


TOOHEY FOREST ENVIRONMENTAL EDUCATION CENTRE STRATEGIC PLAN 2018 - 2021

 <div style="margin-left: 20px;"> <h1 style="color: #8B4513; font-family: sans-serif;">Toohey Forest Environmental Education Centre</h1> </div>	<p>Centre Vision: <i>Inspiring Science Beyond the Classroom</i></p> <p>Mission Statement: <i>Toohey Forest EEC is committed to the development of students as responsible and informed citizens through scientific literacy. Improved scientific literacy enables informed decision-making about local, national and global issues. Scientifically literate citizens:</i></p> <ul style="list-style-type: none"> <i>Are interested in the world around them</i> <i>Are able to identify questions, investigate and draw evidence-based conclusions</i> <i>Reflect critically on information, data or the claims made by others</i> <i>Make informed personal decisions and choices</i> <p>Our Purpose: <i>Toohey Forest EEC provides students with engaging learning opportunities and experiences deeply immersed within the natural and built environments. Students experience connections within the various fields of STEM (Science, Technology, Engineering and Maths), including ecology, sustainability, environmental science, robotics, coding and forensic science.</i></p> <p><i>To ensure authenticity to real world science, Toohey Forest EEC partners with a variety of external agencies to provide learning opportunities relevant to school-aged students, undergraduate University students and teachers.</i></p>
--	--

APPROVAL/ENDORSEMENT PROCESS

A review of where Toohey Forest Environmental Education Centre sits within the education sector, and how its services are received by client schools, was conducted and provides a meaningful statement of the centre's achievements and its future direction. The subsequent Strategic Plan 2018 - 2021 details the strategic direction to address (i) systemic requirements (ii) the anticipated needs of current and future client schools (iii) the operating environment and limitations of the centre itself, and is therefore endorsed / approved.



Darren Shepherd
PRINCIPAL
01/02/2019



Joseba Larrazabel
ASSISTANT REGIONAL DIRECTOR (METROPOLITAN REGION)
24/05/2019

TABLE OF CONTENTS

SECTION 1	PAGE
Purpose	3
SECTION 2	
The Centre Context	4
SECTION 3	
The Centre Review	5
SECTION 4	
Improvement Priorities	
Curriculum and Pedagogy	7
Environment and Facilities.....	8
Partnerships and Collaboration	9
SECTION 5	
Appendices.....	10

SECTION 1

PURPOSE

Purpose

The School Planning, Reviewing and Reporting Cycle (SPRRC) outlines the requirements for Queensland state schools to implement state and national reforms, and to meet the objective of the Department of Education (DoE) Strategic Plan to drive improved learning outcomes for all students.

The guiding principles of SPRRC are:

- Collaborative engagement in the school improvement planning process
- Being consultative and data-informed in reviewing performance
- Accountability for outcomes

All state schools develop a four-year plan (School Strategic Plan) to implement the strategic direction of the Department. The [School Strategic Plan](#) has a four-year outlook, which informs the [Annual Improvement Plans](#) (AIP). The School Strategic Plan is reviewed and updated annually to maintain currency and alignment. Every four years, schools review their plan in order to maintain an informed long-term strategic focus that reflects the priorities, initiatives and performance measures of the DoE Strategic Plan. The [Every Student Succeeding State Schools Strategy 2019-2023](#) is the improvement agenda that identifies key strategies to lift performance across the system to ensure every student succeeds.

Alignment

The [Department of Education's Strategic Plan 2016-2020](#) highlights the following broad focus area:

"Preparing Queenslanders with the knowledge, skills and confidence to participate successfully in the economy and broader community"

At a 'grass roots' level, the centre's strategic plan has its foundations in the following beliefs:

- *"If better is possible, good is not enough"* (Benjamin Franklin)
- *"Small improvements in a number of different aspects of what we do can have a huge impact to the overall performance of the team"* (Sir Dave Brailsford). i.e. the power of small gains
- *"You can't be everything to everyone"* (anon) i.e. it could be argued that the best decisions are often what we choose not to get involved in and focusing on the centre's strengths, as opposed to addressing perceived or actual weaknesses, has the potential to yield greater improvements to organisational performance

All of these statements are an acknowledgement that recent external data and internal appraisal confirms that the centre is providing both a valued service, and to large numbers of students. Consequently, many of the strategies outlined in this strategic plan fit into the 'micro' level of change. It is important to note that this strategic plan has not been formulated with a growth mindset, rather an examination of what is the best use of the centre's resources, with particular consideration of the unique partnership with Griffith University.

The Centre Strategic Plan

The 2018 – 2021 Strategic Plan is a succinct four-year outlook document detailing:

- The vision for the centre, describing the aspirations of staff, client schools and major partners
- The centre's strategic direction, including improvement priorities, strategies, goals and performance measures and targets
- Priorities and strategies in response to information collected.

SECTION 2

THE CENTRE CONTEXT

Toohey Forest Environmental Education Centre (TFEEC) is a Department of Education (DoE) facility located in the Nathan Campus of Griffith University. First opened in 2000, the uniqueness of TFEEC is clearly evident as it is the only permanent DoE facility physically located in a tertiary institution. TFEEC staff and the majority of its service delivery occurs in or in the immediate surrounds of the [EcoCentre](#), a purpose built education and community engagement facility. The EcoCentre building incorporates a number of eco-design principles which form part of select student programs.

TFEEC's stated purpose is to provide students with engaging learning opportunities and experiences deeply immersed within the natural and built environments. Students experience connections within the various fields of STEM (Science, Technology, Engineering and Mathematics), including ecology, sustainability, environmental science, robotics, coding and forensic science. An essential component of all programs and activities is opportunities for student centred, active learning (i.e. 'doing'), rather than more traditional didactic or teacher centric methods of instruction.

In addition to school-aged student programs, TFEEC partners with select Griffith University Science and Education faculty staff to co-deliver programs for years 9-12 secondary students, undergraduate tertiary students and teacher professional learning on an 'as needed' basis.

Geographically, five other environmental education centres are located in the Metropolitan Education Region: Pullenvale, Bunyaville, Nudgee Beach, Brisbane Urban and Moreton Bay EEC's. Jacobs Well EEC is located approximately 40 kilometres to the south. In addition to these DoE facilities, there are a number of other organisations that provide specialist support for school-aged students in the area including:

- Queensland Museum
- CSIRO
- Brisbane City Council
- University of Queensland, QUT and Griffith University
- Private providers (e.g. Street Science)

Whilst on the surface there would appear to be an issue of oversupply of services that schools can access, it needs to be acknowledged that the Metropolitan Region alone constitutes some 25%+ of the school-aged students in Queensland. It is also a rapidly growing region, with 3 new high schools planned for the Brisbane metropolitan region during the next 2 years.

Annual student visitation and instructional hours data are key measures of a centre's quantitative output. Since 2012, both of these measures have experienced significant increases without an appreciable change in teacher staffing. Of note in 2016 and 2017 is the plateau in these measures, indicating that the centre may have reached a sustainable level in the current face-to-face service delivery mode. The cost of employing additional staff (both teaching and non-teaching), and the physical limitations of the EcoCentre itself, are seen as impediments to further increases in student visitation and / or instructional hours.

Approximately 75% of the centre's clients are state schools, with the remainder being private schools. Of the students that visit, almost a third are early phase (i.e. prep to year 3), with middle primary (i.e. years 3-6) and lower secondary (i.e. years 7-9) students collectively making up half of the total student visitation. Using 2017 data, upper secondary students (years 10-12) constitute 15% of the students who receive instructional support from the centre.

The large numbers of schools accessing the centre's services in recent years has prompted a reassessment of how the centre provides support for existing and potential new client schools. In part, this reassessment led to the foundation of the *STEM Horizons for High Achievers* program in 2015, along with SPARQ-ed, Brisbane Urban and Moreton Bay EEC's. The focus on STEM (Science, Technology, Engineering and Mathematics) was due to the increasing prominence of STEM skills in the workforce, combined with a decline in secondary student participation in STEM subjects. The cornerstone of the STEM Horizons program is to:

- a) Engage students in activities utilising inquiry-based and experiential learning strategies
- b) Provide access to specialist personnel, equipment and facilities not readily available in schools
- c) Increase awareness of STEM tertiary education and career options.

