



THE MATHEMATICAL
ASSOCIATION OF VICTORIA



THE MATHEMATICAL ASSOCIATION OF VICTORIA ANNUAL REPORT 2017-2018

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VALUING MATHEMATICS IN SOCIETY

**THE MAV IS A MEMBERSHIP DRIVEN ASSOCIATION
WHICH PROVIDES A VOICE, LEADERSHIP AND
PROFESSIONAL SUPPORT FOR MATHEMATICAL
EDUCATION.**

PRESIDENT'S REPORT - MICHAELA EPSTEIN



It is a wonderful opportunity to take on the role of President of MAV. This is an association that has a long history of and an ongoing commitment to working with the mathematics education community. I am always impressed by the diversity of people who are connected to MAV and see

the association as representing their needs in mathematics education: from early childhood, right through to secondary educators, academics from across the state's universities, and those who work in industry. In 2017, MAV recognised two new life members – Elizabeth Burns and Marj Horne – who exemplify this connection. For a number of decades, both women have been actively involved in and supportive of MAV and mathematics education more generally. I am also impressed by the breadth of work that MAV itself does: for and with students, teachers, academics, government, and other organisations. The challenge for MAV is not in identifying what to do next, but in discerning what impact the association might have and ensuring that the activities undertaken are most effective.

More than ever, the role of a body that connects different elements in education is crucial. We live in a world where many people hold strong opinions about what education should look like and what function it should serve. Difference of opinion itself is not problematic, but when those viewpoints occur in isolation we risk misunderstanding the intent of others and making assumptions based on confined perspectives. As a membership organisation, the individuals and institutions who form MAV's members are at the heart of what we do. I am proud that MAV is in a position where it brings different voices together, and through its activities, provides a medium – both online and face-to-face – where ongoing conversation takes place.

So, what has MAV been doing for members and the broader community over the past year? While much work from previous years has continued, I want to specifically touch on that which is new. For students, this has included two events focussed on the importance of mathematics and the possibilities that it brings beyond school: a successful Girls in STEM Day and a presence at the VCE Careers Expo. For teachers, throughout the year the following new opportunities have been available:

- Inaugural Primary Maths Conference: held in collaboration with The University of Melbourne's Mathematics Education Group and attracting over 250 primary teachers and school leaders.
- Expansion in schools' consulting services, particularly amongst primary schools

- New online professional learning, resources on teaching algorithmic thinking and a primary resources page have been developed thanks to Teaching of English and Mathematics Primary (TEAMP) funding via the Victorian Department of Education and Training

Free membership was launched for pre-service teachers at Victorian universities who will be teaching mathematics in the early years or at a primary or secondary level.

Attendance at large-scale events, including Future Schools and the Education Show, with exhibition booths and presentations has enabled more mathematics educators to learn about MAV and what is on offer.

To support the continuation and expansion of these activities and others, MAV has begun work on a sponsorship program. The program will see MAV connecting with and receiving support from larger industry bodies who are invested in the mathematical capabilities and futures of Victorian students. Keep an eye out for more news on this throughout 2018.

Behind the success of the above work is a dedicated team of MAV staff. Peter Saffin, CEO, has now completed a full year in the role. The combination of his educational industry and teaching experience continues to be of great benefit in the perspective and skills he brings to his work at the Association. Peter has worked closely with staff to refine and develop MAV's systems, structures and activities in a thoughtful and deliberate way. In addition to the more visible changes that have occurred, such as new events and updates to MAV website, Peter has led other changes including: upgrades to the Association's IT infrastructure; the development of relationships with key bodies and organisations involved in mathematics education; and improvements to Council processes to aid more effective governance. Each of these areas, importantly, pave the way for ongoing and sustainable progress and future benefits for members.

Alongside MAV staff, Council has had a productive year. We have been fortunate in having new Councillors join us, who together bring expertise from early years education, secondary education, teacher education, education research and the STEM industry. Trish Jelbart, Vice President, has served her last year of a five-year term as Councillor. I would like to thank Trish for her continued dedication to MAV and the passion she has brought to Council in ensuring we are doing our best for all students, particularly those transitioning to tertiary studies.

For the new, as well as ongoing Councillors a Governance Training Day was an important part of the year. For each Councillor, there are legal responsibilities that come with the role of serving on a not-for-profit board. The training provided an overview of these, in addition to sessions on board operations, finances and improving board performance.



