



Moreton Bay

ENVIRONMENTAL EDUCATION CENTRE

Inspiring Champions for the Bay

Annual Report

2018



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Moreton Bay Environmental Education Centre Overview

Centre Profile

The Moreton Bay Environmental Education Centre is a day visit centre that shares a location with the Wynnum State School. The centre is located just a short walk from the Wynnum train station, and the vessel, *Inspiration*, a short walk from Manly train station, making it accessible for students.

The centre caters for students across all phases of learning from P-12 through day visit programs. The majority of students visit from schools in the Metropolitan and South East Region, however students from the North Coast and Darling Downs South West Regions also access centre programs.

Facilities at the centre provide an excellent stimulus for programs based on sustainable building design principles. The centre, modelled on exemplary sustainable design principles, received an exceptional 6.5 star rating for Green Design. Unique to the centre is the state-of-the-art twelve-metre aluminium catamaran, *Inspiration*. *Inspiration* is a floating classroom that has the ability to carry forty students on board while actively carrying out projects to further their environmental education.

The centre uses environmental education to focus on heritage sites, natural coastal and marine environments, urban development, industry and the Brisbane River catchment as well as the indigenous history and culture of the Quandamooka people of Moreton Bay and surrounding islands. The centre's programs support cross-curricular priorities of indigenous histories and culture and sustainability as well as the key Australian Curriculum learning areas of science, history and geography.

Unique partnerships with Queensland Parks and Wildlife Services, Newstead House and the Port of the Brisbane see centre staff deliver authentic programs connected to these sites.

Vision, Mission and Values

Vision

'Inspiring Champions for the Bay'

Mission

To inspire students through unique, place-based education experiences and hands-on opportunities that enrich curriculum and student learning while showcasing our ability to lead and meet the needs of classroom teachers, schools, community and the Department.

Values

- Innovative learning experiences connected to place and linked to the Australian Curriculum
- Passionate and committed practitioners
- Collaborative authentic partnerships
- Respect for the environment to support sustainable futures
- Inclusion of indigenous perspectives to promote a culture of respect and understanding

Commitment to Learners and Service

Moreton Bay Environmental Education Centre is committed to supporting young Australians in becoming successful learners, confident and creative individuals and active and informed citizens.

This is achieved by:

- Delivering high quality environmental education learning experiences that use a multi-disciplinary approach to enhance classroom learning;
- Providing professional support that builds the capacity of classroom teachers and pre-service teachers to educate for a sustainable future; and
- Supporting a nucleus for creating effective community and school partnerships.

Principal's foreword

Moreton Bay Environmental Education Centre (MBEEC) is committed to inspiring students through unique, place-based educational experiences and hands-on opportunities that enrich the curriculum and student learning. Highlighting our ability to lead and meet the needs of classroom teachers, the centre community and the Department is paramount.

The cornerstone of our improvement strategy is an unwavering focus on reflecting and reviewing our teaching methods, liaising with schools, and shared partner commitment to ensure best practice. The centre has a demonstrated capacity to plan, provide direction and revise practices for the benefits of our visiting schools and students.

The Annual Report, designed to provide an overview of MBEEC's achievements and practices for 2018 reflect on strengths, limitations and future directions. Detailed information about centre priorities ensures that the centre is working towards achieving them. This report is one component of a suite of strategic documents the centre develops and implements in collaboration with staff and the Department of Education. This report reflects the development of the centre along with Headline Indicator Data, Data Plan, Professional Learning Plan, Pedagogical and Curriculum Framework, and Business Plan while drawing from the Annual Implementation Plan, Investing for Success Plan and Strategic Plan.

In 2018 the centre entered the second year of implementation of the current four-year strategic plan. The focus for centre improvement during the year remained on the four key elements of the strategic plan:

- Maximising student learning through effective teaching practice focussed on the achievement of every student guided by an explicit pedagogical framework
- Instructional leaders and capable workforce
- Authentic student experiences aligned to the AC and connected to unique places where students are challenged to critically and creatively think about their learning
- Innovative partnerships enhancing student learning and community outcomes.

