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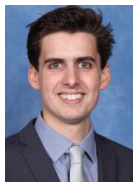
Volume 3 Number 1 December 2019



A year in review The Barker Institute in 2019

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About the Authors



Dr Matthew Hill is the Director of Research in Learning & The Barker Institute with a focus on professional learning, research and innovation in the School. He teaches Physics and the new Science Extension course at the School which introduces students to scientific academic research. Matthew's doctorate reflects his passion for science education focusing on Representational Fluency amongst physics students at school and university. He has published in leadership, education and science journals and been involved in course development and teaching at The University of Sydney and The University of Western Sydney. He has also completed a Graduate Diploma in Divinity at Ridley College in Melbourne.

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Dr Matthew Hill
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Printing

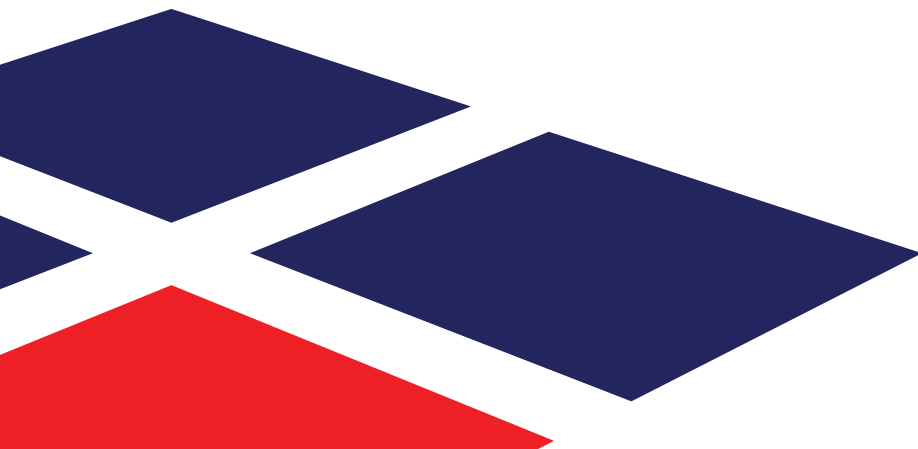
Barker Print Room
JTP Graphic Design & Custom Print

Editorial Assistant

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Creative

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Learning in Practice
2019 Vol. 3 (1)
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Abstract

2019 was the fifth year of the Barker Institute running events, training and research in the School. Developed under the leadership of Mr Phillip Heath (Head of Barker College) and founding Director, Dr Brad Merrick, the Institute has been a gathering point for the Barker community to engage in further learning. Through sharing emerging thinking, practice and approaches to learning with the broader Barker community the Institute has continued to create an inclusive and welcoming environment that fosters learning across all key areas. This article serves as an overview of the various presentations and areas of coverage included in the internal and external events throughout the year, the first with Dr Matthew Hill as the Institute Director.

Learning together as one community from experts and best-practice research

In 2019 the Barker Institute continued in its strong legacy of providing access to rich and diverse presentations, research and thinking across a range of settings. This year involved seventeen public events, for almost 3000 people, along with various other training opportunities for staff at Barker and beyond.

Two important values of the Barker Institute are excellence and accessibility.

Through every Barker Institute activity, it is experts (from the academic, professional or community spaces) who are sharing their wisdom either directly or through books, film and other literature. In 2019 this included those at the top of their field such as Dr Corey Cunningham (Medical Director for the NSW Institute of Sport and Chief Medical Officer for Football NSW, the Australian Paralympic Team and the Australian Sailing Team) sharing how his work at Barker College through the groundbreaking concussion clinic has almost eliminated secondary concussions at the School. Similarly, Heather Staker (international blended learning expert, author, founder and president of the research initiative Ready to Blend), was flown in from the USA to train staff and parents from Barker and beyond. The Institute has access to the top journals in educational psychology, professional development, adolescent wellbeing and health and is regularly engaging the staff community with opportunities to adopt best-practice by learning from expertise.

Under the wise leadership of Phillip Heath and the School's leadership, the Barker teaching community, parents and students have access to such expertise, however learning must always be done in an inclusive and accessible way. The benefits of learning afforded by the Barker Institute were never to be held back from the wider Barker community that extends across Sydney and beyond. Evening events are advertised to a wide subscriber base consisting of teachers and parents from many schools in the local area and others even further afield. Our Term 4 screening of the film '2040' with an appearance and interview from creator, director and star Damon Gameau became a collaborative activity amongst

passionate young people and their families from many schools. Probably the most exciting example of accessibility was when the Institute hosted two public lectures for the new NESA Year 12 Science Extension course. Teachers came for professional learning in how they might teach the difficult content of the history and philosophy of science from Dr Alison Gates and Dr Matthew Hill and were provided with notes and PowerPoint presentations that they could take back to their classes. Classes were cancelled around Sydney and students were bussed to Barker from schools such as Pittwater House, Gosford High School, Menai High School and even as far as Macarthur and Wollondilli Anglican Schools. This was a rich experience for the Barker students to participate in an excellent and accessible community of learning, modelling life-long learning as part of their school education. Learning is truly for all.