MAV's first primary conference, in conjunction with Melbourne University's Graduate School of Education, was a huge success.

In 2018, training will continue and will be differentially targeted to the needs of new and experienced Councillors.

Two other areas of Council work are worthy of note. First, in 2017 the Council established a Finance Committee, whose role is to advise Council on and review the financial management and financial sustainability of the Association. The committee membership includes Daniel Craine, who brings to the group specialist skills and expertise in this area. Daniel is helping to ensure that Finance Committee members are appropriately upskilled and together are operating effectively. Second, throughout the past year Council together with Peter Saffin, other staff and members have developed MAV's new Strategic Plan for the 2018-2020 period. The plan sets out goals that, together, serve MAV's mission. At its heart the goals focus on:

1. Providing benefit and value for all mathematics educators across Victoria
2. Developing partnerships to improve of the quality of mathematics education, and to promote the importance of mathematics in society

3. Increasing advocacy and engagement with key stakeholders around current issues in mathematics education
4. Continuing to improve MAV's operations, management and governance.

The goals include a particular emphasis on ensuring that those students who typically do not take on mathematics at higher levels in secondary school and beyond have access to increased opportunities. Together, the Strategic Plan represents how MAV with the support of members, will work to have a positive impact on outcomes in mathematics education. The ambition laid out in the plan reflects the complexity of educational change and improvement, an ambition that can be met given the passion and dedication of our mathematics education community.

CEO'S REPORT - PETER SAFFIN



What an exciting year! I have now been at MAV for a full annual cycle, and I felt that I was still learning all the way through 2017. I have thoroughly enjoyed the year, and it has been a very rewarding one for MAV also.

During 2017, MAV has improved its position. Revenue increased significantly, across nearly all services, as did participation and attendance by educators and students. Investment was made into MAV infrastructure to ensure an efficient workplace, and a surplus of \$133,286 was achieved.

Notable outcomes include:

- In-School consulting, especially in primary schools grew enormously. One of our biggest challenges was finding enough consultants with the right skills to deliver. MAV is streamlining how this program is supported to ensure quality of delivery in future.
- Professional learning increased in attendance, with a more varied range of opportunities, and further regional and online events introduced.
- Funded projects, supporting the Department of Education and Training and the Australian Academy of Science in developing resources, led to increased income and some great resources now being used in schools.
- Games Days and Maths Talent Quest both increased in attendance, entries and revenue.
- The new Primary Mathematics Education Conference with Melbourne Graduate School of Education, The University of Melbourne, was a great success. This allowed MAV to directly engage further with primary educators in a hands-on way.
- The annual conference saw a significant increase in attendance and revenue. This was backed by increased efficiencies that drove significant cost savings. The conference not only delivered an improved experience but financially supported MAV's success.
- MAVshop increased in revenue through focussed stock selection and targeted marketing, to make sure educators know MAVshop is the easy place to get the latest mathematics resources.
- MAV supported more regional schools than previously, through a series of events, network days and online professional learning. Plans are to expand regional services further in 2018.

It was positive to see growth in school memberships. With greater engagement with schools, expanding services and refined branding and communications, members saw that MAV was demonstrating value. Signs are positive for continued growth of school memberships in 2018.

I would also like to thank our key partners who are mentioned throughout the Annual Report. These partners ensure MAV is up-to-date, working with cutting edge organisations who align to MAV's mission. Your support is greatly appreciated. Especially significant was our renewed Strategic Partnerships Program funding from the Department of Education and Training for 2018 to 2020. This will be used to continue the very successful maths camps for regional students, and to expand online professional learning opportunities for teachers.

Further, I would like to thank the MAV staff, whom I have now worked with for quite some time. Their dedication and ability to work across various projects all the time to ensure we deliver, is amazing. I have said many times that I cannot believe how much we manage to do with so few people! It is a testament to what we can all achieve when we come together as a team.

To meet the challenges of education today, we must think in terms of the coming years. Education is changing, and MAV must lead the way to support maths educators to have maximum impact. MAV must prepare students for a future workforce where open and inquiring minds, and critical, creative and mathematical thinking are required.