One of the notable differences between *STEM Horizons for High Achievers* and the centre's traditional service delivery for schools is that it targets a specific student clientele (i.e. high achieving Science and Mathematics students) in select year levels (i.e. years 6, 7, 9). Participating schools can only register a maximum of three students, which is in contrast to the centre's traditional service delivery which is more inclusive and includes whole classes or entire year cohorts.

Between 2015 and 2018, over 1500 students engaged in the *STEM Horizons for High Achievers* program with extremely positive outcomes including:

- 100% of students highlighted they experienced opportunities that were not available in schools and 97% agreed their STEM knowledge was extended
- 100% of teachers described engaging with experts as invaluable for students, with 93% listing access to specialist facilities and equipment as crucial
- 100% of parents would encourage their students future involvement and 98% agreed STEM Horizons was a valuable experience

The success of the program resulted in recognition as the winner of the [2017 Showcase Awards for Excellence in Industry Partnerships](#).

SECTION 3

THE CENTRE REVIEW

The following activities were undertaken in order to provide a determination of where Toohey Forest Environmental Education Centre is currently placed in the educational landscape.

1. DOCUMENT SCAN INCLUDING:

- Examination of existing educational research pertaining to (i) student learning / effective pedagogy (ii) STEM education, including trends in current studies and future employment (iii) student achievement in science and mathematics (e.g. PISA, TIMSS). The findings from research continue to inform current and future decision-making in an effort to implement evidence-based decision making at all levels within the organisation.
- Review of Department of DoE documentation including (i) Strategic Plan 2017-2021 (ii) A Strategy for STEM in Queensland State Schools

2. REVIEW OF EXISTING CENTRE DATA INCLUDING:

- 2016 Headline Indicator Report and 2017 Interim Headline Indicator Report
- 2016 and 2017 Visitation and Feedback Summaries [REFER APPENDIX 1 & 2]
- 2015 School Improvement Unit Report (Executive Summary) [REFER APPENDIX 3]

3. INTERNAL STRENGTHS, WEAKNESSES, OPPORTUNITIES AND THREATS (SWOT) ANALYSIS:

- Conducted in Semester 2 2017, all staff (including some former staff members) were independently asked to complete a SWOT analysis for the centre. Staff then shared their thoughts and ideas with the collective group in a face-to-face meeting. The summary of the SWOT analysis is available in Appendix 5

4. CONSULTATION WITH FORMER SUPERVISOR / SIU AUDITOR:

- During Semester 2 2017, a two hour face-to-face meeting was organised with Mr Alan Sampson at the Griffith University EcoCentre. While Alan is currently deployed with DoE's School Improvement Unit, he was previously responsible for the state-wide supervision of all 25 outdoor and environmental education centres. As such, Alan was uniquely placed to critique the centre's existing data, as well as possibilities for the future of the centre in light of the changing educational environment.

5. CONSULTATION WITH SELECT GRIFFITH UNIVERSITY PERSONNEL:

- During Semester 2 2017, an email [REFER APPENDIX 6] was distributed to select Griffith University personnel on the grounds that the University is the centre's major partner. Recipients of the email were chosen according to their position, as well as whether they had a previous association with the centre in some capacity. While some recipients did not respond despite receiving reminders, the collective results did provide enough information to influence the centre's future direction.

6. CONSULTATION WITH SELECT CLIENT SCHOOL CONTACTS:

- During Term 3 2017, an email [REFER APPENDIX 7] was distributed to select client school contacts in order to seek their feedback on (i) current service delivery (ii) potential future needs of their school. Recipients of the email were selected by all teaching staff with the aim of providing balanced input from primary, secondary, public and private school respondents. While some recipients did not respond despite receiving reminders, the collective results did provide enough information to influence the centre's future direction.

7. CONSULTATION WITH SELECT PEERS IN OUTDOOR AND ENVIRONMENTAL EDUCATION CENTRES:

- During Term 4 2017, a 3 hour face-to-face meeting was organised with select peers from outdoor and environmental education centres (O&EEC's) including (i) Sue Gibson (current sector chair) (ii) Mark Cridland (previous sector chair + Principal of 3 centres previously + TBS occupies someone else's physical site) (iii) Sean Mead (previous TFEEC staff member + now Principal Columboola EEC) (iv) Mel Davis / Keith Enchelmaier (BUEEC Principals who also occupies someone else's physical site + fellow Metro centre) (v) Mark Granrose (former acting TFEEC Principal + previous STEM Horizons coordinator + current school currency as HOD Whites Hill SC) (vi) Myself (TFEEC Principal)
- The meeting was designed to provide a forum for centre Principals, whose context is very different to that of a mainstream schooling administrator, to come together to discuss their own strategic planning experiences, including their views on the current and possible future operating environment. The collective findings of the meeting are summarised in Appendix 8.

Curriculum and Pedagogy

Success Indicators and Strategies	2018	2019	2020	2021
1. Increase the proportion of year 9-12 students participating in centre programs <ul style="list-style-type: none"> Refine existing and develop new programs to compliment the new senior biology and geography syllabuses Expand the <i>STEM Horizons for High Achievers</i> program to include years 10 and 11 Collaborating with select GU academic staff to provide students with exposure to specialist knowledge, skills and facilities 	✓	✓	✓	
2. Increase the level of support provided to visiting teachers and students <ul style="list-style-type: none"> Develop pre and / or post excursion resources for select programs Update the centre website to include digital resources to support classroom teachers Mandate pre-visit sessions to compliment senior Biology programs 	✓	✓	✓	✓
3. Improved focus on 'how we teach' <ul style="list-style-type: none"> Review the centre's framework for effective teaching Develop and implement a new teacher peer review process considerate of our teaching context All teachers to participate in pedagogy focused professional learning opportunities 	✓	✓	✓	✓
4. Explore best practice in environmental science education <ul style="list-style-type: none"> Provide centre teaching staff with first hand exposure to teachers and / or leaders who have demonstrated proficiency in the delivery of science and / or environmental educational programs Continue to host teachers and / or educators from other science or environmental education facilities to promote a culture of sharing 	✓	✓	✓	✓

<p>5. Continue to convert existing resources into interactive, digital formats</p> <ul style="list-style-type: none"> • Upgrade the Plants of Toohey Forest booklet to an iBook version incorporating a filter for features • Upgrade the Aquatic Macroinvertebrate ID App to include new specimens, vignettes etc. • Develop a digital resource to compliment the 'EcoCentre Discovery Tour' inclusion in the centre website • Upgrade the Green Energy Lab activities to a digital format that incorporates diagrams, vignettes, multi-choice questions etc. 	<div>✓</div> <div>✓</div> <div>✓</div> <div>✓</div> <div>✓</div> <div>✓</div> <div>✓</div> <div>✓</div>
---	---

Environment and Facilities

Success Indicators and Strategies	2018	2019	2020	2021
<p>6. Continue to develop the EcoCentre internals and surrounds to support improved student engagement</p> <ul style="list-style-type: none"> • Develop and implement an 'EcoCentre Discovery Tour' focused predominantly on flora and fauna • Ensure that all displays include supporting educational material to assist self-paced student learning 	<div>✓</div> <div>✓</div>	<div>✓</div> <div>✓</div>		
<p>7. Refit of student areas to maintain high service standards</p> <ul style="list-style-type: none"> • Replacement of existing Canopy Room furniture to cater for increased student numbers and a collaborative approach to learning • Bandwidth and wireless upgrade in both Canopy and Understorey Rooms to accommodate connectivity with increased numbers of portable devices 	<div>✓</div>	<div>✓</div> <div>✓</div>	<div>✓</div>	
<p>8. Review storage space to accommodate new and existing equipment</p> <ul style="list-style-type: none"> • Development of new storage facility adjacent to Understorey room to accommodate program development and requirement for new equipment 	<div>✓</div>	<div>✓</div>		

