



# THE MATHEMATICAL ASSOCIATION OF VICTORIA ANNUAL REPORT 2018-2019



MAV IS A MEMBERSHIP-DRIVEN ASSOCIATION THAT PROVIDES A VOICE, LEADERSHIP AND PROFESSIONAL SUPPORT FOR MATHEMATICS EDUCATION.

## **PRESIDENT'S REPORT** - MICHAELA EPSTEIN



Over the 2018-19 period, over 17,000 individuals have taken part in events and services provided by The Mathematical Association of Victoria. With a membership of over 850 institutions and nearly 600 other individuals, MAV is an essential part of mathematics education

in Victoria. It is an honour to have served another year as President for the Association and the vibrant community it represents.

You might ask why, in this time of tech innovation and easy access to information and ideas, a subject association matters? Access is not enough. By being at the nexus of researchers, innovators and practitioners, MAV provides a space for great ideas and the best information to be heard.

We know that learning and teaching mathematics is in no way easy. Australia's Chief Scientist, Dr Alan Finkel, underscored this complexity and the importance of mathematics when he said:

'Maths first – maths as the language of science. Maths as the language of progress! Maths as the pre-requisite for learning, and for life'.<sup>1</sup>

MAV brings together a community of people who care deeply about mathematics education, how it is viewed in society and how young people perceive themselves as learners. In this report, I am pleased to share just a few highlight events and activities from 2018-19 that demonstrate this. These show the breadth of work undertaken by MAV in relation to the four goals outlined in the 2018 to 2020 Strategic Plan.

## 2018-2019 HIGHLIGHTS

Goal 1: Ensure that MAV provides benefit and value for all mathematics educators, with all education segments across Victoria supported appropriately.

Now in its third year, in August 2018 MAV hosted another popular Girls' in STEM event. The day brought together Year 9 and 10 girls with women who have forged impressive careers in the STEM industry. An opening address was delivered by Dr Sue Barrell, Chief Scientist and Group Executive for Science and Innovation at the Bureau of Meteorology, with other STEM professionals sharing their stories and strategies for career success throughout the day.

Free Student Membership became available in 2018 for all pre-service teachers in Victoria who will be teaching mathematics. The membership enables these new professionals to get access to resources and support at what is a pivotal stage of their career.

On the back of this initiative, we are delighted to have welcomed Christiana David, a pre-service secondary teacher as a volunteer member of the MAV Membership, Marketing and Communications Committee.

MAV also completed an in-depth member survey in late 2019 that will inform much of its membership strategy over the coming few years. This will enable MAV to respond to the changing pressures in the association sector and specifically the needs of MAV members. It will be useful in ensuring a positive experience for members in future across the state and within different sectors of mathematics education. This is a pivotal piece of work for the Association at this time.

Goal 2: Develop and nurture high-profile partnerships that lead to improvement in the quality of mathematics education, and promote the fundamental importance of mathematics in society.

The 'Maths Collaborative' is a two-year program in whole school primary mathematics education that has been established with The University of Melbourne's Graduate School of Education. This is a partnership that expands our work beyond the existing primary mathematics conference. The Maths Collaborative kicked off in February 2019 and has a cohort of 39 primary schools.

MAV has continued to work with the Department of Education and Training Victoria on a number of projects. During the year, MAV supported the Department on the development of the Mathematics Curriculum Companion. In addition, together with Deakin University, the University of Tasmania, and Victoria University, MAV submitted a successful tender for a suite of numeracy content, focusing on numeracy across the curriculum from Birth to Year 10.

Goal 3: Strengthen MAV's position as a key stakeholder in mathematics education through advocacy and engagement with key stakeholders.

The Association has put together the first in what will be a series of position papers about the state of mathematics education in Victoria. The initial paper released in early 2019 for initial feedback, addresses key priorities notably raised by members via questionnaires and discussions over the last few years. It serves as a starting point for discussion and action by Government, school leaders, teachers and other stakeholders.

At the start of 2019, MAV commenced a marketing and communications review. This work will evaluate existing communications with members and non-members. In doing so, MAV will be better placed to make effective use of its resources to reach out to the community and to communicate the services and support offered.



Goal 4: Streamline and improve MAV's operations, management and governance.

Behind the work outlined above – and much more – is an incredible team of staff, led by CEO Peter Saffin. The dedication of this team cannot be overstated, and I thank them for all that has been achieved. Over the past 12 months, the team has also welcomed Danijela Draskovic (Secondary Consultant) and Rachel Spinks (Finance Officer) on board.

Alongside the MAV staff, Council has had a productive year. We have been fortunate in having new Councillors join us: Kylie Slaney, a secondary mathematics and STEM teacher, and Kate Copping, a researcher in leadership and teacher professional learning in mathematics. Max Stephens, research fellow at the Melbourne Graduate School of Education, re-joined as Secretary after a period of leave from Council.

A large area of focus for Council throughout 2018-2019 has been on the development of a proposed new Constitution for the Association. MAV engaged Mills Oakley Lawyers who are experienced in developing constitutions for the not-for-profit sector. Mills Oakley guided Council through a very thorough process to ensure that the proposed new constitution is legally sound and will cater for the needs of MAV and its members into the future. The new constitution will ensure that MAV is well-positioned to run as a modern and progressive organisation and meet its governance requirements more effectively and efficiently.

In addition to these developments, the year ahead promises to be just as comprehensive as the year just passed. I encourage you to use the Association to further your own learning and professional connections; to aid students' mathematical development; and to help strengthen MAV so that it may be even better for all educators across Victoria.

## **CEO'S REPORT** - PETER SAFFIN



2018 was again a positive and successful year for MAV. The entire organisation worked in many areas to consolidate previous growth and success, with the result being a challenging, but thoroughly enjoyable and rewarding year.

All services either performed at a

level equivalent to the prior year, or in some cases expanded further. Here are some highlights:

In-school consulting continued to grow, and with support and training in place to ensure external consultants could deliver according to MAV's value proposition, we worked across more schools than ever before.

Professional learning increased in attendance, particularly with the introduction of online sessions funded through the Victorian Department of Education and Training Strategic Partnerships Program. With this funding we also recorded a number of keynotes and workshops, allowing access to all mathematics educators across the state who may otherwise not be able to attend these events first-hand. Feedback was overwhelmingly positive in this regard.

For the second year the Primary and Early Childhood Mathematics Education Conference was delivered in collaboration with the Melbourne Graduate School of Education, The University of Melbourne. Again it was a great success, and as our relationship strengthens we have developed a new program; The 'Maths Collaborative' is a two-year whole school development program for primary mathematics education, which now has 39 schools enrolled and is underway delivering value across these schools in Victoria. This very exciting program has the potential to expand into further intakes in future years. Through this we are working directly across more schools than ever before.

MAV continues to work with other partners including (but not limited to!) Department of Education and Training, VCAA, Felstead Education, the Victorian Responsible Gambling Foundation, the Australian Academy of Science, and Deakin University. Each project provides a unique opportunity for MAV to deliver value for mathematics education. I would particularly like to thank these partners and all others for their support, as we are able to expand our impact through such relationships.

In 2018 MAV's revenue declined slightly, but the budget profit target was delivered. The decline in revenue was mainly due to a shortfall in Annual Conference income, and income from externally funded projects.

Efficiencies and cost savings countered the potential loss in profit to ensure the budget surplus was still delivered, with a surplus of \$35,939 achieved.

At the previous AGM in 2018, MAV launched its three-year strategic plan. Throughout the remainder of the year I have worked to implement various strategies in relation to this. This work often takes place in collaboration with the Council, staff and committees. Various initiatives enable MAV to plan and prepare for the future. We are focusing on four areas: membership, partnerships, advocacy and operations, including governance.

A large part of the implementation in 2018 was focused around governance. This saw many new policies come to fruition including the very important child safe policy, a reserves policy, and delegations policies amongst others. We also saw the implementation of a new risk register, and risk appetite statement which will help MAV ensure it is delivering its programs and services within an environment of appropriate and considered risk management. This does not mean avoiding risks but making smarter decisions for the Association to move forward, with an understanding of the risks in each situation.

A Council Charter was also implemented, providing structure, guidance and policy for the daily functioning of the Council itself. All of these activities lead to stronger governance, and therefore ensure that members fees, and other income the organisation receives is used to deliver value back to mathematics education. Good governance also provides a framework for creating a modern and positive workplace for the staff.

One of the largest tasks undertaken in 2018 was the development of a new constitution, which modernises Council processes and the Association's framework of operation for the future. Although it may seem like a laborious task, it has the potential to add an enormous amount of value as MAV prepares for the future. As the Council have now finished dealing with a number of governance framework issues, the focus will shift more strategically to the future, including advocacy.

It is an exciting time for the organisation and I look further to working with the Council, Committees and staff throughout the coming year. I would also like to thank the Council for their supportive and constructive approach in working with me and the office. It has been fantastic to work as part of such a great team at all levels of the organisation.

Finally, I would like to thank the staff for their dedication and hard work throughout the past year. It is a pleasure to work with such a proactive and engaged team, who understand what MAV is about and how they can each individually contribute as part of the MAV team.

## **MAV PERSONNEL**

Chief Executive Officer	Peter Saffin
Mathematics Education Consultants	Jennifer Bowden (Primary)
	Ellen Corovic (Primary)
	Helen Haralambous (Secondary)
	Danijela Draskovic (Secondary) (from July 2018)
Membership Officer	Michael Green
Administration Assistant	Darinka Rob
Events Manager	Jacqui Diamond
Marketing	Louise Gray, Stitch Marketing
Finance Officer	Rachel Spinks, Carruss Consulting

The Council and staff would like to thank all contracted consultants and the generous volunteers that have supported MAV in delivering its program and services. There are too many to name here, but your support is greatly appreciated.

## **FINANCE**

## **COMMITTEE MEMBERS**

Juan Ospina Leon, (Treasurer/Convenor), Daniel Craine (independent finance expert), Max Stephens, Peter Saffin (Executive Officer)

## KEY ACHIEVEMENTS

- Development of a new reserves policy to underpin financial sustainability
- Continued work on developing performance and liquidity KPIs
- Currently collating and presenting long-term financial trend data to help inform future decision-making.

The Finance Committee continued its work as an advisory committee, providing guidance, support and monitoring for many aspects of the Association's financial activities. The committee followed this work plan for the year delivering on a number of valuable pieces of work.

Work focused around developing a deeper understanding of MAV's current financial position and history. Much data has been collated in regard to the balance sheet and profit and loss statements, and this has been used to create data visualisations that allow us to see the trends, and therefore to monitor for the future financial situation. The Finance Committee and the Council are now able to be more in sync with the financial situation for the Association, and to ensure that future investments and expenditure can provide best value for members.

A reserves policy was developed, with the reserves being defined as the lowest bank balance over the previous 12 months. As of the end of January 2019 financial year, MAV now has \$235,839 of reserves, with a target operating reserve of \$600,000. Having in future a reserve of approximately this value, will ensure that MAV can continue to operate successfully in the event of a sudden increase in expenses, a one-time unbudgeted expense, anticipated loss in funding, or uninsured losses. MAV is well on the way to achieving this target, although it may take a few more years to reach this point. In the meantime, MAV is well-positioned compared to a number of years ago when reserves had been used during some tough years. Now that these reserves have been identified and increased, there is an investment policy and process for placing the reserves into rolling term deposits to increase interest-based income for the Association.

The committee is now working on performance KPIs, and KPIs for liquidity which can indicate whether MAV is heading in a direction which might create financial stress. The aim of this work is to help monitor the financial position and therefore allow MAV to respond proactively to any forthcoming events. This would include positive events such as opportunities to invest in the future of the Association, as well as to avoid negative situations.

## MEMBERSHIP. MARKETING AND COMMUNICATIONS

## **COMMITTEE MEMBERS**

Kylie Slaney (Convenor), Jim Spithill, Peter Karakoussis, Michaela Epstein, Dan Cloney, Michael O'Connor, Peter Saffin (Executive Officer)

## **MEMBERSHIP**

## **KEY ACHIEVEMENTS**

Success in growing free pre-service teacher membership launched the prior year, leading to growth in individual membership category

- Schools membership down slightly on prior year, but consistent with 2016
- Membership survey completed in 2018 as part of the strategic plan implementation, and to inform future membership strategy
- Continued work on building the MAV brand through marketing and communications
- Expanded impact and events in regional areas.