Over the past year we have paved the foundation for going forward, and I have been pleased to support the Council with the development of the new 2018 to 2020 Strategic Plan that will strengthen MAV's work in key areas:

1. Delivering value to all members and mathematics educators across the state, in different sectors.
2. Using partnerships to expand MAV's influence and impact while delivering its programs with efficiency.
3. Focusing on advocacy and engagement to increase MAV's profile in Victoria and nationally where appropriate, so that it has a stronger voice in areas aligned to its vision and mission.
4. Streamline and improve MAV's operations, management and governance to prepare MAV for the future as a dynamic, modern and progressive organisation.

My work with MAV staff will include implementing the various initiatives agreed upon by the Council. It is an exciting time that will strengthen MAV's position and contribute to MAV's mission of Valuing Mathematics in Society.

MAV PERSONNEL - 2017

Chief Executive Officer	Peter Saffin
Mathematics Education Consultants	Jennifer Bowden (Primary) Ellen Corovic (Primary) Helen Haralambous (Secondary) Ann Kilpatrick (Secondary) (from April to September 2017)
Membership Officer	Michael Green
Finance Officer	Zofia Wiacek
Administration Assistant	Darinka Rob
Events Manager	Jacqui Diamond
Marketing	Louise Gray, Stitch Marketing

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 Financial Expert), Peter Karakoussis, Trish Jelbart, Peter Saffin (CEO) (Executive Officer)

KEY ACHIEVEMENTS

- Newly established committee in 2017
- Working towards improving financial support for MAV

In 2017 as part of ongoing work around governance of MAV a new Finance Committee was established. This advisory committee provides guidance, support and monitoring for many aspects of the Associations financial activities. This will help support a sustainable robust approach to MAV's future financial management, and best use of member and other funds in delivering value in regard to MAV's mission of Valuing Mathematics in Society.

The Committee includes the Treasurer and Council members, and also an independent person appointed for their special skills and knowledge in financial management.

The Committee has met a number of times and is developing a workplan and reviewing and developing various policies and procedures in regard to financial activities of MAV. This is an exciting development that will ensure a 'best practice' approach in future.



MAV's Maths Camp saw talented regional students come together for a one week exploration of all things STEM.

MEMBERSHIP, MARKETING AND COMMUNICATIONS

COMMITTEE MEMBERS

Trish Jelbart (Convenor), Jim Spithill, Peter Karakoussis, Michaela Epstein, Dan Cloney, Peter Saffin (CEO) (Executive Officer)

MEMBERSHIP

KEY ACHIEVEMENTS

- Increased engagement with primary membership base
- Increase in school membership on prior year, especially primary schools
- Launch of free Pre-service teacher membership for 2018

	2013	2014	2015	2016	2017
INDIVIDUAL MEMBERS	450	454	523	514	461
Associate members	36	33	27	29	27
Early childhood centres	0	0	9	9	0
P-12 schools	138	145	137	135	133
Secondary schools	328	319	310	315	322
Primary schools	487	458	376	382	403
INSTITUTIONAL MEMBERS	989	955	859	870	885
TOTAL	1439	1409	1382	1384	1346

It was a challenging year of work focused on building the membership base, and growth in membership was slow.

Individual membership renewals were down on the prior year after stabilising over time, resulting in an overall drop in total membership. The reasons for individuals dropping their membership are varied, and MAV does not yet have a great enough insight into this trend. It may be due partly to a growth in institutional membership. There will be a strong focus on individual membership during 2018 as part of the strategic plan implementation.

Institutional membership grew for the second year in a row, in both secondary and primary sectors, but was particularly strong in primary schools, which is positive.

MAV has a very high level of membership in secondary schools (approximately 95%) so limited growth can be expected. In P-12 schools MAV has approximately 56% of schools as members, while in primary only approximately 26% of schools are members. This indicates that P-12 and primary schools are opportunities for MAV in the coming year to ensure membership growth.

In 2017 membership growth in primary was due to a variety of factors including strategic marketing and special offers at events.

The new Primary Mathematics Education Conference provided an opportunity for a number of new memberships. MAV's presence in schools for professional development and its ability to demonstrate value to primary schools often resulted in a school becoming a member. It is clear that the MAV needs to engage with schools and key stakeholders within schools directly in order to recruit more members.

Approximately 65% of MAV's member schools are metropolitan, with a much smaller proportion (35%) being in regional areas. As we implement new services to support regional schools, we expect growth in the proportion of regional members in future.