We are proud of our focussed results to date. Moreton Bay EEC were recipients of the Healthy Land and Water Sustainable Education Award in 2018 for *Inspiring Bay Champions through STEM*. This award further supported our work in 2017 when Moreton Bay, Toohey Forest and Brisbane Urban EEC's, along with SPARQ-ed were awarded the Department of Education and Training Showcase Award for Industry Partnerships for the *STEM Horizons for High Achievers Program*. Additionally, the centre received a Metropolitan Regional Showcase Award Commendation for *Inspiring Curiosity through theatre-in-education*.

Staff presented Moreton Bay EEC's highlights and ways of working at various conferences throughout the state including the National Australian Association of Environmental Education Conference, Education Queensland International (EQi) State Conference and STEM Symposium on *Inspiring Bay Champions through STEM*; and State-wide Marine Teachers Association Conference on *Using Citizen Science to fulfil the requirements of the new syllabus*.

In summary, we strive to work closely with our schools, partners and wider community to continue to improve our centre and its learning outcomes for all.

Our School at a Glance

Centre Snapshot

Coeducational or single sex:	Coeducational
Independent Public School:	No
Year levels programs offered in 2016:	Prep – Year 12
Community programs:	Yes

Centre Analysis

This section of the report provides a summary of specific data including attendance, instructional hours, staff and visitor satisfaction ratings.

Trends 2012 - 2018

A review of the visitation data over the last four years indicates a number of trends:

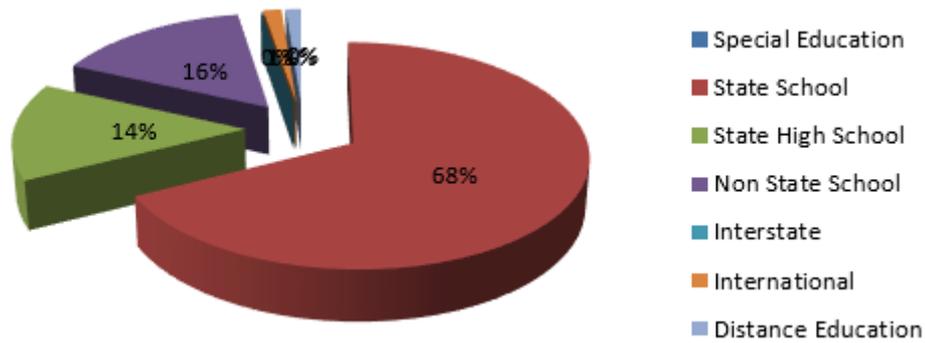
- growing engagement of the prep to year three age group in programs
- consistent engagement of upper secondary in MBEEC programs
- increase in the number of hours of student instruction (Table 1)
- stable student visitor numbers with our predicted amount achieved (Table 1)
- continued strongest engagement from Metropolitan and South East Queensland

Table 1: Student visitation and instructional hours delivered by MBEEC staff from 2014 to 2018

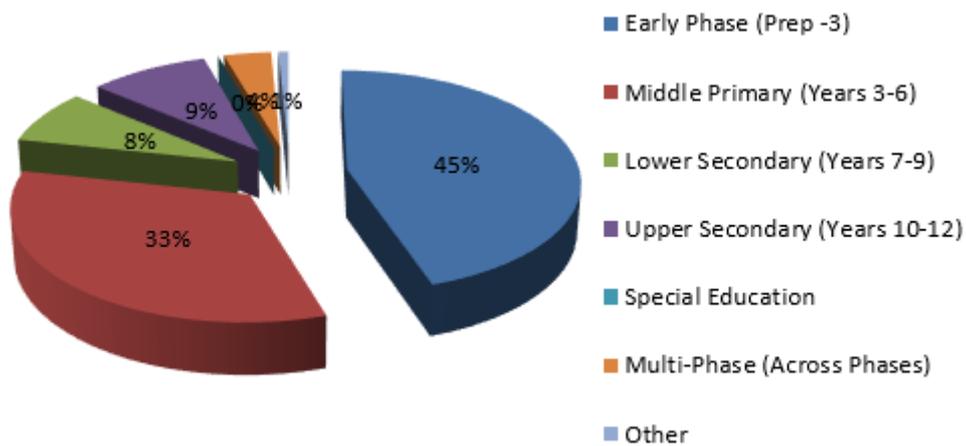
Year	Student Visitation (no.)	Instructional Hours (hrs)
2014	12 906	32 004
2015	16 595	40 307
2016	16 568	41 951
2017	18 591	51 832
2018	16 435	53 295