Partnerships and Collaboration

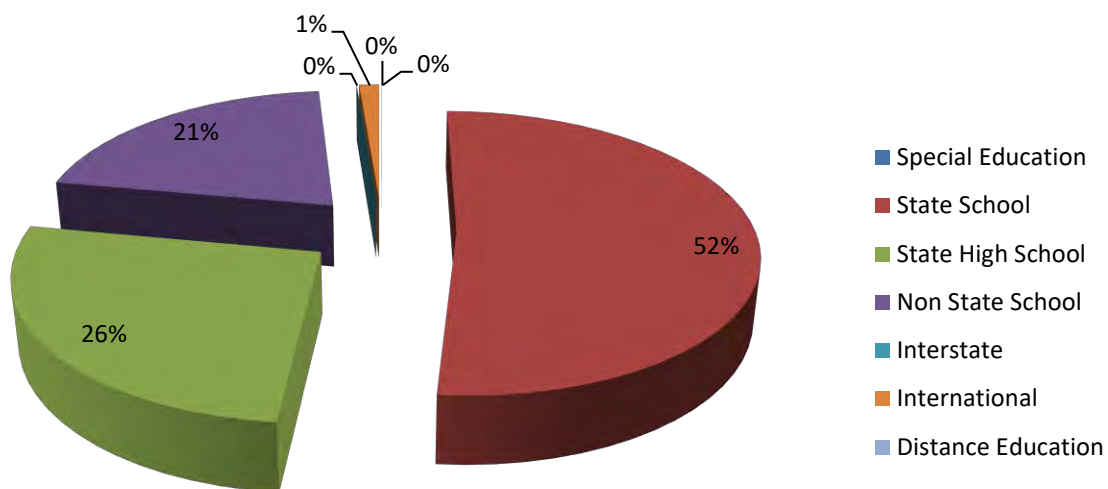
Success Indicators and Strategies	2018	2019	2020	2021
11. Continue to develop collaborative opportunities with Griffith University: (i) Outreach staff <ul style="list-style-type: none"> Collaborate on the development of a digital resource to support the 'EcoCentre Discovery Tour' Shared program delivery for international and select entry school-aged student programs (ii) Science faculty academic staff / post-graduate students <ul style="list-style-type: none"> Co-develop and implement select Science programs / activities to select secondary students Host Work Integrated Learning (WIL) and post graduate students involved in relevant STEM fields (iii) Education faculty staff <ul style="list-style-type: none"> Host undergraduate education students from both Gold Coast and Nathan Campuses Explore opportunities for centre inclusion in relevant educational research 	✓ ✓	✓ ✓	✓ ✓	✓ ✓
12. Explore opportunities to collaborate with select science-related organisations <ul style="list-style-type: none"> Partner with Queensland Health to develop and implement the Zika Mozzie Seeker for Schools program Partner with select DoE environmental education centres to co-develop and deliver new programs Partner with QIMR and SPARQ-ed to co-deliver and / or promote new science programs 	✓	✓	✓ ✓	✓ ✓

SECTION 5**APPENDICES**

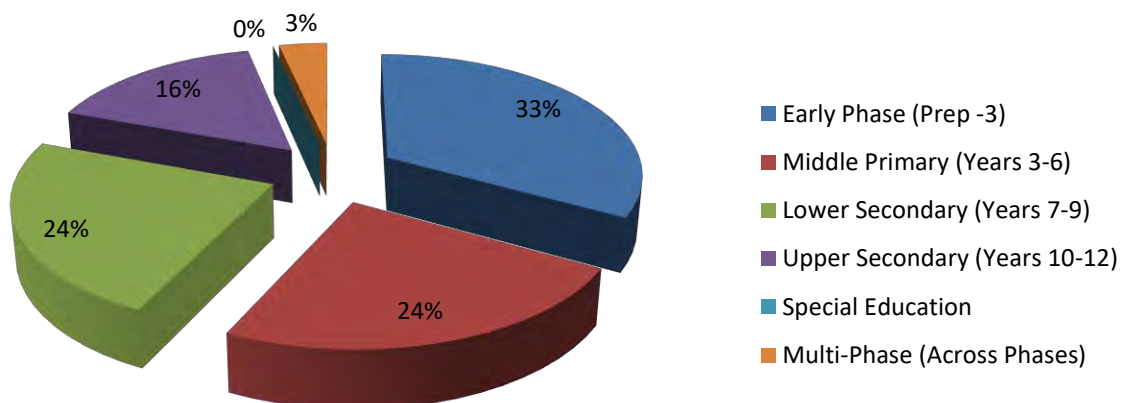
1. 2016 Visitation Summary
2. 2017 Visitation Summary
3. 2015 School Improvement Report (Executive Summary)
4. Internal SWOT Analysis Summary
5. Email to select Griffith University personnel
6. Email to select client school contacts
7. Peer Meeting Summary