MAV has come a long way in 2017 with respect to understanding its membership position, yet there is more work to be done to focus on member recruitment and retention. This aspect has also been built into MAV's new strategic plan and will be a focus going forward.

Life members

At the 2017 Annual Conference and Christmas celebration, MAV saluted the outstanding contributions to the Association and to mathematics education generally by awarding two new life memberships:

Marj Horne's sustained contributions to the MAV over more than thirty years, her long and distinguished career in teacher education and her involvement to enhancing the role of mathematics in society, particularly through her long commitment to Family Maths, make her truly worthy to be honoured as a Life Member of MAV.

Elizabeth Burns' dedication to her students and to the teaching of mathematics continue to inspire the next generation of teachers. She has made sustained and important contributions to the MAV and AAMT. Elizabeth's accomplishments and contributions to mathematics education are truly worthy of Life Membership of MAV.



Elizabeth Burns and Marj Horne.

MARKETING AND COMMUNICATIONS

KEY ACHIEVEMENTS

- Continued refinement of branding and marketing across all areas of operations
- ‘News’ page added to website to promote key MAV successes
- Strategic approach to marketing particular services at each event or opportunity
- New approach to MAV17 Annual Conference marketing
- New database developed for marketing to organisations who potentially want to access opportunities to promote their products and services
- MAVlist subscribers exceed 17,500 individuals

Throughout 2017 the MAV website was continually improved, with a new homepage design, revised navigation, a partner page and news page being added, and various work done to upgrade subpages throughout the site. Design elements were refined, and the website continues to improve in its effectiveness of branding for MAV.

The approach with communications was focussed on demonstrating the value of MAV’s services, to help build member and educator knowledge of the MAV and its work. In particular, the MAV ‘News’ page on the website became a place to celebrate MAV’s achievements in a timely way. Articles were linked to MAVlist newsletters to share positive stories.

MAVlist continued its role as a core communication platform, and there was a sustained effort to provide a mix of education

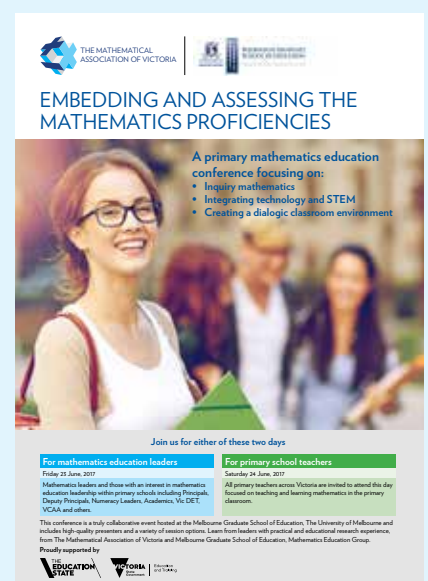
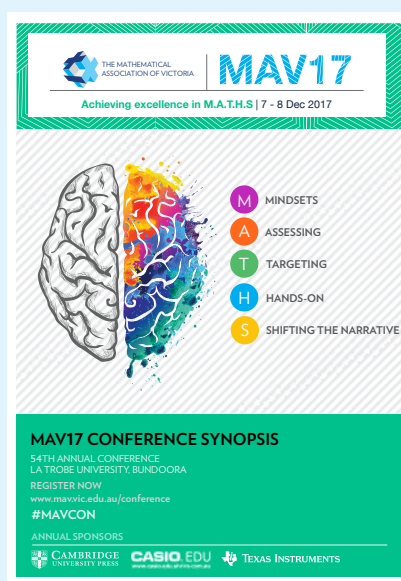
related information and MAV based opportunities for educators and members. Various member only offers were negotiated and presented here to engage members further and show that MAV can provide them with value. There are now over 17,500 subscribers to this newsletter.

The ‘MAV guide’ was a great success in demonstrating MAV’s services, as we provided copies in conference satchels and at all events during 2017. This strategy was part of the rebranding of MAV as a dynamic organisation. The MAV guide provided a marketing piece for people to take away and consider. A more cost-effective version is now available to continue to showcase MAV’s work after the initial period of change.

During the year a professional photographer was engaged for various events, and MAV now has a much-improved photo bank to draw upon in its marketing. These photos provide a realistic representation of MAV’s work and represent a positive view of the services that are provided when used in marketing.