Analysis from 2014 to 2018 reveals a 68% increase in student instructional hours (Table 1). MBEEC has reached centre capacity on student visitation and instructional hours with similar figures predicted for 2019.

Moreton Bay EEC is an inclusive school. The range of schools visiting for programs is across state, independent and catholic, and is comprised of a diverse range of ethnicity and cultural backgrounds. The greatest number of visiting students are from state schools (Graph 1) and are from Prep to Grade 3 (Graph 2).



Graph 1: Proportion of the number of students visiting the centre by school type in 2018



Graph 2: Proportion of the number of students visiting the centre by learning phase in 2018

Curriculum Delivery

Teaching and learning approaches (for P-12 students, focusing on Science, History and Geography) predominately utilised by the centre include:

- Inquiry-based learning – science investigation, scientific inquiry and critical thinking
- Utilisation of variety of natural and cultural sites in and around Moreton Bay
- Critical thinking activities designed to challenge
- Theatre-in-education strategies and conventions
- Experiential learning strategies and hands-on learning experiences utilising relevant and familiar contexts
- Narrative pedagogy and play-based learning methods
- Information communication technology (ICT) to enhance the learning experience

Other activities

- Tour guide induction and certification for St Helena in partnership in with Queensland Parks and Wildlife Services (QPWS)

Social Climate

2018 Headline Indicators

Headline indicators for MBEEC indicate positive student instruction and professional development (Table 2 and Diagram 1). Feedback survey results from partner schools and teachers indicate MBEEC offered highly engaging, safe and well organised programs. Survey results demonstrate high levels of satisfaction with quality of teaching and contribution of programs to student learning. The centre is explicit in learning outcomes and alignment of programs to the Australian and Queensland Curriculum. The MBEEC STEM Horizons programs and BSDE extension programs extend students beyond their year level. All data is Blue with indicating optimum outcomes (Diagram 1).

Table 2: 2018 Headline Indicator Teacher survey data in response to statement about MBEEC. Responses measured on a 6 point Likert Scale (1 = Strongly Disagree to 6 = Strongly Agree)

Headline Indicator Teacher Survey Questions	Mean Response
The centre was explicit about the alignment of the program to the Australian and QLD curriculums.	5.8
Students achieved the learning outcomes identified for this program.	5.8
Students received quality teaching from the centre staff.	5.9
Students were highly engaged in the program.	5.8
The centre has positively contributed to the overall education of students.	5.8
Student safety was well managed by staff at this centre.	5.9
Student behaviour was well managed by staff at this centre.	5.8
The centre is well organized.	5.9
The centre is well resourced.	5.9
The centre is well maintained.	5.9

2018 Annual Headline Indicator Report		
Moreton Bay Environmental Education Centre (3567)		
Actual vs Potential Instruction	Satisfaction	Feedback Survey
Student instruction and professional development	I receive useful feedback about my work at this school.	This centre was explicit about the alignment of the program to the Australian and Queensland curriculums.
	I feel that staff morale is positive at my school.	Students achieved the learning outcomes identified for this program.
		Students received quality teaching from the Centre staff.
	I have access to quality professional development.	Students were highly engaged in the program.
		This centre has positively contributed to the overall education of students.
	I am aware of occupational health and safety procedures at my school.	Student safety was well managed by staff at this centre.
		Student behaviour was well managed by staff at this centre.
My school encourages coaching and mentoring activities.	This centre is well organised.	
	This centre is well resourced.	
This is a good school.	This centre is well resourced.	
	This centre is well maintained.	