2016 Visitation and Feedback Summary

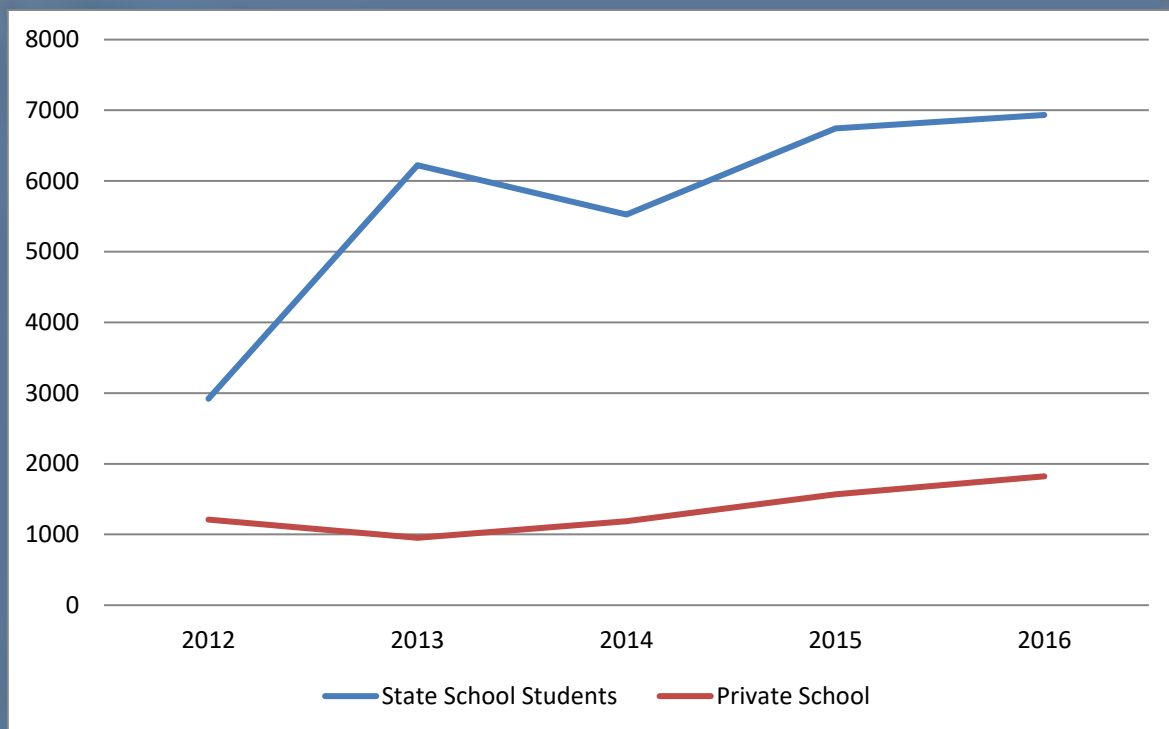
School Type



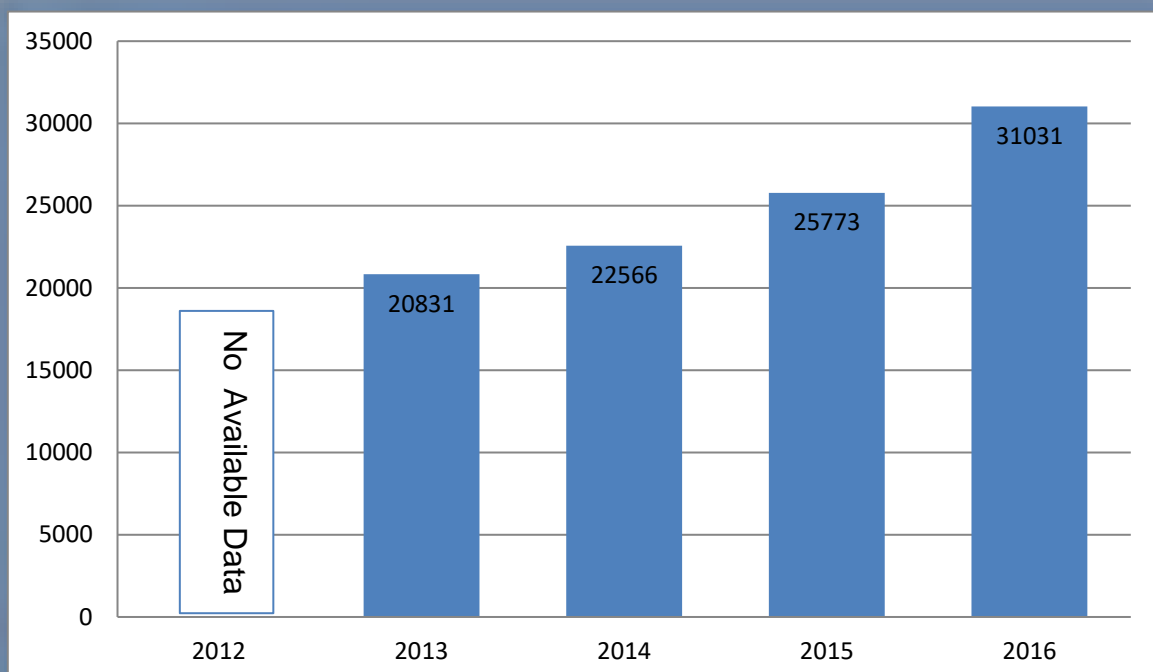
Education Phase



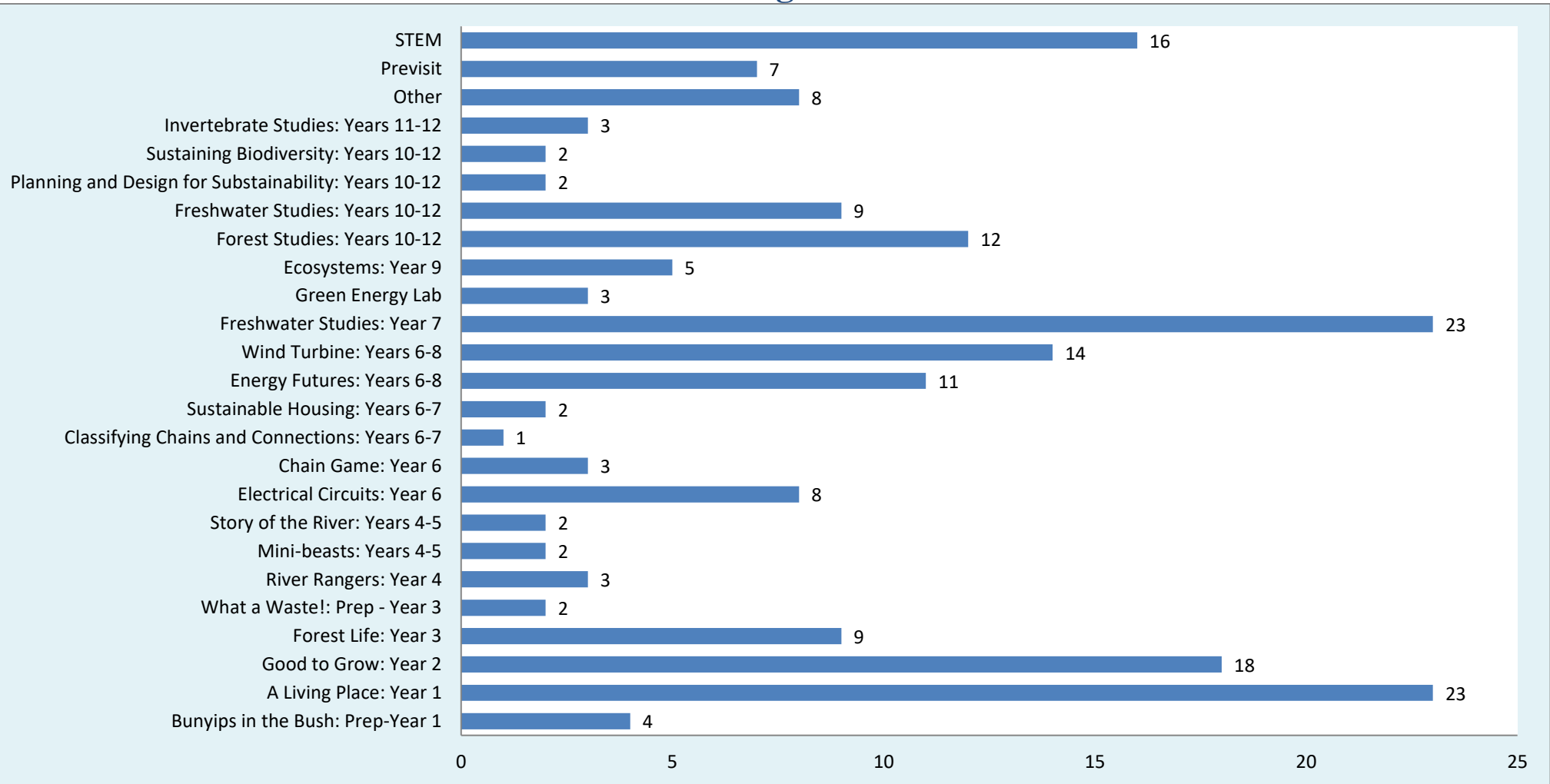
Student Visitation



Student Instructional Hours



Number of Programs Delivered



Visiting Teacher Survey Results

Question	Strongly Disagree %	Disagree %	Somewhat Disagree %	Somewhat Agree %	Agree %	Strongly Agree %
This centre was explicit about the alignment of the program to the Australian and Queensland curriculums.	1	.5	0	4	31	61
Students achieved the learning outcomes identified for this program.	1	0	0	1	19	78
Students received quality teaching from the Centre staff.	1	0	0	1	6	90
Students were highly engaged in the program.	1	1	0	0	12	85
This centre has positively contributed to the overall education of students.	1	0	0	1	10	88
Student safety was well managed by staff at this centre.	1	0	0	1	9	88
Student behaviour was well managed by staff at this centre.	1	0	0	1	16	79
This centre is well organised.	1	0	0	1	9	86
This centre is well resourced.	1	0	0	1	7	89
This centre is well maintained.	1	0	0	1	13	83
Teaching strategies used by centre staff catered for differentiated learning	1	1	0	7	30	58
Programs provided students with active learning opportunities (i.e. 'doing').	2	0	0	1	7	89

What were the most significant learnings for your students from this program including observable changes and personal growth?

- The students experienced the process of field work, and were challenged to extend their thinking to identify how actions at the local level can have wider implications.
- Collection of scientific data; Gain an understanding of abiotic factors and how they change; The use of correct terminology.
- Children discovered a wide range of microscopic pond life and could relate this to the adaptation concept.
- Life cycles of various animals; general information about animals; students are motivated by the energy of the team.
- Students were able to engage in hands on learning to consolidate what we had been exploring in class. Students being able to verbalise characteristics and features of different animals and insects.
- Students enjoyed the whole day and developed an appreciation of insects and their habitat. The hands on approach for them was very engaging and an excursion that they will remember for a long time.
- Differentiated learning opportunities- written, visual and kinaesthetic programs.

What did the students do in this program that contributed to student learning, observable change or personal growth?

- Student engagement was enhanced through the great amount of practical work undertaken by students.
- The hands on animal interaction is extremely valuable. Consistent use of scientific language such as camouflage, larvae, metamorphosis,

- Students were able to have individual turns with both insects and water creatures, which enhanced their participation.
- Exploring habitats in the forest and collecting insects to identify their observable features. Examining these features under the microscope and discussing how these features help the insects survive.
- Students were able to interact throughout the entire day which helped students to grasp all topics covered. Students were so involved and were given plenty of opportunities to ask questions and respond to questions.
- Collecting samples with correct scientific procedure and making scientific observations and collecting abiotic data to see first-hand how waterway quality is measured.
- Pond sampling at local creek; observation of animals in water samples and analysis of sensitivity levels.
- Range of activities kept students engaged and very hands on. Many students never experience forest walks and natural environments. It helps them value and care for nature, and stimulates their interest to be curious and learn more.
- Explored life cycles using a range of equipment; visited outdoor host environments; walked & observed wildlife, flora & fauna. Examined impact of humans on environment and came up with solutions re impact.

