and the decorated foyer left a real impression. From a branding point of view I remember that. Mingling initially, Alice Zaslavsky and Eddie Woo and a nutritionist, Kelly, speaking on stage. I remember the video we watched being about mathematics, as well as pies and circles It was an event that showed off the potential of the resources and got me really excited about their potential application.*
- I could just see that it was really just looking at how can we bring people with strengths in and offer a really good, high quality program and that's certainly what I saw.*

RESPONSE TO, AND USE OF, THE PHENOMENOM RESOURCES (Q4-6)

Teachers responded to the quality of the resources including videos, lessons and podcast, telling us how they use them:

Appendix 1. Phenomenom launch report (MT19000)

- *I usually use it in ten minutes of downtime. They request to watch an episode as a reward for something. The kids I teach have limited experience of life, but it amazes me how much they love it – even when so much of the language goes over their heads. It's clearly super-engaging for them, they choose the episodes, someone will say 'Can we have the one with the carrot?' – because they're visual.*
- *I love the videos. I love the diversity of children involved. I love the Indigenous perspectives that are embedded because there's a lot of resources around that have nothing and the stuff that's been incorporated here is really meaningful and really engaging and, you know, it's Indigenous people telling their stories which we know is so important.*
- *The lesson plans are fantastic. I've used them a lot. I use them all the time, though remote learning made that harder than before. I was working on site during lockdown with vulnerable students. I used the Ph videos and lessons a lot then. They produced some super work Some of the writing and responses were great. Really great.*

One or two respondents were not teachers:

- *I've gone back to the website periodically, usually to recommend it to people – teachers, school principals – and recommended it as a food education resource in my role as Communications Manager of Soils For Life as an example of holistic food education.*

The launch was in the middle of the 2019 school year which was to be the last 'ordinary' school year up to and including the present. This very clearly had an impact on how and when teachers use Phenomenom – several respondents citing remote learning and a lack of access to students in-person, as the greatest barriers to use (and to food education, generally).

- *I certainly haven't used the mushroom or onions [the Eddie Woo webisode] because I haven't had an opportunity to teach the concept of Pi, which would only would have been an extension for Year 6, and I'm not a high school teacher. So that really only comes down to, not that I don't want to use it, but simply that I haven't had the classroom opportunity to use it, but I certainly intend to.*
- *I haven't used the Nomcasts in the classroom, so remembering that I'm actually a casual teacher, and last year I was still doing the final year of my studies, so I certainly have other opportunities to use a lot of the lesson plans. I made sure that I incorporated that well into my university assignments as well when we had to come up with lessons, but I've certainly used them in the classroom on Practicum. ... I'm about to do one on taste and the senses tomorrow so I've grabbed a couple of elements on that lesson to use. I have listened to the podcasts myself, and I think they're great, and I can see, when I have my own class, which I am getting next year, I've been fast-tracked to a permanent appointment, so there's going to be lots of opportunities to put really my stamp on things.*
- *It's definitely in the back of my mind and I've thought about it but I haven't had the opportunity you know, because of lockdown – now that was a shermozzle.*

EFFECT OF PHENOMENOM IN CHANGING APPROACHES TO FOOD EDUCATION

All of the respondents were already enthusiastic about food education. Most already had a high level of expertise but said that Phenomenom gave them renewed enthusiasm and was a talking point with their colleagues and community:

- *For those of us who are already passionate about food education, and I count myself as one of those, and, you know, I'm just so excited that there's a resource that's about vegetables, and I feel almost evangelical in my excitement about it ...*
- *It's definitely influenced the way that I'm thinking about further projects and thinking about what resources are already available. Not reinventing the wheel but trying to make current resources, such*

Appendix 1. Phenomenom launch report (MT19000)

- as the Phenomenom resources, more ... make schools or community more aware of the fact that, extra promotion for them, because they are so accessible. ... I think it's a fantastic area to be funding.*
- *One of the messages in Ph is that food is in everything and connected to everything, and that is definitely one of the messages I would reinforce in my writing about food.*
 - *I speak about it differently. I've noticed in class, so it's not like 'this is a healthy food, this is not'. It's more that exploratory language, the colours and the textures – not to judge their lunchboxes in the same way... That's just for me personally.*
 - *I just wish schools could know more about it. It is a big shift in thinking, but the fact that it is all subject brought together and the thinking processes ... I just wish people knew about it more.*

An unexpected theme that emerged was the expectation that Phenomenom and Nomcast, and their related resources, were applicable to clinical and community food conversations. This was evidenced in the interviews with allied health / nutrition professionals.