	2014	2015	2016	2017	2018
INDIVIDUAL MEMBERS	454	523	514	461	583
Associate members	33	27	29	27	28
Early childhood centres	0	9	9	0	0
P-12 schools	145	137	135	133	137
Secondary schools	319	310	315	322	322
Primary schools	458	376	382	403	395
INSTITUTIONAL MEMBERS	955	859	870	885	871
TOTAL	1409	1382	1384	1346	1454

The MAV Council endorsed the launch of free Pre-service Teacher, (University Student) Membership starting from 2018. This included secondary mathematics teacher specialists and all primary and early years teachers who are required to teach mathematics. As pre-service teachers are the basis of MAV's future membership, it is critical that this important group are provided support and services to ensure they are highly prepared for a future in the classroom. This significant change will provide an opportunity for MAV to engage with all pre-service teachers during their studies, and for pre-service teachers to access member benefits and services from MAV. The growth in individual memberships in 2018 was primarily due to this new group of members expanding. Events for preservice teachers are being planned for 2019.

Schools membership dropped very slightly in 2018 compared to the prior year. Overall there was a small increase

in P-12 school memberships, secondary schools were flat, and primary schools dropped slightly. This was disappointing as much hard work was done to recruit members at events and through various other means. Work will continue in this area with the aim of building membership further in coming years.

In this regard at the end of 2018 MAV designed and implemented a large member survey to collect both demographic information, and valuable feedback from both the member base and mathematics educators across all sectors in the state. The committee is now reviewing this information in order to begin making decisions upon future membership strategy. This data along with other data collected will eventually inform a membership retention and acquisition strategy for MAV. Such a strategy will enable MAV to ensure that it uses its resources to target membership in segments where MAV is able to have maximum impact and to again grow membership in various targeted categories.

Also during 2018, MAV moved forward in providing its services more broadly across the state. It is recognised that the high cost base of delivering to regional areas means that previously MAV did not deliver as many benefits to members outside of the metropolitan area. This year, MAV expanded games days and VCE professional learning into more regional areas. It also delivered a regional network day in the Mildura area which was attended by 180 mathematics educators. Further, Strategic Partnerships Project funding from the Victorian Department of Education and Training was used to provide online PD, which was very well attended by mathematics educators from regional schools. Similar funding was used to record several keynotes and make the videos available for schools across the state, providing access to those who could not attend the events at which recording took place. This expansion of services is valued highly by those in regional areas, and MAV must continue to do further work in this area.

Within the metropolitan area, MAV also stepped up to provide access to professional learning in more locations, rather than from its base location in Brunswick. This allowed mathematics educators across Melbourne to engage further with MAV.

In 2019, the Committee will focus on its work in relation to the membership goals in the strategic plan, which will deliver value to all MAV members and mathematics educators across the state.

Work is also ongoing on the introduction of a new association software management system. This system will allow more personalised and professional communications and services to our membership base and all mathematics educators. We look forward to its implementation during 2019.

## MARKETING AND COMMUNICATIONS

## **KEY ACHIEVEMENTS**

- 'Mavlist' newsletter rebranded as 'Matrix'
- Matrix newsletter subscribers exceeded 20,000 individuals
- Professional photography used to capture and communicate success at events.

Throughout 2018 MAV continued to update its communications content including the website, MAV guide, catalogues and various other promotional pieces. The website was refined with some new sections, with old content removed and updated content added across various sections. This was in anticipation of preparing the content to go into a new website template as part of the implementation of a new association software management system for launch during 2019.

Matrix newsletter continues to be a valuable source of information for mathematics educators. The focus of Matrix is to provide information about MAV services and events, to demonstrate MAV's value to the member base and other mathematics educators, and to generally share information of value. This information includes the events and resources from other organisations, and general articles for professional reading and development. As our member base is interested in a number of things, MAV attempts to share a range of information to appeal to the broad audience of subscribers.

As part of the MAV strategic plan a marketing and communications review is also now underway. This will inform how MAV can best use its resources to deliver the right messages to our audience. It will inform how we can optimise the use of social media in future, and other tools to engage with each and every member. In order to maintain and grow membership MAV must communicate carefully with its various demographic groups, across all sectors of education with which it engages.

Following on from the review, we expect a number of strategies to be recommended. These are expected to include a new content strategy, refined newsletter format, improved website structure to increase engagement and bookings, and personalised communications, special interest groups and online discussion groups which will then be implemented over time to streamline and improve our communications to members.

MAV has also begun work on a thought leadership paper which outlines many of the key areas of mathematics education that MAV would like to engage with over coming years. This is the first of a number of papers that MAV expects to publish in this area. This will help expand MAV's work in advocacy for mathematics education, and the paper will open up discussions with various stakeholders with the aim of engaging them further in the work of the Association.







## MATHS ACTIVE SCHOOLS (MAS)

## **KEY ACHIEVEMENTS**

- One new 'Maths Active' school engaged during 2018, with a total of 29
- Maths Active Schools hosted and supported MAV events
- Maths Active Schools program actively supported by a Primary Mathematics Education Consultant and also now a Secondary Mathematics Education Consultant.

In 2018, one new school was accredited as a Maths Active School. Congratulations go to Croydon Hills Primary School for their hard work in preparing for their accreditation and adding value to their entire school community through a strong engagement with mathematics education.

MAV was pleased to continue its support for Maths Active Schools in 2018. Maths Active Schools are recognised for effective teaching and learning practices. Such schools place student learning in mathematics at the forefront of school business. While each school's teaching and learning is unique, the common theme is a highly effective mathematics program that promotes the depth and breadth of the subject both within the classroom, and across the school community.

School support materials were released twice a year for Maths Active Schools to use within their newsletters and classroom. Our renewal process survey showed that these resources were still a highly valued asset that the school could use to continue to meet its Maths Active Schools requirements.

During 2018, support for the program internally at MAV was expanded. Ellen Corovic, who has been responsible for the program since its implementation, continues to support primary schools and is taking a high-level view of the entire program. To ensure that we continue to evolve the program to be suitable for secondary schools, MAV's newly appointed Secondary Mathematics Education Consultant, Danijela Draskovic took responsibility for much of the year for the content and delivery of the program within secondary schools. We hope that this approach will allow us to expand and tailor the program to engage with more secondary schools. Currently the majority of schools engaged are primary schools, although we believe there is much potential for further reach.







Peter Saffin, MAV CEO, presents Croydon Hills Primary School with their Mathematics Active School plague.

## PROFESSIONAL DEVELOPMENT

## **COMMITTEE MEMBERS**

Peter Karakoussis (Convenor), Claire Delaney, Elizabeth Burns, Duncan Symons, Trish Jelbart, Johnson Alagappan, Kerryn Driscoll, Helen Haralambous (Executive Officer)

MAV's professional learning (PL) is focused in four key areas:

- In school professional learning, including consulting
- General professional learning across all levels, including online and face to face sessions, including regional mini conferences (Mildura in 2018)
- VCE professional learning program
- Primary Mathematics Education Conference, in partnership with Melbourne University Graduate School of Education.

## IN SCHOOL PROFESSIONAL DEVELOPMENT

## KEY ACHIEVEMENTS

- 190 days of primary mathematics professional learning delivered
- 10 days of secondary mathematics professional learning delivered
- MAV Education Consultants (MECs) and contracted primary consultants were engaged to run professional learning workshops in a number of schools, at all levels, from all sectors and from all regions.

Primary Mathematics Education Consultants delivered the equivalent of 190 days of primary mathematics professional learning. These include schools requesting the minimum 1.5 hours to half day, to full day and a number of schools requesting multiple days (including a couple of schools with 16 or 17 days of professional learning throughout the year)

Secondary Mathematics Consultants delivered the equivalent of 10 days of secondary mathematics professional learning. The most common uptake from secondary schools was the minimum 1.5 hr slot taken as part of the afterschool Maths meeting slot. One school requested a series of 3 half days, taken over 3 consecutive fortnights and one school requested two consecutive days.

MAV contracted consultants delivered workshops to two secondary schools who requested consultancy by an assessor for their whole cohort of Year 12 students during the school day as opposed to the MAV's revision lecture program held during school holidays.

Similarly, MAV contracted consultants delivered workshops to a network of schools who requested consultancy by an assessor(s) for their whole cohort of Year 12 students during the school day.

## GENERAL PROFESSIONAL DEVELOPMENT

## **KEY ACHIEVEMENTS**

- Participation included over 2000 mathematics educators, an increase in participation on the prior year
- Expanded range of topics to appealed to a wider member base, including regional educators
- At MAV, the MAV Education Consultants and contracted specialist consultants delivered on a variety of topics, across all levels and included webinars (delivered live and simultaneously screened via Polycom)
- The topics presented were based on prior teacher feedback, including feedback from MAV18.

The following lists a number of sessions delivered by MAV during the past year:

### F - 10

- HITS or Miss? Online
- Identifying and providing for mathematically promising students (Vic Association for Gifted and Talented Children): Live and Online
- Making Confident Maths Teachers How to help all students to understand common fractions and decimals
- Strategies for differentiation in the mathematics classroom

## **Primary**

- Algorithmic thinking across Primary Years: Webinar
- Let's Get Started! Using games to promote fluency and reasoning
- How digital technologies can enhance the teaching and learning of mathematics
- Let's get started! Using games to promote fluency and reasoning: Live and Online
- The importance of developing children's counting skills: The move from rote to rational counting: Webinar
- Tip of the iceberg how to find rich and challenging tasks for your teaching: Webinar
- Lifting student engagement and learning in algorithmic and locational thinking
- Mathematical tasks and lessons to inspire thinking
- Using picture story books to inspire mathematical thinking
- Let's get started! Using games to promote fluency and reasoning: Webinar

## Secondary

- GeoGebra in the classroom: Live and Online
- Algorithmics (HESS): Live and Online
- Maths Games to engage students or for Maths Games Days
- Texas Instruments: Using TI-Nspire CX CAS calculator, for teachers new to VCE Maths



- Texas Instruments: Using TI-Nspire CX CAS calculator beginners (Year 10, General Maths and Further Maths): live and online
- Using Maths Games to engage students: live and online.

The following whole day PD Days were held, with a variety of workshops:

- Mildura Mathematics Education Conference 'Critical and Creative Thinking'. This conference was organised in collaboration with the network of schools in Mildura and hosted by Merbein P-10 College and was attended by 190 primary and secondary teachers from the region.
- Ian Lowe presented a series of whole day workshops entitled 'Making Confident Mathematics Teachers' for Junior Secondary Mathematics teachers, including workshop titles:
  - Making Confident Maths Teachers Expanding and factorising, both linear and quadratic
  - Making Confident Maths Teachers Unlocking algebra (functions and equations) through handson activities to generate number patterns
  - Making Confident Maths Teachers How to build understanding and skills in the practical topics of ratio, scale, proportion and percentage.
  - Making Confident Maths Teachers Key teaching ideas from Measurement, Geometry and Probability

## VCE PROFESSIONAL LEARNING

## **KEY ACHIEVEMENTS**

- Total attendees at VCE events for 2018 was 883
- Four whole day VCE PD days, with a total of 475 attendees, at:
  - Melbourne University
  - La Trobe University, Bendigo
  - La Trobe University, Mildura
  - Federation University, Gippsland
- Four after school SAC workshops, with a total of 132 attendees, at:
  - Terang
  - Lalor
  - Burwood Methods
  - Burwood Further and Specialist
- Seven after school Meet the Assessors workshops, with a total of 276 attendees, at:
  - Geelong
  - Horsham
  - Williamstown
  - Burwood Methods
  - Burwood Further and Specialist
  - Wangaratta
  - Terang.

The highly in demand VCE PD series was very successful in 2018, with whole day workshops again being offered, along with the after school Meet the Assessors and SAC workshops. These were offered in all 4 DET regions along with metropolitan workshops again offered in all 4 regions.

La Trobe University, Mildura was a new venue for a VCE PD Day in 2018, instigated by La Trobe University due to the similar day held at their Bendigo campus and from the partnership built with their staff. However, numbers in Mildura were low and didn't warrant MAV running this extra day in 2019.