Diagram 1: 2018 Headline Indicator Data (instructional hours, SOS data and teacher survey)

School Opinion Survey

Percentage of school staff who agree that:	2016	2017	2018
they enjoy working at their school (S2069)	100%	100%	100%
they feel that their school is a safe place in which to work (S2070)	100%	100%	100%
they receive useful feedback about their work at their school (S2071)	100%	100%	100%
students are encouraged to do their best at their school (S2072)	100%	100%	100%
students are treated fairly at their school (S2073)	100%	100%	100%
student behaviour is well managed at their school (S2074)	100%	100%	100%
they feel well supported at their school (S2075)	100%	100%	100%
their school takes staff opinions seriously (S2076)	100%	100%	100%
their school looks for ways to improve (S2077)	100%	100%	100%
their school is well maintained (S2078)	100%	100%	100%
their school gives them opportunities to do interesting things (S2079)	100%	100%	100%
staff morale is positive at their school (S2084)	100%	100%	100%
they feel that social, cultural and racial diversity are respected (S2083)	100%	100%	100%
they feel they have access to quality professional development (S2086)	100%	100%	100%
they feel the school encourages coaching and mentoring activities (S2103)	100%	100%	100%

Student feedback

Positive survey data from teachers and partner schools is evident by analysis of student survey data collected via STEM Horizon programs and BSDE extension opportunities.

Feedback from students who attended MBEEC's day in the STEM Horizons for high achievers program (Year 9 $n = 206$, Year 7 $n = 239$, Year 6 $n = 217$) indicate that a large proportion of students found activities engaging and extended their knowledge and would recommend to a friend (Table 3 and Diagram 2).

Table 3: 2018 Student, Teacher and Parent voice from MBEEC's day on the STEM Horizons for High Achievers. Figures indicate the proportion of students who agree or strongly agree with the given statements.

Statements about Program	Yr. 6	Yr. 7	Yr. 9	Total
Student Voice				
<i>I found the activities scientifically interesting and engaging</i>	94%	91%	96%	94%
<i>I extended my STEM knowledge and understanding during activities</i>	94%	97%	96%	95%
<i>It has inspired continuation of STEM study to the end of schooling</i>	95%	95%	96%	95%
<i>I would be interested in participating in STEM education experiences on Inspiration at the Moreton Bay EEC in the future</i>	92%	85%	91%	89%
Teacher Voice				
<i>Increased students engagement and motivation in STEM</i>	100%	100%	100%	100%
<i>Enabled valuable networking with scientists to build capacity</i>	100%	100%	100%	100%
Parent voice				
<i>Engaged their child to participate in STEM Horizons in the future</i>				100%
<i>A valuable experience</i>				98%

Diagram 2: STEM Horizons for High Achievers summary



STEM Horizons for High Achievers

What is STEM?

STEM is an acronym for **Science, Technology, Engineering and Mathematics** practice and education.

Why STEM?

In the move towards a knowledge-based economy, a workforce of scientifically and technologically literate people is key.

In 2011-12, approximately 10.5% of the Australian workforce were directly employed in STEM-related occupations while 75% of the fastest growing occupations require STEM skills and knowledge.

"A renewed national focus on STEM is critical to ensuring that young Australians are equipped with the necessary STEM skills and knowledge that they will need to succeed".

VISION

To provide extraordinary STEM experiences for students through a range of diverse unique opportunities.

HOW

Ensure activities are hands-on and enable students to actively engage in critical and creative thinking and problem solving. Linked authentic 'real world' science enhances engagement and connection with possible future STEM careers.