- *I think having that insight into what allied health (basically teaching roles about health for parents or community), and the more that we can link in with school resources or that curriculum mindset, can really help guide us.*
- *[I] found that the Stephanie Alexander Kitchen Garden programs are absolutely fantastic and really well set up for schools, but can be a little bit difficult sometimes in taking that into, say, a community setting for kids, or for communities, that isn't linked directly to a school, or a school premises. ... [I] found that the Phenomenom Resources are also so well set up to be able to implement in community settings, in community gardens, in outside projects ...*

One participant values Phenomenom highly and feels it should be pitched to health professionals as a food education resource, because her profession traditionally has a clinical way of speaking to clients about food:

- *My perspective is I'm a public health nutritionist and I'm a speech pathology student who wants to work in paediatric feeding and I think these resources can also work for us in a clinical sense without it making food this very clinical, this medicalised model. It's just about engaging with the senses at the most basic level and is about education in a really positive way. It's definitely, I think, a space that could work for you, actually moving into, is health care professionals. So working in with dieticians, working with speech pathologists, working with occupational therapists and other people who work in the food space who want to make a positive difference, but they actually don't know that they don't have the tools, and they don't have the knowledge about the positive food education model, and the sensory model. Because we draw on this stuff too – or should be drawing on this stuff as well.*

We received a written response after an interview with a participant, in which one of the interviewees wanted to expand on this further and to thank Alice and the team for funding and producing these resources. The email is reproduced here in full:

The other aspect I want to feed back that I don't think I reflected in our chat is how important programs like this are for increasing kids (and their communities) connection to food from a cultural, scientific and sensory experience as well as increasing awareness of the nutrition and environmental aspects.

As I mentioned I am a clinical dietitian in Rural NSW and have also recently published a paper on the environmental impact of Australia and New Zealand's current food consumption <https://www.readcube.com/articles/10.1007/s13668-021-00374-0>.

One of the key findings from this study is highlighting the need to focus on reducing discretionary food intake for not only nutrition but environmental outcomes. I have worked in clinic rooms discussing this with patients and families and I truly believe that the garden and kitchen are the best places to have these fun, exciting conversations and allows both clinician and patient to learn from each other.

Appendix 1. Phenomenom launch report (MT19000)

I have coordinated to work part time in my clinical roles next year to expand my large home vege garden @dirtyfooddietitian into an evolving therapy garden and workshop space for kids and community. I have been utilising Alice's teachers guide and lesson plans in my thoughts and planning. I hope to utilise these lesson plans in my garden workshops and if all is successful increase these programs within the schools or at a community space.

Thanks to Alice and the mushroom and onion funders for creating such beautiful and accessible resources to be used in such diverse and exciting places

APPENDIX

QUESTIONS REGARDING PHENOMENOM LAUNCH

1. Do you remember the Phenomenom launch held in Sydney at Palace Central on July 1st, 2019? What aspects of the launch do you recall? (Ph video viewing, panel discussion and social event)
2. What inspired you to attend the launch?
3. Was that interest satisfied by what you saw and learned at the event?
 - a. If yes, how?
4. Have you used or interacted with the Phenomenom videos, Nomcast or website since the launch?
5. In what ways did this interaction occur?
6. Did you use any of the onions, or the mushrooms material with young people in the age range of 8-12?
 - a. If yes, how did the interaction occur?
 - b. If yes, can you share any reactions they had?
7. Do you think Phenomenom or any of the messages in the program and resources have affected the way you teach about food?
 - a. If yes, how?