2019 Events

Junior School students and parents participated an interactive workshop on *The Language of Friendship* led by Dana Kerford of URStrong, considering what friendships and relationships look like at an early age. Additionally, in Term 3 they joined members of the Middle and Senior Schools and the community for the *Barker Light Festival*, an evening of all things STEAM (Science, Technology, Engineering, Arts and Mathematics) including games, puzzles, talks and presentations from astronaut Dr Paul Scully-Power and Lead Scientist of the Royal Institution of Australia, Professor Alan Duffy, on space and technology.

An academic and expert perspective on real issues facing our world and our young people was explored through evenings focussed on *Sport (Age appropriate strength and conditioning – Dr Angus McEntyre and Understanding concussion, mitigation and management – Dr Corey Cunningham)* and two documentary screenings and associated interviews with filmmakers (*The Final Quarter* with Norman Laing, Sally Fryer, and ex-student Jayden Kitchener-Waters; and *2040* with Damon Gameau).



Some evening presentations were related to the school curriculum (*Everyday Economics* with Joanne Masters, Chief Economist for EY Oceania, and Lea Jurkovic, A Graduate Economist with the RBA; and *The History & Philosophy of Science* with Dr Alison Gates and Dr Matthew Hill) and gave insights to parents and the community about curriculum design at Barker (*Guided Inquiry* with Dr Leslie Maniotes, and *Blended Learning* with Heather Staker).

The issue of impacts of ubiquitous technology was investigated through three insightful presentations including *Families in the Digital Age* – Toni Hassan, *Brain Health* – Gayelene Clews and *Safe on Social Media* – Kirra Pendergast. This theme of thriving in a technology rich environment will continue to be dominant through Barker Institute events and research in 2020.

Research and Publications

At the start of the year the second volume (2018) of the Barker Institute Journal, *Learning in Practice* (<http://www.barkerinstitute.com.au/about/research/barker-institute-journal>) was published. This included 11 articles from 15 Barker staff members involved in teaching, research and leadership.

Three articles from the first volume (2017) were republished as monograph-like feature articles resulting in higher dissemination throughout the School and beyond. These included 'Barker Girls' Rugby Sevens Trial: Breaking Stereotypes' by Alex Butt and Alison Cox, 'A Coeducational Future' by Melissa Brady, and 'Establishing our Darkinjung Barker Reading Programmes' by Michelle Studd. They can be downloaded from the website (<http://www.barkerinstitute.com.au/about/research/feature-articles>).

14 Year 12 Barker students (studying Science Extension in its inaugural year) were published in our first *Scientific Research in Schools* academic journal disseminating first-hand research more typically seen at a university level. Copies of this journal are available to the public on the Barker Institute website (<http://www.barkerinstitute.com.au/about/research/student-research>) and have been sent to schools and universities around Sydney. Already new Year 12 students are basing their research off work done by the 14 Barker students in 2019. The work of these students has even come across the desk of senior staff at NESA and the Chief Scientist of Australia.

One example of research from this year is presented as two articles in this current volume of the Barker Institute Journal (2019). These reflect the summary and launch of two complementary projects entitled 'The Barker Journey'. Dr Brad Merrick (founding Director of The Barker Institute) began a study in 2006 with a group of Year 3 students as they were embarking on a decade of Barker education. The longitudinal study followed the male students as they developed intellectually, physically, socially, personally and spiritually over each year of schooling. In 2019 the Barker Institute began the second iteration of the Barker Journey study with a now coeducational cohort of students, the first coeducational Year 3 group on the main campus at Barker, to see the similarities and differences with the Barker experience ten years on from the first study. Observations from the first year are presented in this journal and progress will continue to be reported for years to come.

Further research projects have been conducted in partnership with The University of Sydney, The University of Melbourne, Ridley College, The University of Technology Sydney, Macquarie University and The University of New South Wales on issues ranging from teacher wellbeing, brain science, the impact of religiosity on wellbeing, teacher training, sport and conditioning, and leadership development.

Conclusion

2020 promises to be an exciting year of future learning through the Barker Institute and all are welcome to participate in this growing community activity.

May the prayer of the Barker Institute continue to be true for many years to come.

Our Lord and Our God,

We pray for all who teach, learn, research and innovate in our school community.

Deliver all of us from thinking that we have grasped all we need to know, done what we need to do, and become all that we could become.

Make us humble and teachable, grateful for the opportunity to learn, and open to growth and new understanding today and each day.

Amen.

Notes

A series of horizontal dotted lines for writing notes.



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