Despite the fact that 2018 was the third year of the Revised VCE study design (after a study design that had been in place for 10 years), many teachers were still not familiar with all aspects of the revised study, new concepts and new assessment requirements. The workshops in Burwood are very much in demand hence held over two evenings to allow use of the PLC lecture theatre.



## PRIMARY MATHEMATICS EDUCATION CONFERENCE

## **KEY ACHIEVEMENTS**

- Increase in delegates, positive feedback on sessions and engagement
- Improved financial outcomes
- Strengthening of reputation for both partner organisations involved.

At the end of Term 2, 2018, MAV held its second Primary Mathematics Education Conference. The event was an outstanding success with an increased number of delegates (Day 1: 163, Day 2: 123) responding very positively to the engaging and high-quality sessions. The conference is a collaboration between MAV and the Melbourne Graduate School of Education (MGSE), at The University of Melbourne. Speakers are hand-picked and showcase the work of both MAV and MGSE Mathematics Education Group, linking research to practice and providing schools with resources and ideas to go and implement immediately. The 2018 theme was 'Critical and Creative thinking in the Mathematics Classroom', and speakers brought this to life.

The two-day event caters for mathematics leaders on Day 1, and teachers on Day 2. Teachers with all levels of experience attended. The event is designed to grow the confidence and expertise in teaching primary mathematics regardless of experience. The sharing of ideas, and networking opportunities set this event apart. Also in attendance were a number of staff from the Victorian Department of Education and Training (DET), including those from the STEM unit and a number of Mathematics and Science Specialists. DET were a key sponsor of the event.

Representatives of VCAA also attended. Various interstate guests also returned to enjoy a second year of engaging workshops.

This year there was a dedicated Early Years stream, which focussed delegates who were interested in this area on issues directly relevant to them. This was a great value add for delegates. Further highlights included Dr Paul Swan giving a practical and engaging keynote on Day 1, while Felicity Furey engaged Day 2 delegates in her keynote on why developing critical and creative thinking early in the primary years is so important for our students' career success in STEM fields.



MAV thanks the staff of Melbourne Graduate School of Education for their partnership in delivering this event. MAV also thanks the DET as the Major Sponsor for their support in making this event such a success.





Education and Training

## What did attendees say about this event?

- Excellent presenters who provide outstanding resources and willingly share their knowledge.
- Engaging and practical sessions and resources.
- It was a worthwhile conference to meet and listen to the knowledge and expertise of presenters and colleagues.

The conference provided an excellent forum to learn about and discuss current, research-based information. It provided a range of workshops led by knowledgeable and approachable presenters. I was able to walk away excited about sharing some new ideas and resources with colleagues.

## **MAV18 ANNUAL CONFERENCE**

## **COMMITTEE MEMBERS**

Ann Downton (Convenor), Leicha Bragg, Johnson Alagappan, Trish Jelbart, Thomas Moore, Michael O'Connor (commenced July 2018), Sally-Anne Polson, Leigh Thompson, Danijela Draskovic (MAV staff, commenced November 2018), Peter Saffin (CEO), Jacqui Diamond (Events Manager)

## **KEY ACHIEVEMENTS**

- Outstanding program and range of keynote presenters
- Live video recording of selected keynotes
- Implementation of effective parking strategy
- Improved catering standards

The 55th MAV (MAV18) annual conference 'Teachers' Creating Impact' was a great success. MAV18 was held at the La Trobe University, Bundoora, from 6 – 7 December 2018 and focused on best practice, new ideas, and innovative approaches that educators can use as they strive for excellence in teaching and learning.

Our major goal was to increase attendance numbers, particularly paying delegates. A total of 1526 participants attended the conference, which was a decrease of 6% from 2017 (1623), but an increase of 9% from 2016 (1399).

This total comprised of:

- 1356 paying delegates and presenters
- 32 complimentary registrations
- 121 exhibitors
- 13 volunteers, and
- 4 administration staff

Unfortunately, we fell short of our projected target figure for paying delegates (1512, same as for 2018) by 156. This was a decrease of 7% from 2017 (1464) but an increase of 25% from 2016 (1082). Our biggest decline in paying delegates occurred in the member non-metro area with a reduction of 59 delegates (30% from 2017). The analysis of primary and secondary delegates would assist us to determine whether other conferences (including the June MAV primary conferences) were contributing factors to these figures.

We need to acknowledge that 2017 was an exceptional year, as the Australian Catholic University (ACU) did not hold their annual conference, which may be the reason for our increased numbers. To determine whether MAV17 was an anomaly we will need to look at the results from MAV19 conference. The increase in popularity of the MAV Primary conference in June may mean that schools do not have sufficient funds in their professional learning budgets to accommodate both conferences, or their PL funds may have been used in other

KEYNOTE	YEAR LEVEL	TITLE
THURSDAY 6 DECEMB	ER	
Nicola Yellend	Early years	Making early mathematical explorations count
James Russo	Early primary	The challenges of teaching with challenging tasks
Leonie Anstey	Early primary/early secondary	Teachers creating impact
Lynne McClure	Early primary/early secondary	What goes around doesn't always have to come around
Robyn Jorgensen	All levels	Bringing about success in mathematics for students in the margins: What makes for good practice.
Rob Proffitt-White	All levels	Mathematics capability clusters
FRIDAY 7 DECEMBER		
Tracy Muir	Early primary/primary	Leaving nothing to chance: Achieving impact through best practice in mathematics education
Matt Skoss	Early primary/secondary	Lifelong impact: Playfulness and curiosity
Eddie Woo	Secondary	Principles of engaging mathematics teaching
Amie Albrecht	All levels	Developing mathematicians through problem solving
Alan Finkel	All levels	The prerequisite for prosperity
Tom Lowrie	All levels	STEM-focused engagement and impact: Capacity building through nation-wide and localised learning programs

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ways in 2018. It will be helpful to examine the breakdown of primary delegates attending the MAV annual conference since 2016.

The early bird rate introduced in 2016 was again promoted in 2018 but was only taken up by a small number of delegates. As a committee we decided to keep the registration fee for delegates at 2017 prices but to include the cost of the daily parking in the registration, and to retain the presenter fee of \$89, introduced in 2017.

There were six keynotes per day and the keynote speakers were selected for their expertise in early years, primary, secondary, or across all levels and linked to a key aspect of our conference theme 'Teachers' Creating Impact'. Our international presenter this year was Lynne McClure from Cambridge University Press. The keynotes and focus of their presentation are presented in the table on page 13.

The keynotes provided a mix of current research, thought provoking ideas and practical implications for teacher practice. The feedback from delegates was positive and many commented on how much they enjoyed the range of presenters:

I felt the Keynote was reinvigorating and encouraged me to reflect on my personal teaching philosophy and if my practice and actions match with my vision  $\frac{1}{2} \int_{-\infty}^{\infty} \frac{1}{2} \int_{-\infty}^{\infty} \frac{1}{2}$ 

Excellent, engaging and thought-provoking

Eddie is an amazing speaker. He really challenged my thinking about teaching maths and going beyond the text-book

We received funding through the Strategic Partnership program (DET) to video record four keynotes and one workshop as a promotional activity, particularly to regional schools and others that could not attend.

Once again we were privileged to have a wide variety of presentations for our delegates to attend and this year it was exciting to see once again, new presenters at the conference. In addition to the 12 keynotes there were 267 sessions offered across the two days to our 1356 delegates this year. Initially there were 342 sessions advertised in the synopsis, but due to a range of reasons 47 presentations were cancelled.

Presenters were invited to contribute a paper to the Conference Proceedings and to increase the number of papers we offered a mentoring process, which was taken up by two presenters. It was produced online, and the format reflected the conference theme and style of the MAV publications. I am extremely grateful to Gail Fitzsimons (Editor) and her team from Melbourne University Mathematics Education for giving their time and expertise to undertake the editing of the MAV18 Proceedings. Thanks to the team of reviewers, both internally and externally, for their thoughtful and professional feedback to presenters. Moving



Eddie Woo delivered a keynote and workshops at MAV19.

forward, the committee needs to consider the viability of the Proceedings, given the decline in the number of papers, and cost, relevance and time involved to produce it.

The marketing strategy implemented in 2017 to increase the professionalism of the conference, raise its profile, and increase the number of delegates was implemented again in 2018. The theme of MAV18 was launched at MAV17 Happy Hour, and we began marketing 10 months prior to the conference using E-Newsletters, advertisements in Common Denominator, MAV social media and the conference website. This strategy will be adopted again in 2019, with some minor changes.

Improved professionalism was again the focus in 2018, particularly in regard to parking and catering. Delegate survey responses indicated that the majority of the respondents rated the conference content, registration process, parking, and food and beverage as excellent or very good. Based on delegate feedback we will continue to implement new initiatives to improve the conference experience for all in 2019.

Financially, the conference did not receive the outcome we expected. We fell short of the forecast profit even though there were reduced expense costs in several areas. The shortfall was attributed to the combined drop in income from the member non-metro and non-member sectors, and in our sponsorship and exhibition sales.

I would like to sincerely thank Jacqui Diamond (Events Manager) and Peter Saffin (CEO), our hardworking conference committee, MAV staff and all those who committed their time, energy and expertise to presenting such high quality and thought provoking sessions.

- Ann Downton, Convenor,

## **MAV18 ANNUAL CONFERENCE**











## STUDENT ACTIVITIES

## **COMMITTEE MEMBERS**

Thomas More (Convenor), Janeane Anderson, Fiona Bashford, Kelly Gallivan, Mark Gleeson, Allason McNamara, Lauren Newton, Andrew Nordoff, June Penney, Kylie Slaney, Julie Tillyer, Michael Westbrook, Jennifer Bowden (Executive Officer)

## MATHS TALENT QUEST

## **KEY ACHIEVEMENTS**

 A total of 677 entries from 82 schools across Victoria and Tasmania were submitted into the 2018 Maths Talent Quest.



- Judges from across Australia came to the MAV office to participate in judging the National Maths Talent Quest competition.
- There were 24 Victorian entries into the National Competition with 7 of these entries winning first place at the national level.

The Maths Talent Quest is a fantastic opportunity for students from across Australia to explore an area of mathematics they are interested in. Entirely student led, each participant chooses an investigation or a personal passion to research. In completing the task, students are challenged by exploring all of the mathematics related to their topic of choice. The open-ended nature of these projects encourages students to experience Maths through real world applications which extend them far beyond the bounds of the curriculum.

Many schools run Maths Talent Quest as a project for all students to participate in. Students may either complete their projects individually, in small groups, or as a class. From this, the best 6 entries per year level for each category are entered into the State Maths Talent Quest to be judged by a large number of teachers and pre-service teacher volunteers. This week is always buzzing, as everyone involved participates in fantastic professional learning through seeing and reading about ideas that students from other schools have come up with.

The top entries from the State Maths Talent Quest are then entered into the National competition which is run by judges from all across Australia. MAV once again led the way, by organising and hosting the National Competition during September of 2018. Victorian students performed exceptionally well on the day, with more than 400 entries receiving distinctions or high distinctions at the highest level.

The committee would like to take this opportunity to thank all of the teachers, volunteers and MAV staff who have dedicated their time to making Maths Talent Quest a huge success once again. 2018 saw more schools enter the competition than ever before, and it is with the help and support from all these people that we look forward to Maths Talent Quest becoming even bigger and better in 2019!

Many thanks to our major sponsor for the MTQ, La Trobe University.





## **VCE REVISION LECTURES**

## **KEY ACHIEVEMENTS**

- Well attended with over 719 students participating state-wide, with positive feedback received
- Lectures held in all four regional areas and four metropolitan locations (Warrnambool, Horsham, Wangaratta, Sale, Glen Waverley, Taylors Lakes, Mt Eliza and Yarra Valley & Yarra Ranges)
- Increase in group bookings by schools
- Venues with highest attendance were Glen Waverley (204 attendees at 3 lectures), Mt Eliza (101 attendees at 3 lectures), Taylors Lakes (176 attendees at 3 lectures)
- Quality of the revision booklets provided to students was improved, and in colour for the first time.