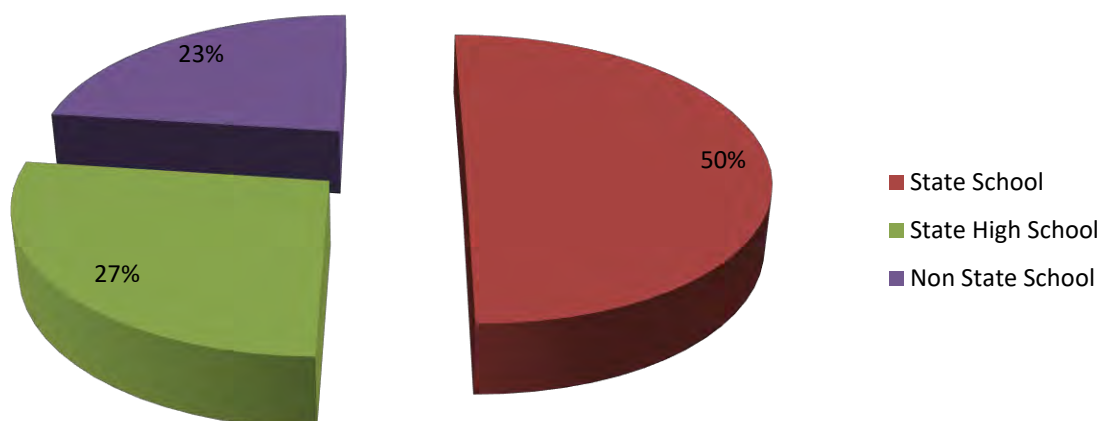
Additional Comments

- The staff were very patient and differentiated well for our students who are all EAL/D learners
- Overall an outstanding experience - we were the trial school for this activity and it has improved a lot since we first did it. I am highly impressed.
- Students were fully engaged and on task throughout the session. Equipment was unique to the students and therefore held their interest. Thoroughly enjoyable learning experience.
- I know the kids absolutely loved today. The activities were for their level, engaging and hands on. Their learning and understanding was built upon throughout the day. Thank you so much!
- Highly engaging for students and staff. Lots of fun and plenty of smiles on the children's faces.
- The picnic area was too small for the class group to sit & eat comfortably. Also very hot at the picnic area. It was better eating on the cool veranda last year.
- What a fantastic excursion. The students were engaged all day and were able to participate in so many hands on experiences. Such a wonderful way for students to learn! The program catered for all students and gave them a really exciting learning experience away from the classroom. Thank you so much.
- The hands on activities were very good. We could have had some lessons about food web and food chains before coming here. Some of the activities were a little challenging for some of the special ed students.
- I have done this program over all the years it has been offered to the school and found it invaluable to the development of scientific knowledge and safe experimentation for year 8 students.
- Wonderful program and caring staff. Thank you for a wonderful experience.
- Both Mrs T & Brad were fabulous and made both kids and staff comfortable with all experiences.
- Thanks for having us. The children and staff are more knowledgeable for the experience. The teachers had a wonderful way of communicating with the children.
- We needed to see a sign that said 'Toohey Forest Environmental Education Centre' because we got lost! We didn't know it was also called an EcoCentre.
- Staff interacted with young students well and were able to make adjustments for the different ranges of abilities and behaviours easily.
- Sections where students had to write in booklet need to be a few mins longer as some missed the next section of learning
- Excellent experience for students and teachers; would like to bring other year levels such as our Year 11 Biology
- My only suggestion would be to have a general waste bin near the outdoor tables
- Nicole was amazing, thanks so much.
- Program is exceptionally well suited to our younger boys (and girls) who have difficulty sitting & listening for long periods. It is hands-on & engages their imaginations.
- Thank you for your understanding and patience with our students. They really enjoyed the day of freshwater studies.
- Teresa and Nicole presented information and instructions in language pitched at an appropriate level for our EAL students. They interacted in a friendly and informative manner and responded to questions willingly.

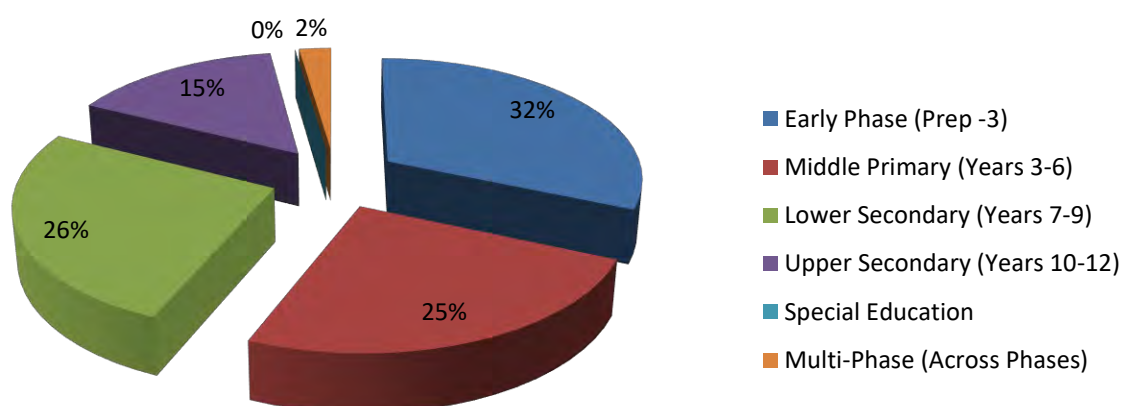
- *Great staff that were engaging. They were able to motivate students for the whole day!*
 - *Always on the mark - as always- great knowledge of the local area- great links to the assessment tasks - great communication and interaction with the girls – enthusiastic*
 - *Last year students used the microscope themselves downstairs and really enjoyed that experience, but that didn't happen this year.*
 - *All staff were wonderful and kept the children engaged in learning the whole time.*
 - *A wonderful day & so much fun for the kids. The map & letter at the end will keep them excited for weeks to come.*
- Thanks*