PARTICIPATION

3200+

Primary and Junior Secondary students

OUTCOMES

PARENT VOICE



STEM Horizons

Engaged their child to participate in STEM Horizons in the future

100%

A valuable experience

98%

STUDENT VOICE



STEM Horizons

Provided opportunities not available in schools **100%**

Enhanced their STEM knowledge and understanding **97%**

Scientifically interesting and engaging **100%**

Inspired continuation of STEM study to end of schooling **95%**

TEACHER VOICE



STEM Horizons

Increased student engagement and motivation in STEM

100%

Enabled valuable networking with scientists to build capacity

100%



Our Staff Profile

2018 Staffing

- Band 7 Teaching Principal
- 4 Teachers (across 3 x FTE Teaching Positions)
- Business Services Manager A03 (0.97 FTE Centre funded upgrade)
- Boat Officer (Funded)
- Cleaner (11.75 hours per week)
- Centre purchased Program Officer

Professional Development

Expenditure on and Teacher participation in Professional Development.

The major professional development initiatives are as follows:

- Aspiring Thinkers with Peter Ellerton through the IMPACT Centre
- Australian Association of Environmental Education National Conference
- Professional Development Network workshops and annual conference
- STEM Symposium
- Marine Teachers Association
- QCAA Senior Syllabus
- STAQ Senior Science Days

Staff Attendance and Retention

	2016	2017	2018
Staff attendance	99.7%	98.7%	99.4%

The staff at Moreton Bay EEC are committed, passionate and dedicated practitioners and educators. With a small staff, a team environment where everyone will do whatever it takes to ensure optimal outcomes is essential. The proportion of staff proudly retained from the previous year is 100%.

Executive Summary of 2018

Throughout 2018 the centre provided over 15 different programs for over 16,000 students from Prep through to Year 12. A process of refinement of current programs characterized the year as well as being explicit in incorporating critical and creative thinking skills into programs (Diagram 3).

The continuation of Science, Technology, Engineering and Math (STEM) Horizons program for Years 6, 7 and 9 students was successful beyond all expectations. MBEEC achieved the Healthy Land and Water Sustainable Education Award this year. This follows the Showcase Award for Excellence in Industry Partnerships, which MBEEC achieved in partnership with Toohey Forest and Brisbane Urban EEC's. The Young Writers program, another successful initiative, saw in excess of 100 students become published authors and achievements celebrated by the community. The Duke of Edinburgh Awards program commenced in 2015 is continuing.

The deliberate focus on consolidating existing programs ensured realignment with the Australian Curriculum and included critical thinking opportunities for students. Program Itineraries, reviewed and streamlined, ensured explicit learning intentions. Feedback processes, utilised to collect greater data on student learning and experience, informed program refinement.

The business plan implemented during 2015, resulted in the appointment of a fully funded 1.0 full-time boat officer for 2016 ongoing. The professional development of staff emerged as a key priority in 2018 along with the introduction of positive feedback and mentoring processes. Group and targeted professional learning and networking opportunities. All staff attended the Australian Association of Environmental Education National Conference in October. Teaching staff have all completed the Aspiring Thinkers Program with University of Queensland's Peter Ellerton.

This Centre's wide process of reflection resulted in a more targeted use of the building and grounds as a base for appropriate programs. Streamlined and enhanced scheduling of programs achieved through the online booking portal was evident. There was a focus on building stronger external networks with other environmental education centres, professional curriculum associations and experts in relevant fields. In 2018, MBEEC continued to serve its many partners within a mutually beneficial relationship.

Feedback surveys from attending schools, teachers and school leaders are extremely positive indicating that MBEEC offered highly engaging, safe and well organised programs. These survey results demonstrated high levels of satisfaction with the quality of teaching and the contribution of the programs to student learning. Additional surveys with the STEM Horizons and Brisbane School of Distance Education extension groups found exceptional student feedback indicating challenging curriculum within authentic experiences.

Staff professional development focused on critical and creative thinking, leadership, Wynnum Manly school education alliance cluster opportunities, and opportunities for beginning teachers. This investment developed staff competence and confidence resulting in enhanced student learnings.