The VCE Revision Lectures provide the opportunity for VCE students to have extra preparation leading into the VCE Mathematics exams (Further Mathematics, Mathematical Methods and Specialist Mathematics). These sessions were presented by highly experienced and enthusiastic teachers, all of whom have current VCAA assessing experience (in the study

presented). Attendance was slightly lower than in 2017, when over 900 students attended.

Taylors Lakes was a new location for western metropolitan region in 2018. This had predominantly large group bookings from the 4 key secondary schools in that network, and came about from a request from the VCE network in that region. It was supported by the Principals and Mathematics Coordinators in the network.

## MATHS GAMES DAYS/SCHOOL BASED FAMILY MATHS AND STUDENT ACTIVITIES

## **KEY ACHIEVEMENTS**

- The MAV supported 12 Maths Games Days across Victoria.
- A total of over 2000 students participated.
- MAV streamlined sponsorship, exhibitions and donation of prizes for these days to reduce the workload on teachers, and increased quality of the prizes delivered.
- 2 new venues running Games Days introduced in 2018. Throughout 2018, there has been a continued interest in Student Activities from our regional areas. We have been able to provide support through webinars and MAV published resources.

We welcomed both Waverley Christian College (Narre Warren South) who hosted the second Year 7 Games Day and Kilmore Primary School, a regional school who successfully hosted a Yr 5/6 Games Day as a part of the Statewide Games Days program.

The State-Wide Games Days have continued to be extremely popular providing students with an opportunity to develop their mathematical talents and thinking in a setting where maths is regarded as fun and worthwhile. Rigorous activities addressing the proficiency strands across the Victorian Curriculum are created and played as problem solving tasks, and games are completed by teams of four.

School hosts should be congratulated on running fantastic events that challenge students! At these Games Days while students are busy, MAV staff have been able to provide teachers with relevant professional learning, highlighting current best teaching practice. Teachers also had an opportunity to meet colleagues from other schools, to inspect displays of teaching resources.

In 2019 Derrimut Primary School will host the first Yr 3 Games Day event, Catholic Ladies College Eltham will host a 3rd concurrent year 7 event and MAV in partnership with RMIT will host the Year 11/12 event.

In 2018, schools became more autonomous in running their own Family Maths Nights and school-based student activities. MAV consultants have been able to support both metro and regional teachers to build their capacity to create and run family and student-based activities in their school through online professional learning and MAV published resources.

The MAV Primary Education Consultants were also contracted to present Family Maths Nights. The MAV Secondary Education Consultants were contracted to present a regional Maths Games Day, including for Year 8 and 9 students in the Gippsland region (in partnership with Federation University) and a local Maths Games Day as part of National Numeracy week. These events reached across a large number of families and students of varying ages and varying school sectors and regions (both metropolitan and regional Victoria).



Year 10 Games Day participants.

## **GIRLS IN STEM**

## **KEY ACHIEVEMENTS**

- Increase in attendance and strong interest from schools
- Excellent speakers and role models provided a variety of success stories
- Video of speakers available on MAV website to allow broader access and impact.

In August 2018, 297 students from 27 schools gathered at Ivanhoe Girls' Grammar for MAV's Girls in STEM Day. Various industry partners supported the event, with Ford acting as Gold Sponsor. This is the second year that MAV has run this event and it won't be the last! The day was inspiring and it's fair to say that students' attitudes to STEM won't ever be the same. STEM is infinitely interesting, and the career possibilities are sky high.

Students heard from an impressive line-up of women:

- Dr Sue Barrell, Chief Scientist and Group Executive, Science and Innovation, Bureau of Meteorology
- Taryn James, Aerodynamicist, Ford
- Chivonne Hollis, Architect, CHT Architects
- Sarah Cirillo, Mechanical Engineer, Thales
- Sharon Lai, Economist, Reserve Bank of Australia
- Kirsten Pilatti, CEO, BCNA (Breast Cancer Network Australia)
- Kimberley Whitehead, Civil Engineer, VEC

Videos of these inspiring speakers are available for use in schools through the MAV website, allowing access to a broader base of students and teachers.

It was fascinating to hear the career paths of these women, and even more intriguing to hear about the depth and importance of their roles in adding value to society. The stories shared demonstrate that STEM careers are accessible for everyone. Speakers showed how mathematics and science is applied to their jobs and the important outcomes they are achieving.

What makes it exciting to work in such a career? Designing a building or a bridge that brings communities together, developing objects, devices or equipment that improve people's quality of life, and dealing with the social implications and challenges along the way, are examples of what STEM is really about. It's the outcomes that are important, and clearly what people find valuable in such a career.

Presenters shared their stories; the journey they took, the contributions they have made, the impact of being a female, tips for success, and how to overcome obstacles along the way.

There was a particular emphasis on the importance of mathematics in VCE subject selection, university degrees and in STEM careers.



MAV would like to thank FORD for being our Gold Sponsor. Also, a thank you to all companies that contributed their time and resources, including the fantastic speakers. MAV also thanks Ivanhoe Girls' Grammar School for hosting the event.



## **PUBLICATIONS**

## **COMMITTEE MEMBERS**

Michael O'Connor (Convenor), Trish Jelbart, Terence Mills, James Russo (Editor, Prime Number), Roger Walter (Editor, Vinculum), Louise Gray (Stitch Marketing), Ellen Corovic (Executive Officer).

## **JOURNALS**

## **KEY ACHIEVEMENTS**

## **Prime Number**

- Issue 3 of 2018 was devoted to the MAV Primary Mathematics Conference
- Issue 4 was notable for two researcher-practitioner collaborations, one around how mathematics is portrayed in popular media and the other around family mathematics nights
- Focus on pre-service teachers expanded to engage future members
- Inclusion of international experts aimed at broadening Victorian and Australian teachers' perspectives on what constitutes effective mathematics teaching. Issue 2 of 2019 is notable for a contribution by Jennifer Bay-Williams and Gina Kling, both of whom are highlyrespected US-based primary-mathematics educators.

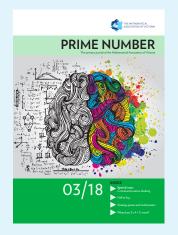
## Vinculum

- Bruce Ruthven continues to produce new mathematics, to challenge students and inspire some interesting projects
- Dr Norman Do welcomed as a regular contributor
- Professor Terence Mills started a regular chess problem.

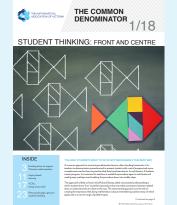
## **Common Denominator**

- Three regular columns were introduced; a MAV professional development calendar, a puzzle page and a VCAL contribution
- Leading articles by Catherine Attard and Di Siemon made valuable contributions and demonstrate the high quality of the publication
- 36 mathematics educators contributed articles to Common Denominator – this is quite an impressive number considering that often maths teachers feel that their strength doesn't lie in writing articles for publication.

The Publications Committee meets each term to discuss matters related to the publications of MAV. The editors of the journals Common Denominator (Louise Gray), Prime Number (James Russo), and Vinculum (Roger Walter) attend the meetings, where they outline content in recent issues and plans for future issues. Members of the committee offer advice on all these matters for the editors to consider. The quality of the publications are a result of the committee supporting this important member benefit provided by MAV.















## **MAV SHOP**

## **KEY ACHIEVEMENTS**

- 44 new titles added increasing the product range available for educators
- Revenue increases from \$228,735 in 2017 to \$250,421 in 2018.
- MAV Shop's presence at the Annual MAV Conference again achieved good sales at \$16,103.85
- Pop-up shop sales at the primary conference increased to \$7.020.64
- 12 new VCE resources published for Further Maths, Maths Methods and Specialist Maths

Due to the ongoing work over previous years reducing unwanted and older titles, MAV Shop now stocks high quality up-to-date resources for all teachers. A greater focus was placed on introducing more titles to expand the range stocked during 2018 including a variety of middle years, secondary and VCAL teacher resources. A key feature of MAV shop is the large range of quality maths picture story books offered. The range was increased by 18 titles in 2018 to a total of 54 books.

Again, this year there was an emphasis of advertising MAV products in all MAV communication channels (e.g. MATRIX, 20 Common Denominator magazine) and in show bags or at events.

This has assisted in promoting the MAV as the 'go to' place for mathematics education resources. Each term Common Denominator has featured a book review in a variety of story formats from a simple book review to a lesson study utilising a picture story book. This has a duel focus of promoting MAV products and quality mathematics teaching at MAV member schools.

MAV Shop's presence at the MAV annual conferences continues to be an outstanding success. The floor space in 2018 was utilised thoroughly and new shop staff were trained. Eddie Woo's presence in the shop signing books created quite a stir and was a fabulous opportunity to promote MAV resources. While sales were down slightly at the MAV annual conference, there were far fewer reduced items and therefore the overall sales were considered strong.

In 2018, MAV continued to experiment with pop-up shops at selected events. At the annual Primary Conference in June, MAV had a larger floor space and staff to run a shop. This was a great success with sales significantly increased from 2017. MAV also held pop-up shops to limited success at the Moreland Early Years Conference, Mildura regional conference, the Education Show and a handful of smaller events. While sales were limited at these events, it provided a great opportunity to showcase the range of stocked items at the MAV.

The sales of VCE products were again a very important part of the MAVshop with 12 new resources published for Further Maths, Maths Methods and Specialists Maths. MAV continued to produce quality resources for VCE including: SAC Suggested Starting points, VCE exam solutions and VCE practice exams. Sales aligned to previous years at just over \$100,000 revenue.

Presales of some of these materials begin months in advance, and exam solutions and SAC starting points are integral to the VCE professional learning program. MAV understands that these highly regarded resources are a key member benefit for many secondary schools and therefore puts a lot of effort into ensuring a quality product that meets teacher's needs.







## **MADE BY MATHS**

## **KEY ACHIEVEMENTS**

 Downloads consistent with previous years with around 1000 downloads

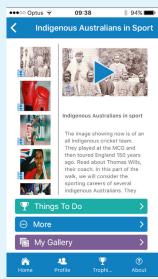
The Made by Maths app has maintained users during 2018 on both iOS and android platforms. It was featured in *Common Denominator* and several times through the *Matrix* e-newsletter to raise awareness and use of the app. In 2018 the decision to make the Swanston Street free to users was made.

There are five walks currently over four locations:

- Federation Square and Swanston Street
- La Trobe Melbourne, Bundoora Campus
- Melbourne Cricket Ground, National Sports Museum
- Explore your world, any school grounds







## PROJECTS AND PARTNERSHIPS

## VICTORIAN DEPARTMENT OF EDUCATION AND TRAINING

## SPECIAL PARTNERSHIP PROJECTS

MAV was pleased to announce that it received funding from the Victorian Department of Education and Training (DET) through the Strategic Partnerships Program (SPP). This triennial program from 2018 to 2020 allows MAV to continue to run its Mathematics Camp for Gifted and Talented Regional Students and to expand online professional learning through a series of webinars, and through live broadcasts of key events.





Education and Training

## MATHEMATICS CAMP FOR GIFTED AND TALENTED REGIONAL STUDENTS

## KEY ACHIEVEMENTS

- 24 students attended from regional Victoria
- Engaging industry partners provided an exceptional student experience
- Real-world projects develop mathematical knowledge and thinking

The maths camps have been a great success for the past three years and bring together high potential rural and regional students to experience what a career in some of the most exciting organisations in the STEM industry look like. The demand for this program provided impetus for an enhanced program that gives access to a greater number of students.

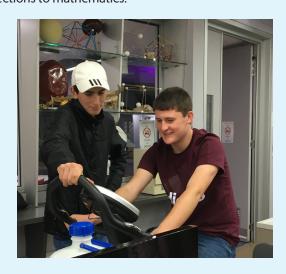
Regional and rural schools nominated Year 10 students for attendance in the program who are performing above average in mathematics by documenting students' mathematical capabilities, performance and interest. The application also considers skills in leadership, teamwork and co-curricular activities. A selection process results in 24 regional students participating in a 4 and a half day camp in Metropolitan Melbourne. The backbone of the camp is an industry-based, real-world mathematics project.