2017 Visitation and Feedback Summary

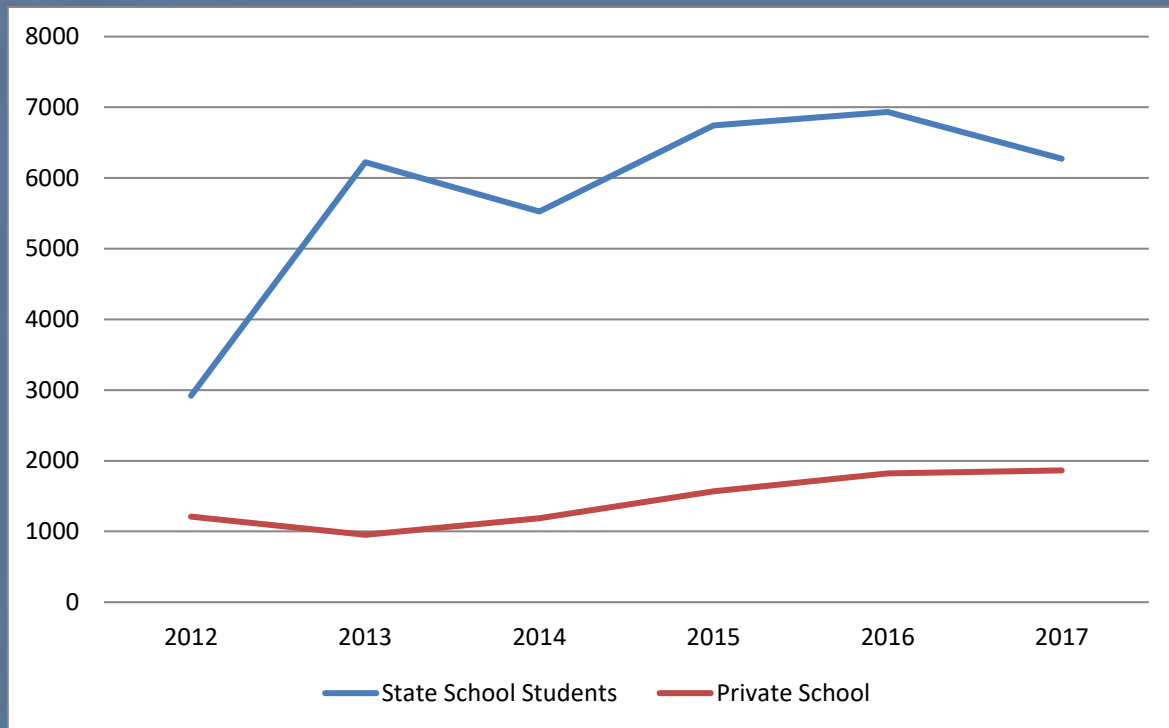
School Type



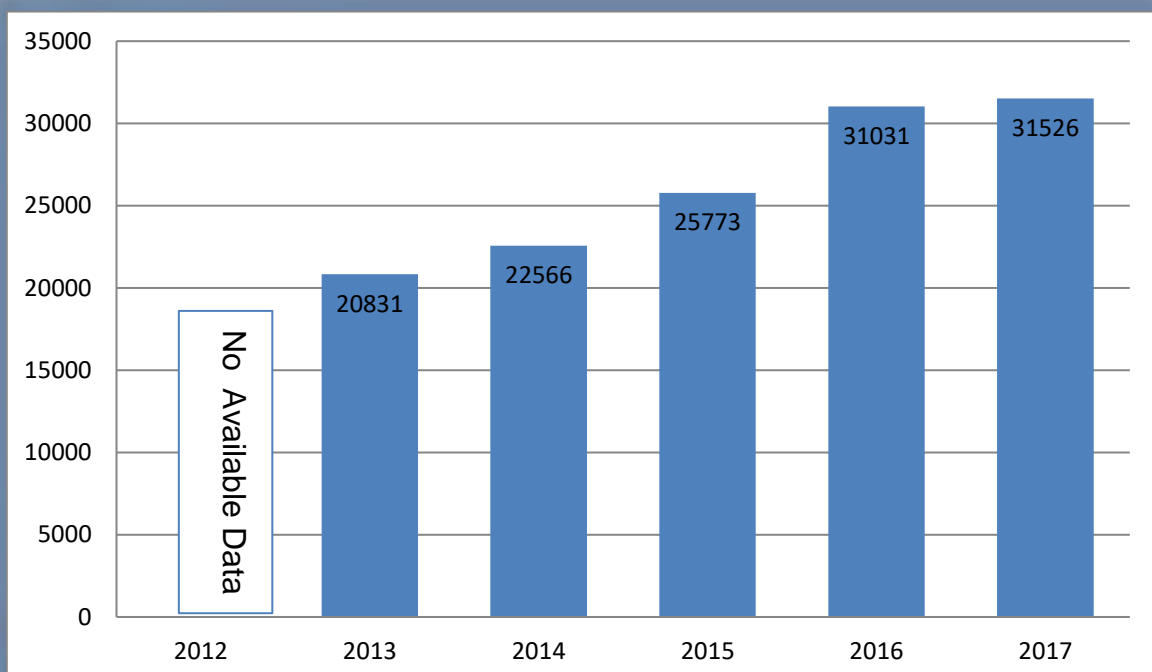
Education Phase



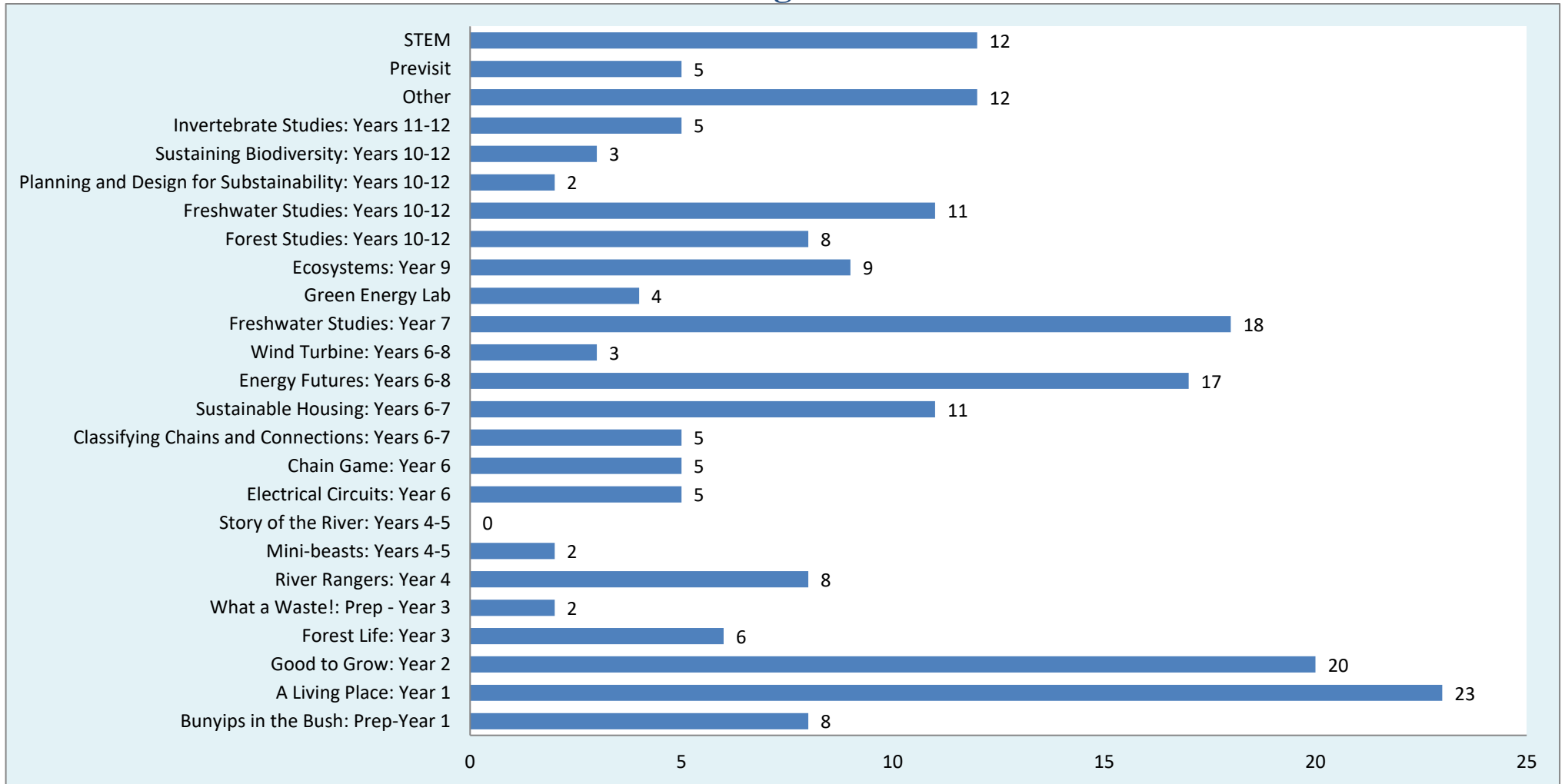
Student Visitation



Student Instructional Hours



Number of Programs Delivered



Visiting Teacher Survey Results

Question	Strongly Disagree	Disagree	Somewhat Disagree	Somewhat Agree	Agree	Strongly Agree
This centre was explicit about the alignment of the program to the Australian and Queensland curriculums.	7	0	1	6	44	126
Students achieved the learning outcomes identified for this program.	7	0	0	2	34	146
Students received quality teaching from the Centre staff.	7	0	0	1	15	166
Students were highly engaged in the program.	7	0	0	3	26	153
This centre has positively contributed to the overall education of students.	7	0	0	0	16	166
Student safety was well managed by staff at this centre.	7	0	0	1	23	158
Student behaviour was well managed by staff at this centre.	6	1	0	2	35	144
This centre is well organised.	7	0	0	0	15	166
This centre is well resourced.	7	0	0	0	13	167
This centre is well maintained.	7	0	0	1	13	167
Teaching strategies used by centre staff catered for differentiated learning	3	1	0	3	50	121
Programs provided students with active learning opportunities (i.e. 'doing').	3	1	1	10	58	111

What were the most significant learnings for your students from this program including observable changes and personal growth?