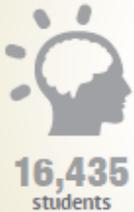
Diagram 3: Highlights 2018



MORETON BAY EEC

Inspiring Champions for the Bay

STUDENT ENGAGEMENT



connecting to place
and being immersed
in authentic learning
experiences inspiring
curiosity and thinking

PROGRAMS: PREP – YEAR 12



15+

PLUS International students,
universities + the community

AWARDS AND GRANTS



- 2018 Healthy Land and Water Sustainable Education Award
- 2017 Showcase Awards for Excellence in Industry Partnerships:
STEM Horizons for High Achievers (Moreton Bay, Toohey Forest, Brisbane EEC's and SPARQ-ed)
- 2016 Showcase Awards for Excellence in Schools:
State School Leadership Team of the Year (as part of the WMsea cluster) titled *Powerful Empowering Partnerships*
- 2016 Premier's Sustainability Awards: Highly commended Sustainability in Education Award
- Port of Brisbane Community Grant
- Healthy Land and Water Awards: Sustainable Education Category
 - Bunya to Bay Eco Adventure in partnership with Stanley River and Barambah EEC's
 - Ministers Grand Prize 2017
 - Finalist 2015
 - Students on board for Mangrove Watch
 - Finalist 2014 and 2015
- Collaboration Innovation Fund 2016

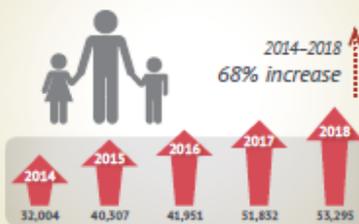
EXTENSION PROGRAMS

- STEM Horizons
- Young Writers
- Young Leaders
- Solid Pathways
- Duke of Edinburgh

100%

Programs linked to the
AUSTRALIAN CURRICULUM

STUDENT INSTRUCTIONAL HOURS



OUR STARS

DIANNE AYLWARD

- Queensland College of Teachers Excellence in Teaching Awards
Excellent Leadership in Teaching and Learning

TIM ROE

- Peter Doherty Award for Excellence in Science, Technology, Engineering and Mathematics (STEM)
Outstanding Teacher of STEM

10+

SPECIALISED LEARNING SITES

- Moreton Bay
- St Helena Island
- Fort Lytton
- Wynnum Mangrove Boardwalk
- Stradbroke Island
- Manly foreshore
- Wellington Point foreshore
- Port of Brisbane
- Port of Brisbane Bird Hide
- Green Island
- Newstead House



Moreton Bay
ENVIRONMENTAL EDUCATION CENTRE
Inspiring Champions for the Bay

Overview – MBEEC progress towards its goals in 2019

An Explicit Improvement Agenda

The MBEEC improvement agenda has been effective in focusing, and to some extent narrowing and sharpening the whole attention on inquiry and experiential learning priorities across programs. There is a strong and optimistic commitment by all staff to an improvement strategy and a clear belief that further improvement is possible.

The following key planning tools guided activities completed in 2018:

- Strategic plan from 2017 – 2020
- Annual implementation plan 2018
- Annual Report 2017
- Business Plan

2019 Future outlook

The new year of 2019 provides further opportunity to build on achievements of the previous year. Reaching optimum booking makes it vital to explore creatively ways of service delivery to meet client demands. Focus will be on continuing the MBEEC journey to ensure rich student learnings.

Moreton Bay Environmental Education Centre is committed to the following in 2019:

- Senior secondary curriculum alignment – quality teaching through alignment and collaboration for the new senior assessment and tertiary entrance (SATE) systems.
- Leadership through intentional collaboration – formalised coaching including professional development opportunities that support teachers to deliver high yield strategies enhancing student-learning experiences.
- Impact through partnerships – systematic evaluation of theatre-in-education partnership programs to measure enhanced student learning.
- Wellbeing – develop practices to support the staff who support our students.