In 2018 the industry partners were Ford, Reserve Bank of Australia, Victorian Space Science Centre, and Biari Networks. Further support was provided by La Trobe University, and RMIT providing both the venues and access to their mathematicians.

Students work in small groups to find a possible solution to a project problem. They receive daily mentoring by

mathematicians and industry representatives. Students develop their project presentation and solution as a team, developing 21st century skills including communication, problem solving and creative and critical thinking. The openended projects stretch the application of mathematics past students' usual experience and challenge them to come up with innovative solutions. The week culminates in students presenting their project findings in the presence of the industry partners, invited guests and parents.

All participants visit each industry partner's facilities and are exposed to mathematicians and STEM-based career opportunities providing motivation for future studies. In addition, students undertake experiential activities, including Made by Maths App walks, visits to universities and presentations from professionals and academics with connections to mathematics.



## **ONLINE PROFESSIONAL LEARNING**

## KEY ACHIEVEMENTS

- 436 primary mathematics educators attended an online session (6 separate sessions delivered)
- 156 secondary mathematics educators attended an online session (6 separate sessions delivered)
- 4 keynotes and 1 workshop were videoed at MAV19 and posted to the MAV website, with a total of over 5700 views
- Feedback overwhelmingly positive from regional schools
- Polycom equipment funded by the Victorian Department of education and training SPP funding.

This program provided mathematics educators across the state (especially in rural and regional settings) with access to professional learning opportunities not usually available to them due to their remoteness from Melbourne. The aim is to improve teacher capacity by improving access to mathematics professional learning activities for all teachers across the state.

Part of the initial funding from this program was used to purchase and install a Polycom unit allowing MAV to run high-quality video and audio based online professional learning sessions. DET supported MAV by setting up the Polycom as part of the DET system, ensuring high bandwidth of our sessions to DET schools.

A program of sessions across primary and secondary was developed by the MAV Education Consultants and delivered throughout terms three and four by MAV staff and external consultants.

At MAV18 Annual Conference for the first time MAV recorded live four keynotes. These included Eddie Woo, Alan Finkel, Australia's Chief Scientist, Lynn McClure from Cambridge University Press, and Robyn Jorgensen from University of Canberra. To say the least MAV were surprised at the number of views these videos received in a short period of time. This demonstrates that this activity is highly valued by mathematics educators, especially those who may otherwise be unable to access such high-quality professional learning opportunities.

During 2019 MAV will expand the recording of keynotes to its primary mathematics education conference in June, as well as other events during the year.

The SPP funding for online professional learning continues through 2019 and 2020.

## OTHER PARTNERSHIP WORK

## NUMERACY PORTAL AND THE MATHEMATIC CURRICULUM COMPANION

## **KEY ACHIEVEMENTS**

- MAV successfully developed new content for DET's expanding Numeracy Portal, in particular:
  - Content for the Mathematics Curriculum Companion developed and delivered
  - Successfully tendered in collaboration with Deakin University to develop content for the new Birth to 10 Numeracy Guide.

MAV was honoured to be able to work directly for DET to produce further high-quality content which has been incorporated in to the Mathematics Curriculum Companion. This companion for mathematics teachers provides excellent ideas and activities across the curriculum for use in the classroom. Activities engage students in hands-on, practical and contextual activities that allow them to develop both their mathematical content knowledge, and mathematical thinking. Feedback so far is that teachers have found this resource highly valuable for expanding their suite of classroom activities. During 2019 the companion will be developed into an online portal making the content more accessible and easily updated in future.

Further, MAV was successful in tendering to produce content for the Birth to 10 Numeracy Guide. This involved working with Deakin University as the lead organisation, alongside Victoria University and University of Tasmania. MAV would like to thank Deakin University, especially Leicha Bragg, for inviting MAV to be part of this process. Work was undertaken in this collaborative team over a number of months, to produce a highly valuable resource for teachers and school leaders to support the delivery of numeracy across the curriculum.

To find out more visit DET's numeracy Portal https://www.education.vic.gov.au/school/teachers/teachingresources/discipline/maths/Pages/numeracyportal.aspx

# TECH SCHOOL LEARNING ADVISORY PANEL KEY ACHIEVEMENTS

- MAV CEO invited to join this important advisory panel
- Raising MAV's profile alongside other industry partners through collaboration and expert advice.

The Victorian Department of Education and Training Tech Schools Project Board (TSPB) endorsed the establishment of a Tech School Learning Programs Advisory Panel, to provide feedback on Tech School learning programs as they are developed by Tech School hosts and committees.

As a member of the panel, MAV CEO Peter Saffin attended a number of meetings throughout the year with other panel members from various organisations, including DET, VCAA and selected other subject associations.

Presentations were made to the panel by the leaders of various Tech Schools, explaining their pedagogical approach and program information. Feedback to each Tech School was supportive and designed to add value to programs, enabling Tech Schools to evolve their programs over time with constructive feedback. Feedback is informed by the Tech Schools Learning Program Design Framework (Framework), and by each person's respective areas of expertise.

The panel also visited Bendigo Tech School, to gain a first-hand experience of the design and implementation of their programs.

MAV will continue to support the Tech School program evolution through 2019. MAV would like to thank DET for the opportunity to be involved in this important initiative.

## VICTORIAN MATHS CHALLENGE

KEY ACHIEVEMENTS

 MAV continued to consult in support of the Victorian Department of Education and Training on the development of content for the Victorian Maths Challenge

## PROJECTS AND PARTNERSHIPS (CONTINUED)

- New app for mobile devices launched: Infinite Voyage
- Content to engage with mathematics at home and in the community will be highly valued.



MAV continues to support DET's work in regard to the Victorian Maths Challenge. This work will be ongoing in 2019, and we will keep you informed as resources are launched. This very exciting initiative has much potential for engaging the wider community in the importance and value of mathematics and therefore aligns well to MAV's mission. The Infinite Voyage App that MAV consulted on has been released and is now available for initial use. Further refinements will be done over time. The app allows students to use their problem-solving skills as they explore the challenges and games in and around the ship. The Infinite Voyage uses gamification principles to increase confidence in and engagement with mathematics. Search for Infinite Voyage on the app store (Android and Apple available).

## VICTORIAN RESPONSIBLE GAMBLING FOUNDATION

## **KEY ACHIEVEMENTS**

- Existing VCAL numeracy content revised to align to the new VCAL numeracy curriculum
- MAV consultants reviewed all existing units to build an up-to-date set of content for schools.



MAV again worked throughout 2018 to support the Foundation in updating its high-quality resources for VCAL students. The resources were checked for accuracy and quality whilst being aligned to the latest version of the VCAL numeracy curriculum released during 2018.

Whilst providing opportunities to develop numeracy skills, these very important resources tackle the social issue of responsible gambling in a positive way. MAV would like to thank the Foundation for its continued partnership and looks forward to a productive relationship in future.

To find out more about these resources visit: https://responsiblegambling.vic.gov.au/reducing-harm/schools/

## **AUSTRALIAN ACADEMY OF SCIENCE**

## **KEY ACHIEVEMENTS**

- MAV proudly supported the authoring of resources in special topics for reSolve Maths by Inquiry
- MAV continued to promote reSolve resources in its professional learning, and to support the rollout of resources where possible

During 2018 MAV continued to support contracted authors to produce resources for the mathematics and algorithmic thinking special topic.

MAV also continued to promote resolve resources at its events, and in its professional learning sessions as an exemplar resource. reSolve lessons demonstrate excellence in pedagogy and approaches to teaching and learning. MAV have seen them being well received by teachers across primary and secondary schools. MAV would like to thank the Academy for the opportunity to work with them and will continue to support these fantastic resources being used across the state.

www.resolve.edu.au

## **FELSTEAD EDUCATION**

## **KEY ACHIEVEMENTS**

- The Math Show continues to reach students across Victoria
- MAV acts as principal sponsor in Victoria
- Discounts available to MAV member schools.

MAV continues to work with Felstead Education, who provide an engaging, in-school show for students across primary and secondary schools. MAV produced the support resources



that schools can use after the show to continue to engage students in the concepts presented. The maths show aims not only to engage students with maths but leave them astounded by the hidden power and wonder of number, while making them laugh in an interactive and unique experience. A number of MAV schools accessed a discount on the show, due to their MAV membership.

MAV would also like to thank Felstead Education for their support in entertaining parents, students and teachers at the Maths Talent Quest awards in October. The entertaining approach appealed to all who attended, gaining a laugh and helping to ensure that our ceremony was a success.

# MELBOURNE GRADUATE SCHOOL OF EDUCATION, THE UNIVERSITY OF MELBOURNE

- Primary and early childhood conference delivered successfully for second year running
- New Mathematics Collaborative, two-year whole school development program for primary mathematics education launched.



MAV in partnership with The Melbourne Graduate School of Education (MGSE), successfully delivered its primary and early childhood conference. This fantastic event was highly successful and is helping to support the profile and value that each organisation brings.

With a desire to further to collaborate, MAV and MGSE conceptualised a whole school development program for primary schools, which was launched in early 2019. 39 primary schools from across the state have signed up to participate in a two year program which will develop their maths leadership, content and pedagogical content knowledge in a structured way. This program will allow schools to develop the tools and techniques to implement and measure improvement, while working with a network of like schools striving for improvement.

Schools in the Maths Collaborative will develop:

- a clear and practical focus on school improvement
- the tools and techniques to implement and measure improvement
- a practical understanding of the structures to support improved practice by working collaboratively within their school
- a deep understanding of the maths proficiency strands and the teaching practices to support student development in mathematics.

Teachers in the Maths Collaborative will:

- improve their mathematics content and content pedagogical knowledge
- implement supportive and collaborative structures
- engage with research-based methods and tools for improvement
- network and work collaboratively to develop professionally
- strengthen their ability to cater for diverse ranges of student needs (differentiation)
- consolidate approaches to embedding critical and creative thinking
- work towards greater cognitive engagement through inquiry-based approaches and emphasising growth mind-sets.

This exciting initiative is now well underway, and we look forward to seeing how these schools evolve their practice over time.

## SPONSORSHIP AND SUPPORT

To all other organisations that sponsored our events and services, or provided in kind support in various way, MAV says 'thank you' and we look forward to working with you again in the future.

# THE MATHEMATICAL ASSOCIATION OF VICTORIA

# FINANCIAL STATEMENTS FOR THE YEAR ENDED 31 JANUARY 2019 ACN 004 892 755

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ACN 004 892 755

## **Directors' Report**

## 31 January 2019

The directors present their report on The Mathematical Association of Victoria for the financial year ended 31 January 2019.

#### 1 General information

#### Information on directors

The names of each person who has been a director during the year and to the date of this report are:

Ms Kylie Slaney (Appointed 22 May 2018)

Qualifications Teacher

Mrs Kate Copping (Appointed 4 September 2018)

Qualifications University lecturer

Dr Ann Downton

Qualifications University lecturer

Ms Patricia Jelbart (Completed term 22 March 2018)

Qualifications Teacher
Special responsibilities Vice President

Ms Allason McNamara

Qualifications Teacher
Special responsibilities Past President

Mr James Spithill

Qualifications Research fellow

Mr James Gray (Completed term on 22 May 2018)

Qualifications Teacher

Ms Michaela Epstein

Qualifications Head of Learning

Special responsibilities President

Ms Felicity Furey (Completed term 22 May 2018)

Qualifications Engineer
Special responsibilities Vice President

Dr Dan Cloney

Qualifications Research Fellow

Mr Peter Karakoussis

Qualifications Teacher

Prof. Terence Mills (Completed term 22 May 2018)

Qualifications University Professor

ACN 004 892 755

## Directors' Report 31 January 2019

#### 1 General information

#### Information on directors

Mr Michael O'Connor

Qualifications Schools Outreach Manager Special responsibilities Secretary/ Vice President

Mr Thomas Moore

Qualifications Post Graduate Student/Consultant

Ms Claire Delaney

Qualifications Teacher

Mr Juan Ospina Leon

Qualifications Teacher
Special responsibilities Treasurer

Dr Max Stephens (Appointed 22 May 2018)

Qualifications University lecturer

Special responsibilities Secretary

Directors have been in office since the start of the financial year to the date of this report unless otherwise stated.