- *Practical application of classroom learning and extension beyond the skill set of the classroom teacher. In depth application of factors to the features of the forest.*
- *As an SEP teacher it was great to see the inclusivity of all students. It was also great to see SEP students prepared to have a go in a supportive environment*
- *I observed the engagement and self-directed learning displayed by students. It was obvious that this opportunity encouraged the student to be independent and manage their time well.*
- *The use of microscopes to observe the animals from the Creek was excellent. The microscopes and resources allowed students to easily identify organisms and they gained a lot from this experience.*
- *Absolutely every aspect was highly worthwhile and significant. The hands on activity at the creek was highly engaging, as was the problem solving scenario.*
- *The staff were enthusiastic, calm, intelligent and clear with their instructions. The children were fascinated to learn about various creatures and their lifecycles.*
- *Consolidation of classroom knowledge to links out in the field. There are real applications to what we learn in the classroom.*

What did the students do in this program that contributed to student learning, observable change or personal growth?

- *In the field experiences that were hands on. Exposure to resources we don't have access to in the classroom.*
- *Working in teams where each person had a different job and the kids had to work together to achieve the goal Using equipment to measure aspects of environment. Staff gave instructions and then allowed students to get stuck before they gave assistance.*
- *All students displayed an active interest in all activities undertaken which in turn contributed to maximum participation and learning from these activities. Great to see all boys wanting to be part of the activity and find a solution to the problem presented.*
- *Hands on activities out in the environment, seeing observations through a microscope, sorting data, sorting through the collections from the pond, having to think to solve a problem*
- *Finding and identifying different types of insects in the bush. Participated in hands on learning activities which provided students with real life learning experiences.*
- *Students were able to connect to real life experience, their theory knowledge that has been developed at school. Have the ability to participate in hands in inquiry measuring the biotic and abiotic factors of the area was fantastic. The classification activities were excellent.*
- *Our students had to work collaboratively to identify both plant and micro invertebrates. They also saw the various methods to collect abiotic data. They learned that some characteristics are more reliable for identification.*

What strategies did the centre teacher use to enhance student learning, observable change or personal growth?

- *Lots of observation and hands on learning. Linking pictures, names and characteristics. Lots of different ways of showing their knowledge. The presenters were great with the kids. Encouraged their expression and all ideas but corrected misconceptions and any kids off track in a very positive way. Kids were encouraged to talk about their learning.*
- *Centre teachers always ensured that all boys were focussed on the initial instructions given and any safety hints they needed to be aware of before commencing the activity. Each activity was explained in progressive steps and at the same time maximising student involvement. Students' interests were always maintained during the lesson.*
- *Engaging stories, relevant tasks and they enabled the students to use appropriate technology. The students were encouraged to use their own devices to record data, which gave them ownership.*
- *The teaching and leadership from the centre's staff was excellent, as always. The students really enjoyed the day and had every opportunity to learn about freshwater ecology.*
- *They had a lot of visual prompts so the children always had something to look at and were constantly engaged. There were lots of opportunities to for the children to interact and walk around.*
- *Range of delivery styles, various multimodal information transfers, consistent support with ongoing questioning to assist the students in knowledge formation.*
- *Encourage the participation of all students. Provide clear guidelines for safety and how to collect insects*

Additional Comments

- *A great day out. Our experience here brought learning to life. The children were excited and engaged the entire day.*
- *Students and teachers absolutely loved the experience. Activities and learning very valuable towards curriculum taught in the classroom.*
- *Another wonderful time at Toohey Forest. The kids and adults all learn something new every time we come.*
- *Fantastic day! Great range of activities, and the staff were enthusiastic, fun and kind.*

- *Thank you for providing the students with a firsthand experience in understanding respecting living things. I think next time I will make sure I inform the students of what things are recyclable and what is recyclable before they come. Thanks again*
- *Yet again another wonderful excursion. We really appreciate your hard work in providing us with such a quality and fun excursion. Thankyou*
- *Fantastic experience as usual. Thank you!*
- *Great day even in rainy weather. Wonderful teachers thank you*
- *Thank you to all the staff members of Toohey Forest EEC for their assistance and support in helping me to organise and run the activities at school as an incursion*
- *Thank you for a great day. All students were engaged within their learning and were inquisitive with exploration*
- *Having the two sets of data aligns with our assessment task (ERT) and so students are well positioned to compare primary and secondary data.*
- *Thank you for the best excursion ever. I cannot wait to come back, absolutely awesome!*
- *Great pre-visit. Great staff who are always willing to help students and accommodate changing assessment requirements of staff.*
- *Excellent facilitators for programs, develop working relationships with students quickly*
- *Great day, highly enjoyed by students, extremely relevant content to current unit of science- thank you very much 😊*
- *It was a great experience to link our science unit into real life situations. The students overly enjoyed the activities provided during the session and were engaged during the whole program, learning new vocabulary and using senses to explore their environment.*
- *Thank you to all of the friendly, patient staff at Toohey Forest EEC who made our visit a memorable, educational experience.*
- *Thank you for an amazing experience. It is well worthwhile bringing the kids to this as it is so beneficial to make a hands on connection for their learning.*
- *We are so pleased to have found this programme. The children have had an amazing learning experience. Thank you all so much!*
- *I love it every time. Thank you.*



2. Executive summary

2.1 Key findings

- Human, financial and physical resources are applied in a strategic and targeted manner across the centre to meet the learning needs of students and staff.

Toohey Forest Environmental Education Centre is a tenant of the Nathan Campus of Griffith University and located in the sustainably designed and exceptionally well-appointed Griffith University EcoCentre. A range of specialised equipment and teaching resources have been developed to engage students in high quality science-based learning experiences.

- Student visitation numbers have grown steadily over the last four years

The centre has taken an entrepreneurial approach to establishing and maintaining strong relationships with schools. The centre focus over the past four years on raising student visitation numbers has resulted in an increase from 4067 students in 2012 to a predicted 7753 students in 2015. This increase has been achieved in the absence of a current, documented strategic plan. There is an opportunity for the centre to add clarity to the centre's improvement agenda through more detailed action planning.

- The centre's ethos is built around a commitment to student learning through high quality science-based environmental education programs.

The centre has developed a range of programs designed to engage and inspire students in science. The programs have been specifically developed to target the areas of the science curriculum that schools find challenging to deliver. Feedback from teachers from visiting schools indicates high levels of satisfaction with the curriculum offered.

Teachers are supported to develop the skills and knowledge required to be successful and discuss their teaching in a professional informed manner. The centre framework for effective teaching practice is not referenced in teacher discussions and is not used to inform professional growth.

- Data is collected, collated and shared to monitor student visitations and visiting staff satisfaction.

The centre reviews and responds to visiting teacher satisfaction data to ensure high program standards are maintained. Information about student visitation numbers is shared with all staff and discussed at staff meetings. A centre data plan is yet to be developed.

- Centre teachers actively seek to improve their teaching through professional learning, observation and feedback processes.

The teaching staff at the centre are committed to developing their expertise. The principal works with teachers, providing feedback on teaching and, where appropriate, modelling effective teaching strategies as evidenced by the peer review process and the feedback given to all teachers from their peers. A professional learning plan aligned to improvement agenda is yet to be formally developed.

Strengths <ul style="list-style-type: none">• Staff (Teaching Quality) Good Mix, Work Ethics Progressive, highly organised and Professionalism• Location – access to schools• Natural assets - Based in University• Facilities and Equipment• Programs (provide for repetition & expertise; focus beyond traditional EEC's)• Pedagogy provides for 'hands on'• Healthy budget• STEM Horizons/G&T Partnerships (contacts; GU)• Headline Data (SOS, visitation, survey feedback)	Weaknesses <ul style="list-style-type: none">• Overly reliant on small natural assets• Too rushed @ days end. Conclusion poor• Lack of Higher Order Thinking• Lack of USO• Lack of pre & post visit materials• Cost of transport to / from EcoCentre• Small staff – lack of critical mass• No data collected from students
Opportunities <ul style="list-style-type: none">• New curriculum – Biology, Digital Tech & Earth Science• Field booklets (Hot; curriculum links)• Expand GU partnership• Expand G&T offerings• PD for teachers• Pre and post visit materials – develop using ICT's• Further PD opportunities (including 'best practice')• Continue to refine programs/activities• Future branding	Threats <ul style="list-style-type: none">• Changing curriculum<ul style="list-style-type: none">▪ Existing clients may disappear• Staying at 'top of the tree'• Staff complacency• Trying to be something to everyone• Supervisor lack of understanding of what we do• Data is largely volume oriented or 'touchy/feely'<ul style="list-style-type: none">▪ What is the effect on student learning?