## **Company secretary**

The following person held the position of Company secretary at the end of the financial year:

Mr Peter Saffin (Chief Executive Officer)

## **Principal activities**

The principal activity of The Mathematical Association of Victoria during the financial year was the provision of services aimed at promoting mathematics within the community.

No significant changes in the nature of the Company's activity occurred during the financial year.

## Members guarantee

The Mathematical Association of Victoria is a company limited by guarantee. In the event of, and for the purpose of winding up of the company, the amount capable of being called up from each members and any person or association who ceased to be a member in the year prior to the winding up, is limited to \$20 for each member, subject to the provisions of the company's constitution.

At 31 January 2019 the collective liability of members was \$29,080 (2017: \$26,920).

ACN 004 892 755

## **Directors' Report**

## 31 January 2019

#### 2 Operating results and review of operations for the year

#### Operating results

The profit of the Company amounted to \$35,939 (2017: \$133,286).

#### **Review of operations**

The results of the operations of the entity during the financial year reflect decisions taken by directors to further refine the mix of the entity's services within the ongoing framework of strategic planning and priority setting.

#### 3 Other items

## Significant changes in state of affairs

There have been no significant changes in the state of affairs of the Company during the year.

#### Events after the reporting date

No matters or circumstances have arisen since the end of the financial year which significantly affected or may significantly affect the operations of the Company, the results of those operations or the state of affairs of the Company in future financial years.

## Future developments and results

The entity expects to maintain the present status and level of operations and hence there are no likely developments in the entity's operations.

#### **Environmental issues**

The Company's operations are not regulated by any significant environmental regulations under a law of the Commonwealth or of a state or territory of Australia.

#### 4 Options

No options over issued shares or interests in the Company were granted during or since the end of the financial year and there were no options outstanding at the date of this report.

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## Directors' Report 31 January 2019

## 5 Meetings of directors

During the financial year, 6 meetings of directors were held. Attendances by each director during the year were as follows:

	Directors' Meetings		
	Number eligible to attend	Number attended	
Ms Kylie Slaney	4	4	
Mrs Kate Copping	2	2	
Dr Ann Downton	6	6	
Ms Patricia Jelbart	2	2	
Ms Allason McNamara	6	5	
Mr James Spithill	6	5	
Mr James Gray	2	2	
Ms Michaela Epstein	6	6	
Ms Felicity Furey	2	2	
Dr Dan Cloney	6	6	
Mr Peter Karakoussis	6	6	
Prof. Terence Mills	2	2	
Mr Michael O'Connor	6	6	
Mr Thomas Moore	6	4	
Ms Claire Delaney	6	5	
Mr Juan Ospina Leon	6	5	
Dr Max Stephens	4	3	

### 6 Indemnification and insurance of officers and auditors

The company has paid an insurance premium to indemnify the officers acting in their capacity as officers of the company. During or since the end of the financial year, no other indemnities have been given in relation to the officers of the company.

No indemnities have been given or insurance premiums paid, during or since the end of the financial year, on behalf of the auditor of the company.

## 7 Proceedings on behalf of company

No person has applied for leave of Court to bring proceedings on behalf of the entity or intervene in any proceedings to which the entity is a party for the purpose of taking responsibility on behalf of the entity for all or any part of those proceedings.

The entity was not a party to any such proceedings during the year.

## 8 Auditor's independence declaration

The lead auditor's independence declaration in accordance with section 307C of the *Corporations Act 2001*, for the year ended 31 January 2019 has been received and can be found on page 6 of the financial report.

ACN 004 892 755

# **Directors' Report** 31 January 2019

Signed in accordance with a resolution of the Board of Directors:

Director: MEDIT	Director:	from 8	Lynu:	Lean
Ms Michaela Epstein	Director	Mr Juar	n Ospina Led	n
Dated this day of April	2019			



# Auditor's Independence Declaration under Section 307C of the Corporations Act 2001 to the Directors of The Mathematical Association of Victoria

As lead audit partner for the audit of the financial statements of The Mathematical Association of Victoria for the financial year ended 31 January 2019, I declare that to the best of my knowledge and belief, there have been no contraventions of:

- (a) the auditor independence requirements of the *Corporations Act 2001* in relation to the audit; and
- (b) any applicable code of professional conduct in relation to the audit.

Nexia Melbourne Audit Pty Ltd Melbourne

Dated: this 16<sup>th</sup> day of April 2019

Andrew S. Wehrens Director

P. Welroso

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# Statement of Profit or Loss and Other Comprehensive Income For the Year Ended 31 January 2019

		2019	2018
	Note	\$	\$
Revenue	4	2,157,841	2,277,742
Other income	4	25,441	20,619
Employee benefits expense		(770,160)	(747,165)
Depreciation and amortisation expense		(54,733)	(79,564)
Membership expenses		(91,758)	(105,179)
Publications and journals		(265,805)	(256,339)
Annual conference		(209,739)	(192,463)
Student activities		(68,683)	(119,256)
Professional development		(251,224)	(189,085)
Other expenses	_	(435,241)	(476,024)
Profit for the year	=	35,939	133,286
Other comprehensive income for the year	_	-	<u>-</u>
Total comprehensive income for the year	_	35,939	133,286

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# **Statement of Financial Position**As At 31 January 2019

		2019	2018
	Note	\$	\$
ASSETS			
CURRENT ASSETS			
Cash and cash equivalents	6	362,672	458,659
Trade and other receivables	7	200,924	135,258
Inventories	8	42,214	30,163
Other assets	11 _	54,861	102,498
TOTAL CURRENT ASSETS	_	660,671	726,578
NON-CURRENT ASSETS			_
Property, plant and equipment	9	1,698,323	1,663,304
Intangible assets	10 _	71,707	49,792
TOTAL NON-CURRENT ASSETS	_	1,770,030	1,713,096
TOTAL ASSETS	_	2,430,701	2,439,674
CURRENT LIABILITIES Trade and other payables Employee benefits Other liabilities TOTAL CURRENT LIABILITIES Employee benefits TOTAL NON-CURRENT LIABILITIES TOTAL LIABILITIES NET ASSETS	12 14 13 — — — —	154,763 95,592 267,792 518,147 11,614 11,614 529,761 1,900,940	240,017 151,228 175,824 567,069 7,604 7,604 574,673 1,865,001
EQUITY Reserves Retained earnings TOTAL EQUITY	15 	1,346,531 554,409 1,900,940	1,346,531 518,470 1,865,001

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# **Statement of Changes in Equity** For the Year Ended 31 January 2019

2019

	Capital Profits Reserve \$	Asset Revaluation Surplus \$	Total \$
Balance at 1 February 2018	518,470	1,346,531	1,865,001
Profit for the year	35,939	-	35,939
Balance at 31 January 2019	554,409	1,346,531	1,900,940
2018			
Balance at 1 February 2017	385,184	1,346,531	1,731,715
Profit for the year	133,286	-	133,286
Balance at 31 January 2018	518,470	1,346,531	1,865,001

ACN 004 892 755

# **Statement of Cash Flows**For the Year Ended 31 January 2019

	Note	2019 \$	2018 \$
CASH FLOWS FROM OPERATING ACTIVITIES:		•	•
Receipts from customers, members and grants		2,206,542	2,275,924
Payments to suppliers and employees		(2,193,905)	(2,181,601)
Interest received		3,043	2,840
Net cash provided by operating activities	19	15,680	97,163
CASH FLOWS FROM INVESTING ACTIVITIES:			
Purchase of property, plant and equipment	_	(111,667)	(25,211)
Net cash used in investing activities	_	(111,667)	(25,211)
Net increase in cash and cash equivalents held		(95,987)	71,952
Cash and cash equivalents at beginning of year		458.659	386,707
	_	430,033	300,707
Cash and cash equivalents at end of financial year	6 _	362,672	458,659

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### Notes to the Financial Statements For the Year Ended 31 January 2019

The financial report covers The Mathematical Association of Victoria as an individual entity. The Mathematical Association of Victoria is a not-for-for profit Company limited by guarantee, incorporated and domiciled in Australia.

The functional and presentation currency of The Mathematical Association of Victoria is Australian dollars.

Comparatives are consistent with prior years, unless otherwise stated.

The Company is an entity to which ASIC Corporations (Rounding in Financial/Directors' Reports) Instrument 2016/191 applies and, accordingly amounts in the financial statements and Directors' Report have been rounded to the nearest dollar.

#### 1 Basis of Preparation

In the Directors opinion, the Company is not a reporting entity since there are unlikely to exist users of the financial report who are not able to command the preparation of reports tailored so as to satisfy specifically all of their information needs. This special purpose financial report has been prepared to meet the reporting requirements of the *Corporations Act 2001*.

The financial statements have been prepared in accordance with the recognition and measurement requirements of the Australian Accounting Standards and Accounting Interpretations, and the disclosure requirements of AASB 101 Presentation of Financial Statements, AASB 107 Statement of Cash Flows, AASB 108 Accounting Policies, Changes in Accounting Estimates and Errors, AASB 1048 Interpretation of Standards and AASB 1054 Australian Additional Disclosures.

The financial statements have been prepared on an accruals basis and are based on historical costs modified, where applicable, by the measurement at fair value of selected non-current assets, financial assets and financial liabilities.

Significant accounting policies adopted in the preparation of these financial statements are presented below and are consistent with prior reporting periods unless otherwise stated.

#### 2 Summary of Significant Accounting Policies

### (a) Income Tax

The Company is exempt from income tax under Division 50 of the *Income Tax Assessment Act 1997*.

### (b) Revenue and other income

Revenue from the sale of goods is recognised upon the delivery of goods to customers.

Grant revenue is recognised in the statement of profit or loss and other comprehensive income when the entity obtains control of the grant, it is probable that the economic benefits gained from the grant will flow to the entity and the amount of the grant can be measured reliably.

When grant revenue is received whereby the entity incurs an obligation to deliver economic value directly back to the contributor, this is considered a reciprocal transaction and the grant revenue is recognised in the statement of financial position as a liability until the service has been delivered to the contributor, otherwise the grant is recognised as income on receipt.

Interest is recognised using the effective interest method.

Revenue from the rendering of a service is recognised upon the delivery of the service to the customers.

Membership fees are recognised when invoiced.

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### Notes to the Financial Statements For the Year Ended 31 January 2019

### 2 Summary of Significant Accounting Policies

### (b) Revenue and other income

All revenue is stated net of the amount of goods and services tax (GST).

### (c) Goods and services tax (GST)

Revenues, expenses and assets are recognised net of the amount of GST, except where the amount of GST incurred is not recoverable from the Australian Tax Office. In these circumstances, the GST is recognised as part of the cost of acquisition of the asset or as part of an item of the expense. Receivables and payables in the statement of financial position are shown inclusive of GST.

### (d) Inventories

Inventories are measured at the lower of cost and net realisable value.

### (e) Property, plant and equipment

Each class of property, plant and equipment is carried at cost or fair value less, where applicable, any accumulated depreciation and impairment.

### **Property**

Freehold land and buildings are shown at their fair value determined by the directors from advice and information obtained in relation to local property prices.

Increases in the carrying amount arising on revaluation of land and buildings are recognised in comprehensive income and accumulated in the revaluation reserve in equity. Decreases that offset previous increases of the same class shall be recognised in comprehensive income under the heading of revaluation surplus. All other decreases are charged to the statement of profit or loss and other comprehensive income.

Any accumulated depreciation at the date of revaluation is eliminated against the gross carrying amount of the asset and the net amount is restated to the revalued amount of the asset.

### Plant and equipment

Plant and equipment are measured on the cost basis less depreciation and impairment losses. The carrying amount of plant and equipment is reviewed annually by directors to ensure it is not in excess of the recoverable amount from these assets. The recoverable amount is assessed on the basis of the expected net cash flows that will be received from the assets employment and subsequent disposal. The expected net cash flows have been discounted to their present values in determining recoverable amounts.

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### Notes to the Financial Statements For the Year Ended 31 January 2019

### 2 Summary of Significant Accounting Policies

### (e) Property, plant and equipment

#### Depreciation

Property, plant and equipment, excluding freehold land, is depreciated on a straight-line basis over the assets useful life to the Company, commencing when the asset is ready for use.

The depreciation rates used for each class of depreciable asset are shown below:

Fixed asset class

Buildings

Plant and Equipment

Furniture, Fixtures and Fittings

Depreciation rate

2-12%

12-25%

9%

At the end of each annual reporting period, the depreciation method, useful life and residual value of each asset is reviewed. Any revisions are accounted for prospectively as a change in estimate.

Gains and losses on disposals are determined by comparing proceeds with the carrying amount. These gains or losses are included in the statement of profit or loss and other comprehensive income. When revalued assets are sold, amounts included in the revaluation reserve relating to that asset are transferred to retained earnings.

### (f) Financial instruments

Financial instruments are recognised initially using trade date accounting, i.e. on the date that the Company becomes party to the contractual provisions of the instrument.

On initial recognition, all financial instruments are measured at fair value plus transaction costs (except for instruments measured at fair value through profit or loss where transaction costs are expensed as incurred).

### Financial Assets

Financial assets are divided into the following categories which are described in detail below:

- loans and receivables;
- available-for-sale financial assets; and

Financial assets are assigned to the different categories on initial recognition, depending on the characteristics of the instrument and its purpose. A financial instrument's category is relevant to the way it is measured and whether any resulting income and expenses are recognised in profit or loss or in other comprehensive income.

All income and expenses relating to financial assets are recognised in the statement of profit or loss and other comprehensive income in the 'finance income' or 'finance costs' line item respectively.

#### Loans and receivables

Loans and receivables are non-derivative financial assets with fixed or determinable payments that are not quoted in an active market. They arise principally through the provision of goods and services to customers but also incorporate other types of contractual monetary assets.

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### Notes to the Financial Statements For the Year Ended 31 January 2019

### 2 Summary of Significant Accounting Policies

### (f) Financial instruments

After initial recognition these are measured at amortised cost using the effective interest method, less provision for impairment. Any change in their value is recognised in profit or loss.

The Company's trade and other receivables fall into this category of financial instruments.

Significant receivables are considered for impairment on an individual asset basis when they are past due at the reporting date or when objective evidence is received that a specific counterparty will default.

The amount of the impairment is the difference between the net carrying amount and the present value of the future expected cash flows associated with the impaired receivable.

In some circumstances, the Company renegotiates repayment terms with customers which may lead to changes in the timing of the payments, the Company does not necessarily consider the balance to be impaired, however assessment is made on a case-by-case basis.

#### Available-for-sale financial assets

Available-for-sale financial assets are non-derivative financial assets that do not qualify for inclusion in any of the other categories of financial assets or which have been designated in this category. The Company's available-for-sale financial assets comprise listed securities.

All available-for-sale financial assets are measured at fair value, with subsequent changes in value recognised in other comprehensive income.

Gains and losses arising from financial instruments classified as available-for-sale are only recognised in profit or loss when they are sold or when the investment is impaired.

In the case of impairment or sale, any gain or loss previously recognised in equity is transferred to the profit or loss

Losses recognised in the prior period statement of profit or loss and other comprehensive income resulting from the impairment of debt securities are reversed through the statement of profit or loss and other comprehensive income, if the subsequent increase can be objectively related to an event occurring after the impairment loss was recognised in profit or loss.

### Financial liabilities

Financial liabilities are classified as either financial liabilities 'at fair value through profit or loss' or other financial liabilities depending on the purpose for which the liability was acquired. Although the Company uses derivative financial instruments in economic hedges of currency and interest rate risk, it does not hedge account for these transactions.

The Company's financial liabilities include borrowings, trade and other payables (including finance lease liabilities), which are measured at amortised cost using the effective interest rate method.

### Impairment of financial assets

At the end of the reporting period the Company assesses whether there is any objective evidence that a financial asset or group of financial assets is impaired.

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# Notes to the Financial Statements For the Year Ended 31 January 2019

### 2 Summary of Significant Accounting Policies

### (f) Financial instruments

Financial assets at amortised cost

If there is objective evidence that an impairment loss on financial assets carried at amortised cost has been incurred, the amount of the loss is measured as the difference between the asset's carrying amount and the present value of the estimated future cash flows discounted at the financial assets original effective interest rate.

Impairment on loans and receivables is reduced through the use of an allowance accounts, all other impairment losses on financial assets at amortised cost are taken directly to the asset.

Subsequent recoveries of amounts previously written off are credited against other expenses in profit or loss.

Available-for-sale financial assets

A significant or prolonged decline in value of an available-for-sale asset below its cost is objective evidence of impairment, in this case, the cumulative loss that has been recognised in other comprehensive income is reclassified from equity to profit or loss as a reclassification adjustment. Any subsequent increase in the value of the asset is taken directly to other comprehensive income.

### (g) Impairment of non-financial assets

At each reporting date, all assets except for, inventories, assets arising from employee benefits, investment property and financial instrument assets are assessed to determine whether there is an indication of impairment. If there is an indication of impairment, the assets concerned are tested as to whether their carrying amount exceeds the recoverable amount, the difference is written-off by a charge to the statement of profit or loss and other comprehensive income except to the extent that the write-down can be debited to an asset revaluation reserve amount applicable to that class of asset.

At each reporting date, assets previously determined to be impaired are assessed for circumstances indicating that an impairment loss recognised in prior periods no longer exists or may have decreased. If there is an indication that the impairment loss has been reversed, the assets concerned are tested as to whether the recoverable amount exceeds the carrying amount, the difference not exceeding the original impairment is credited to the statement of profit or loss and other comprehensive income except for revalued assets which are credited to an asset revaluation reserve.

#### (h) Intangibles

### Software

Software has a finite life and is carried at cost less any accumulated amortisation and impairment losses. It has an estimated useful life of between one and four years.

### (i) Cash and cash equivalents

Cash and cash equivalents comprises cash on hand, demand deposits and short-term investments which are readily convertible to known amounts of cash and which are subject to an insignificant risk of change in value.

Bank overdrafts also form part of cash equivalents for the purpose of the statement of cash flows and are presented within current liabilities on the statement of financial position.

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# Notes to the Financial Statements For the Year Ended 31 January 2019

### 2 Summary of Significant Accounting Policies

### (j) Employee benefits

Provision is made for the Company's liability for employee benefits arising from services rendered by employees to the end of the reporting period. Employee benefits that are expected to be wholly settled within one year have been measured at the amounts expected to be paid when the liability is settled.

Employee benefits expected to be settled more than one year after the end of the reporting period have been measured at the present value of the estimated future cash outflows to be made for those benefits.

Contributions are made by the entity to an employee superannuation fund and are charged as expenses when incurred.

### (k) Provisions

Provisions are recognised when the Company has a legal or constructive obligation, as a result of past events, for which it is probable that an outflow of economic benefits will result and that outflow can be reliably measured.

### (I) Receivables

Receivables are initially measured at fair value and subsequently measured at amortised cost using the effective interest rate method less any allowance for impairment. Any allowance for impairment is expensed through the statement of profit or loss and other comprehensive income. Trade receivable credit terms are 30 days.

#### (m) Trade payables

Liabilities are recognised for amounts to be paid in the future for goods and services received, whether or not invoiced to the company. Creditors are normally settled on 30 days terms.

### (n) Adoption of new and revised accounting standards

The Company has adopted all standards which became effective for the first time at 31 January 2019, the adoption of these standards has not caused any material adjustments to the reported financial position, performance or cash flow of the Company.

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## **Notes to the Financial Statements** For the Year Ended 31 January 2019

#### 2 **Summary of Significant Accounting Policies**

#### **New Accounting Standards and Interpretations** (o)

The AASB has issued new and amended Accounting Standards and Interpretations that have mandatory application dates for future reporting periods. The Company has decided not to early adopt these Standards. The following table summarises those future requirements, and their impact on the Company where the standard is relevant:

#### **Standard Name**

### AASB 9 Financial Instruments and amending standards

### **Effective date** for entity

31 January 2019

### Requirements

Significant revisions to the classification and measurement of financial assets, reducing the number of categories and simplifying to be not material. the measurement choices, including the removal of impairment testing of assets measured at fair value. The amortised cost model is available for debt assets meeting both business model and cash flow characteristics tests. All investments in equity instruments using AASB 9 are to be measured at fair value.

Amends measurement rules for financial liabilities that the entity elects to measure at fair value through profit and loss. Changes in fair value attributable to changes in the entity's own credit risk are presented in other comprehensive income.

#### **Impact**

The impact of AASB 9 has been quantified and has been deemed

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### **Notes to the Financial Statements** For the Year Ended 31 January 2019

#### 2 **Summary of Significant Accounting Policies**

### (o)

#### **New Accounting Standards and Interpretations Effective date Standard Name** for entity **Impact** Requirements AASB 15 Revenue from AASB 15 introduces a five step The impact of AASB 31 January Contracts with Customers and 2020 process for revenue recognition with 15 has not yet been AASB 1058 Income of NFP the core principle of the new quantified, however it **Entities** Standard being for entities to is not expected to be recognise revenue to depict the material. transfer of goods or services to customers in amounts that reflect the consideration (that is, payment) to which the entity expects to be entitled in exchange for those goods or services. Accounting policy changes will arise in timing of revenue recognition, treatment of contracts costs and contracts which contain a financing element. AASB 15 will also result in enhanced disclosures about revenue, provide guidance for transactions that were not previously addressed comprehensively (for example, service revenue and contract modifications) and improve guidance for multiple element arrangements. AASB 16 will cause the majority of AASB 16 Leases 31 January The impact of AASB 2020 leases of an entity to be brought 16 has not yet been onto the statement of financial quantified however it is position. There are limited not expected to be exceptions relating to short-term material. leases and low value assets which may remain off-balance sheet. The calculation of the lease liability will take into account appropriate discount rates, assumptions about lease term and increases in lease payments.

A corresponding right to use asset will be recognised which will be amortised over the term of the lease. Rent expense will no longer be shown, the profit and loss impact of the leases will be through amortisation and interest charges.

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### **Notes to the Financial Statements**

### For the Year Ended 31 January 2019

### 3 Critical Accounting Estimates and Judgments

The directors make estimates and judgements during the preparation of these financial statements regarding assumptions about current and future events affecting transactions and balances.

These estimates and judgements are based on the best information available at the time of preparing the financial statements, however as additional information is known then the actual results may differ from the estimates.

### 4 Revenue and Other Income

	2019	2018
	\$	\$
Revenue		
- membership fees	361,224	343,123
- seminars and conferences	512,917	545,291
- student activities	94,945	195,160
- publications and solutions	328,590	300,738
- professional development	558,909	486,911
- grants and sponsorships	301,256	406,519
	2,157,841	2,277,742
Other Income		
- interest	3,044	2,840
- miscellaneous	22,397	17,779
	25,441	20,619
Total Revenue and Other Income	2,183,282	2,298,361

### 5 Result for the Year

Other expenses:

The result for the year was derived after charging / (crediting) the following items:

Provision for long service leave
Depreciation and amortisation expense
- buildings
- plant and equipment, furniture and fittings

- Sultware	
Auditors remuneration	
- auditing the accounts	

- additing the accounts
- assistance with preparation of the financial report

(29,639)	6,939

5,522

7,986

37,998

5,621 9,857 64,086

**7,980** 7,600 **2,000** 

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### **Notes to the Financial Statements**

### For the Year Ended 31 January 2019

### 6 Cash and Cash Equivalents

	2019	2018	
	\$	\$	
Cash on hand	265	800	
Bank balances	362,407	457,859	
	362,672	458,659	

### Reconciliation of cash

Cash and Cash equivalents reported in the statement of cash flows are reconciled to the equivalent items in the statement of financial position as follows:

Cash and cash equivalents	362,672	458,659	
Trade and Other Receivables			
CURRENT			
Trade receivables	187,333	111,839	
Provision for impairment	<del>_</del>		
	187,333	111,839	
Other receivables	13,591	23,419	
	200,924	135,258	

The carrying value of trade receivables is considered a reasonable approximation of fair value due to the short-term nature of the balances.

The maximum exposure to credit risk at the reporting date is the fair value of each class of receivable in the financial statements.