Toohey Forest Environmental Education Centre - Request for Feedback from select Griffith University staff - Message (...

File Message Tell me what you want to do...

Ignore X Delete Reply Reply All Forward More Meeting Moorooka SS To Manager Done Create New Rules OneNote Actions Mark Unread Categorize Follow Up Translate Zoom

Delete Respond Quick Steps Move Tags Editing Zoom

SHEPHERD, Darren (dlshe0) Martin Betts; d.langdon@griffith.edu.au; SushilaChang; Rima Ismail-Jones; Andrew Smith; Annie Brant; Darryl Jones; + 7 2 17/08/2017

Toohey Forest Environmental Education Centre - Request for Feedback from select Griffith University staff

You forwarded this message on 6/09/2017 3:03 PM.

2016 Visitation and Feedback Summary.pdf 522 KB

Toohey Forest Environmental Education Centre (2260) (003).pdf 207 KB

Hi All,

I am sending this email to you as a Griffith University staff member that has current or previous involvement with the Toohey Forest Environmental Education Centre and / or is involved with University outreach activities. Toohey Forest EEC is seeking your input which, in turn, will be used to inform the development of a four year strategic plan. This plan will be the blueprint that will guide the service that we provide into the future and therefore has the potential to impact on Griffith University outreach, particularly outreach aimed at school-aged students.

Before undertaking any future planning activity it is important to determine where this centre is currently placed, i.e. What service does it provide? How is this service received? The two attachments provided include a summary of the collective responses provided by visiting teachers who utilise our service.

- **2016 Visitation and Feedback Summary** – includes historical student visitation and instructional hours data, as well as summaries collated from the feedback of visiting teachers
- **2016 Headline Indicator Report** – includes the Department of Education and Training's data summary for the centre (NOTE: A green colour indicates that the centre is achieving at or above the required level determined by DET)

It is an understatement to say that I am incredibly proud of this centre's achievements and the service that it provides for a large number of students in the greater Brisbane region. There is no doubt that the unique partnership that we enjoy with Griffith University is a major contributor to Toohey Forest EEC's success.

When responding to the following questions, could I ask you to draw upon your recent and possible future experiences.

QUESTION	RESPONSE / DETAILS
Are there specific opportunities or projects that you believe Toohey Forest EEC could provide support for or collaborate with Griffith University staff / faculties for mutual benefit?	
How can Griffith University leverage off, or further value add to, the service that Toohey Forest EEC provides for visiting school students?	
What could be done to improve the physical space of the Griffith University EcoCentre that would further support and enhance the service that Toohey Forest EEC provides for schools?	
Additional thoughts / ideas / suggestions / comments?	

While I appreciate that everyone is exceptionally busy, your input is valued and critical to framing the future of our partnership. **Could I ask that feedback is returned to me by Friday 1st September.** Please do not hesitate to contact me should you require further information. Thank you in advance for taking the time to assist.

Darren Shepherd | Principal

Toohey Forest Environmental Education Centre
Department of Education and Training
Griffith University EcoCentre (N60) | Nathan Campus | Brisbane QLD 4111
T 07 3735 6557 | M 0414 597 209 | E principal@toohyforest.edu.au

Client School Feedback Email



Topshy Forest Environmental Education Centre
Department of Education and Training
Griffith University EcoCentre (N56) | Nathan Campus | Brisbane QLD 4111
T 07 3735 6557 | M 0414 567 209 | E petalsci@topshyforest.eco.edu.au

Strategic Planning Meeting Follow Up - Message (HTML)

File Message Tell me what you want to do...

Ignore X Delete Reply Reply Forward Meeting More Move OneNote Actions Mark Categorize Follow Up Translate Find Related Select Zoom

Delete Respond Move Tags Go Editing Zoom

SHEPHERD, Darren (dshe0) GIBSON, Sue/Ellen (sgibs06); LAMBERT, Bradley (blamb17); 'mcriid1@eq.edu.au'; GRANROSE Mark; + 3= 13/11/2017

Strategic Planning Meeting Follow Up

Hi All. Thank you to everyone for taking the time out of their schedule to attend the strategic planning meeting here at the Griffith University EcoCentre on Friday 3rd November. Could I single out both Sue Gibson and Sean Mead who both travelled substantial distances to attend on the day.

Thank you to Sue for sharing the North Coast strat plan template. As the attendees know, the standard departmental documentation does not always suit the specific contexts of O&EEC's. Having a template that has been successfully used by Barambah EEC is a real positive for my centre which hopes to develop a strategic plan for approval during term 1 2018.

On a personal note, the meeting was a fantastic opportunity to listen to the agendas that are being set in other EEC's and a P-12 school (i.e. Whites Hill SC). Having previewed my notes from the day, a few points that come to mind are as follows:

- **Focus** – "short and sharp"; Mark Granrose in particular conveyed the need to limit the number of initiatives / agendas; and have "the learner as central". Mark and Sue both referred to the "all staff" consultation process informing the development of the strat plan (i.e. "ground up approach"). Consultation was also a priority of Mark Cridland's strat plan – "It's not about the principal."
- **Pedagogy** was front and centre in everyone's planning, while the method/s employed by individual sites was not as clear or uniform. The research is unequivocal – the single biggest impact that a school has on a child's education is the quality of the teacher. How we identify areas of strength / improvement, as well as the resulting strategies to address these at both a whole of staff and individual level, is something that I am interested in pursuing further.
- **Data** how participants used data; the issues of the data not necessarily addressing 'what is the impact of the centre on student learning'; multiple causal effects / influences; Ron Tooth's suggestion still rings clearly in my ears – "The sorts of questions that are being asked from CO can only be answered through a dedicated research project" which is far beyond what the current visiting teacher survey currently provides. Personally, I am not ruling out the possibility of engaging an external consultant to utilise proven research techniques to sample select participating teachers and students to determine more meaningful feedback. I am acutely aware of the need for evidence based decision making, and I am not sure that the current visiting teacher survey or staff SOS provides this. I am also a little unsure how some of our headline data indicators are arrived at (e.g. "Student instruction and professional development" – While I know that you need 90%+ to achieve a green rating, how is the 100% figure calculated? Is the 100% figure uniform across all centres, excluding Maroon and Tallebudgera?). Thank you to Sean for providing Brad with a 'how to' insert on the backend of the visiting teacher survey. Brad has already put this to work and has revealed a few little gems that will influence some program changes at Toohey Forest EEC in 2018.
- **Regional and / or central priorities** – A number of attendees used regional or central documents, discussions with supervisors etc. as the starting point for their strat plans.
- **Role of a centre/s?** Mel had an interesting take on the role of Brisbane Urban EEC, which she saw as "becoming more of a learning hub" which seemed to emphasise the value of partnerships (e.g. QUT). "Doing programs for schools is not just who we are or what we do!" Urban were also reforming pre and post visit support for select programs to assist students construct and refine their reports. This is something that Toohey Forest EEC is looking into, but more of a digital support (i.e. the staffing allocation and visitation for this centre would not allow us to grow pre and / or post visit support for our client schools).
- **Tallebudgera Beach School (or what I now know to be Tallebudgera Outdoor and Environmental Education Centre)** - What do I say? Where do I start? I had no comprehension as to the size or scope of the reform / improvement agenda at this site. I was impressed with Mark's application of forensic accounting (i.e. requirement for "financial sustainability") as a motivator for the need for change at Tallebudgera. My personal opinion is that the financial side of things is something that many centres (and perhaps schools) overlook, or pay only a cursory attention to, to their own detriment. I will be interested to hear how Mark's agenda for the site continues to evolve over time, and how the changes are received by the very large numbers of students who access this facility.

Please feel free to 'Reply All' if I have missed something or misrepresented something in my notes.

Once again, thank you to everyone for your valuable time. I am hopeful that everyone benefited in some small way from their involvement on the day.

Darren Shepherd | Principal

Toohey Forest Environmental Education Centre
Department of Education and Training
Griffith University EcoCentre (N68) | Nathan Campus | Brisbane QLD 4111
T 07 3735 6557 | M 0414 567 209 | E principal@toohyforestec.qg.edu.au