### 8 Inventories

7

**CURRENT** 

At cost:

Publications **42,214** 30,163

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## Notes to the Financial Statements For the Year Ended 31 January 2019

9	Property, plant and equipment		
		2019	2018
		\$	\$
	LAND AND BUILDINGS		
	Freehold land		
	At directors' valuation	1,346,531	1,346,531
	Buildings		
	At cost	480,770	479,270
	Accumulated depreciation	(198,240)	(192,718)
	Total buildings	282,530	286,552
	Total land and buildings	1,629,061	1,633,083
	PLANT AND EQUIPMENT		
	Plant and equipment, furniture and fittings		
	At cost	374,048	323,793
	Accumulated depreciation	(304,786)	(293,572)
	Total plant and equipment, furniture and fittings	69,262	30,221
	Total property, plant and equipment	1,698,323	1,663,304
10	Intangible Assets		
	Software		
	Cost	650,779	590,866
	Accumulated amortisation	(579,072)	(541,074)
	Net carrying value	71,707	49,792

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## **Notes to the Financial Statements**

### For the Year Ended 31 January 2019

11	Other Assets		
		2019	2018
		\$	\$
	CURRENT		
	Prepayments	54,861	64,998
	Accrued income	-	37,500
		54,861	102,498
12	Trade and Other Payables		
	CURRENT		
	Unsecured liabilities		
	Trade payables	59,314	108,540
	GST payable	40,034	49,989
	Accrued expenses	34,882	47,181
	Other liabilities	20,533	34,307
		154,763	240,017
13	Other Liabilities		
	CURRENT		
	Memberships received in advance (net of subscriptions)	267,792	175,824
14	Employee Benefits		
	Current liabilities		
	Annual leave	52,543	74,531
	Long service leave	43,049	76,697
		95,592	151,228
15	Reserves		
	Asset revaluation reserve		
	Opening balance	1,346,531	1,346,531

The asset revaluation reserve records fair value movements on freehold land and building located in 61 Blyth Street, Brunswick held under the revaluation model.

### 16 Members' Guarantee

The Company is incorporated under the *Corporations Act 2001* and is a Company limited by guarantee. If the Company is wound up, the constitution states that each member is required to contribute a maximum of \$20 each towards meeting any outstandings and obligations of the Company. At 31 January 2019 the number of members was 1,454 (2018: 1,346).

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### **Notes to the Financial Statements**

### For the Year Ended 31 January 2019

### 17 Auditors' Remuneration

	2019	2018
	\$	\$
Remuneration of the auditor of the company, Nexia Melbourne Audit Pty Ltd, for:		
- auditing of the financial statements	7,980	7,600
- preparation of the financial report	2,100	2,000
Total	10,080	9,600

### 18 Contingencies

In the opinion of the Directors, the Company did not have any contingencies at 31 January 2019 (31 January 2018:None).

### 19 Cash Flow Information

Reconciliation of net income to net cash provided by operating activities:

	2019	2018
	\$	\$
Profit/(loss) for the year	35,939	133,286
Non-cash flows in profit/(loss):		
- depreciation and amortisation	54,733	79,564
Changes in assets and liabilities:		
- (increase)/decrease in trade and other receivables	(65,666)	(8,404)
- (increase)/decrease in prepayments	47,637	(55,128)
- (increase)/decrease in inventories	(12,050)	12,135
- increase/(decrease) in income in advance	91,968	(11,193)
- increase/(decrease) in trade and other payables	(85,254)	(78,979)
- increase/(decrease) in employee benefits	(51,627)	25,882
Cashflow from operating activities	15,680	97,163

### 20 Company Details

The registered office of and principal place of business of the company is:

The Mathematical Association of Victoria

61 Blyth Street

**BRUNSWICK VIC 3056** 

ACN 004 892 755

### **Directors' Declaration**

In the directors' opinion:

- The Company is a not reporting entity because there are no users dependent upon general purpose financial statements. Accordingly, the attached special purpose financial report has been prepared in accordance with the accounting policies as described in Note 2 to the financial statements.
- 2. The financial statements and accompanying notes, as set out on pages 7 to 23, are in accordance with the *Corporations Act 2001* and:
  - (a) comply with Australian Accounting Standards as stated in Note 1 and the Corporations Regulations 2001; and
  - (b) give a true and fair view of the financial position as at 31 January 2019 and of the performance for the year ended on that date.
- 3. There are reasonable grounds to believe that the Company will be able to pay its debts as and when they become due and payable.

Signed in accordance with a resolution of the Directors.

Director Ms Michaela Epstein	Director	June D. Mr Juan	ospina Leor	
Dated thisday of2019				



# **Independent Auditor's Report To the Members of The Mathematical Association of Victoria**

### Report on the Audit of the Financial Report

### **Opinion**

We have audited the financial report, being a special purpose financial report, of The Mathematical Association of Victoria (the Company), which comprises the statement of financial position as at 31 January 2019, the statement of comprehensive income, statement of changes in equity and statement of cash flows for the year then ended, and notes to the financial statements, including a summary of significant accounting policies, and the directors' declaration.

In our opinion, the accompanying financial report of The Mathematical Association of Victoria is in accordance with the *Corporations Act 2001*, including:

- (i) giving a true and fair view of the Company's financial position as at 31 January 2019 and of its financial performance for the year then ended; and
- (ii) complying with Australian Accounting Standards to the extent described in Note 1, and the *Corporations Regulations 2001.*

### Basis for opinion

We conducted our audit in accordance with Australian Auditing Standards. Our responsibilities under those standards are further described in the Auditor's Responsibilities for the Audit of the Financial Report section of our report. We are independent of the Company in accordance with the auditor independence requirements of the *Corporations Act 2001* and the ethical requirements of the Accounting Professional and Ethical Standards Board's APES 110 *Code of Ethics for Professional Accountants* (the Code) that are relevant to our audit of the financial report in Australia. We have also fulfilled our other ethical responsibilities in accordance with the Code.

We confirm that the independence declaration required by the *Corporations Act 2001*, which has been given to the directors of the Company, would be in the same terms if given to the directors as at the time of this auditor's report.

We believe that the audit evidence we have obtained is sufficient and appropriate to provide a basis for our opinion.

### Emphasis of matter regarding basis of accounting

Without modifying our opinion, we draw attention to Note 1 to the financial report, which describes the basis of accounting. The financial report has been prepared for the purpose of fulfilling the directors' financial reporting responsibilities under the *Corporations Act 2001*. As a result, the financial report may not be suitable for another purpose. Our opinion is not modified in respect of this matter.

### Directors' responsibility for the financial report

The directors of the company are responsible for the preparation of the financial report that gives a true and fair view and have determined that the basis of preparation described in Note 1 to the financial statements is appropriate to meet the requirements of the *Corporations Act 2001* and is appropriate to meet the needs of the members. The directors are also responsible for such internal control as the directors determine is necessary to enable the preparation of the financial report that gives a true and fair view and is free from material misstatement, whether due to fraud or error.

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## Independent Auditor's Report To the Members of The Mathematical Association of Victoria

### **Report on the Audit of the Financial Report**

### Directors' responsibility for the financial report continued...

In preparing the financial report, the directors are responsible for assessing the Company's ability to continue as a going concern, disclosing, as applicable, matters related to going concern and using the going concern basis of accounting unless the directors either intend to liquidate the Company or to cease operations, or have no realistic alternative but to do so.

### Auditor's responsibility for the audit of the financial report

Our objectives are to obtain reasonable assurance about whether the financial report as a whole is free from material misstatement, whether due to fraud or error, and to issue an auditor's report that includes our opinion. Reasonable assurance is a high level of assurance, but is not a guarantee that an audit conducted in accordance with the Australian Auditing Standards will always detect a material misstatement when it exists. Misstatements can arise from fraud or error and are considered material if, individually or in the aggregate, they could reasonably be expected to influence the economic decisions of users taken on the basis of this financial report.

As part of an audit in accordance with the Australian Auditing Standards, we exercise professional judgement and maintain professional scepticism throughout the audit. We also:

- Identify and assess the risks of material misstatement of the financial report, whether due to fraud or error, design and perform audit procedures responsive to those risks, and obtain audit evidence that is sufficient and appropriate to provide a basis for our opinion. The risk of not detecting a material misstatement resulting from fraud is higher than for one resulting from error, as fraud may involve collusion, forgery, intentional omissions, misrepresentations, or the override of internal control.
- Obtain an understanding of internal control relevant to the audit in order to design audit procedures that are appropriate in the circumstances, but not for the purpose of expressing an opinion on the effectiveness of the Company's internal control.
- Evaluate the appropriateness of accounting policies used and the reasonableness of accounting estimates and related disclosures made by those charged with governance.
- Conclude on the appropriateness of the directors' use of the going concern basis of accounting and, based on the audit evidence obtained, whether a material uncertainty exists related to events or conditions that may cast significant doubt on the Company's ability to continue as a going concern. If we conclude that a material uncertainty exists, we are required to draw attention in our auditor's report to the related disclosures in the financial report or, if such disclosures are inadequate, to modify our opinion. Our conclusions are based on the audit evidence obtained up to the date of our auditor's report. However, future events or conditions may cause the Company to cease to continue as a going concern.
- Evaluate the overall presentation, structure and content of the financial report, including the
  disclosures, and whether the financial report represents the underlying transactions and events in a
  manner that achieves fair presentation.



## **Independent Auditor's Report To the Members of The Mathematical Association of Victoria**

### **Report on the Audit of the Financial Report**

### Auditor's responsibility for the audit of the financial report continued...

We communicate with those charged with governance regarding, among other matters, the planned scope and timing of the audit and significant audit findings, including any significant deficiencies in internal control that we identify during our audit.

Nexia Melbourne Audit Pty Ltd Melbourne

Nesia

Andrew S. Wehrens Director

Chelveno.

Melbourne

Dated this 16<sup>th</sup> day of April 2019





# Disclaimer of Opinion on Detailed income and expenditure statement for the year ended 31 January 2019

The additional financial data presented on page 29 is in accordance with the books and records of the Company which have been subjected to the auditing procedures applied in our statutory audit of the Company for the year ended 31 January 2019.

It will be appreciated that our statutory audit did not cover all details of the additional financial data. Accordingly, we do not express an opinion on such financial data and we give no warranty of accuracy or reliability in respect of the data provided.

Neither the firm nor any member or employee of the firm undertakes responsibility in any way whatsoever to any person (other than The Mathematical Association of Victoria) in respect of such data, including any errors or omissions therein however caused.

Nenia

Nexia Melbourne Audit Pty Ltd Melbourne

Dated this 16<sup>th</sup> day of April 2019

Andrew S. Wehrens Director

C. Welness.

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ACN 004 892 759

For the Year Ended 31 January 2019

## **Detailed Income Statement**

	2019	2018
	\$	\$
Income		
Membership fees	361,224	343,123
Conference - December	512,917	545,291
Student activities	94,945	195,160
Publications and solutions	328,590	300,738
Services revenue	558,909	486,911
Grants and sponsorships	301,256	406,519
Interest received	3,043	2,840
Miscellaneous income	22,397	17,779
Total income	2,183,281	2,298,361
Less: Expenses		
Advertising and promotion	73,939	52,797
Affiliation fees	45,987	45,925
Auditors remuneration	9,735	9,510
Bank Charges	5,454	4,913
Catering expenses	124,872	110,306
Cleaning	8,479	7,578
Consultants and presenters	459,194	545,353
Depreciation and amortisation	54,733	79,564
Equipment rental	89,600	39,164
Facilities - external	27,294	55,846
Heat, light and power	4,907	4,171
Courier service	3,142	2,089
Insurance	13,643	13,498
Legal fees	5,081	547
Long service leave	(29,639)	6,939
Office expenses	46,991	31,417
Postage and freight	23,497	23,451
Publications, printing and stationery	192,898	182,721
Rates and taxes	4,550	5,160
Repairs and maintenance	9,241	8,415
Royalties and authors fees	70,100	79,239
Wages	739,300	692,633
Staff training	14,057	9,713
Staff and members amenities	2,975	5,055
Subscriptions	8,044	3,454
Superannuation contributions	64,388	54,471
Telephone and fax	8,535	14,714
Travelling and accommodation	64,098	72,697
Workcover	2,247	3,735
Total Expenses	2,147,342	2,165,075
Profit from ordinary activities	35,939	133,286