A major milestone was the success of the annual conference website and marketing approaches, which breathed new life into the event and helped increase attendance in 2017. The templates and approaches used will be further refined for 2018 to ensure continued success.

MAV’s marketing during 2017 has presented the Association in a positive light and supports its process of continual improvement in this area.



MATHS ACTIVE SCHOOLS (MAS)

KEY ACHIEVEMENTS

- Three new Maths Active Schools accredited, with a total of 27 schools
- Maths Active Schools hosted and supported key MAV events
- Paul Swan led a highly successful Maths Active Schools event
- A review of Maths Active Schools support materials was undertaken

Leading schools, such as those with Maths Active Schools membership are recognised for effective teaching and learning practices. Such schools have the courage to place student learning in mathematics at the forefront of school business. MAV is proud to support such schools through the Maths Active Schools program and by rewarding them with Maths Active Schools status.

In 2017 three new schools were awarded accreditation for meeting the criteria of effective practices, bringing the total number of Maths Active Schools to 27 schools. The newly accredited schools are; Christ the King (Braybrook), Cranbourne West Primary School and Templestowe Park Primary School (pictured below). 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.

This year, feedback from schools was sought regarding the school support materials. While the report indicated that there is a divide between schools that do and don't use the resource, all agreed that the materials were of high quality. There may be room to further support the schools who are not currently using these resources. An analysis of the renewal survey indicated that Maths Active Schools appreciate being connected with both MAV and each other, and they would like to see this grow to incorporate more networking opportunities and/or school visits.

Several Maths Active Schools were utilised to host MAV events including Ivanhoe Girl's Grammar School, Sunshine College, MacKellar Primary School, Sacre Coeur, and Lumen Christi Catholic College. This is a great benefit to all parties involved including that MAV receives a venue and school-based support, registrations costs are reduced, and the host schools receive some complimentary registrations while being able to promote themselves.



Peter Saffin presents Mark Roberts, Principal of Templestowe Park Primary School, with their Maths Active Accreditation.

PROFESSIONAL DEVELOPMENT

COMMITTEE MEMBERS

Felicity Furey (Convenor), Jamie Gray, Elizabeth Burns, Duncan Symons, Trish Jelbart, Johnson Alagappan, Thomas Moore, Claire Delany, Kerryn Driscoll, Helen Haralambous (Executive Officer)

MAV's Professional Development is focused in three key areas – in school, general and VCE. In addition in 2017 MAV ran for the first time the Primary Mathematics Education Conference in partnership with Melbourne University Graduate School of Education's Mathematics Education Group.

IN SCHOOL PROFESSIONAL DEVELOPMENT

KEY ACHIEVEMENTS

- Primary mathematics education consultants delivered the equivalent of 51 days of primary mathematics PD to a total of 136 participants
- Secondary mathematics consultants delivered a series of after school workshops aimed at Years 7 – 10, each with approx. 20 educators per session
- Secondary mathematics education consultants presented a series of workshops to a secondary school with its feeder (6) primary schools, with 25 maths educators per session
- Primary and secondary education consultants also delivered a series of after school workshops for approx. 25 staff in a special school

Throughout 2017, the MAV Education Consultants and contracted primary consultants ran professional learning workshops in a number of schools, at all levels, from all sectors and from all regions.

The MAV primary education consultants were also contracted to present Family Maths Nights. The MAV secondary education consultants were contracted to present Maths Games Day, including in regional Victoria (Gippsland) and a Maths Games Day as part of National Numeracy week and as part of end of year program. These events reached across a large number of families and students of varying ages and varying school sectors.

GENERAL PROFESSIONAL DEVELOPMENT

KEY ACHIEVEMENTS

At MAV, the Mathematics Education Consultants delivered on a variety of topics, across all levels of schools. Some webinars were also run. The facilities at MAV allow for 24 participants for workshop group settings or 30 for lecture settings. The topics presented were based on teacher feedback, including feedback from the 2016 annual conference. Some examples, with attendance numbers in brackets, are listed below:

- It's called Number AND ALGEBRA: Algorithmic thinking across Primary Years: (Webinar) (71)
- The importance of developing children's counting skills: The move from role to rational counting (webinar) (103)
- It's called Number AND ALGEBRA: Algorithmic thinking across Primary Years (primary) (11)
- Prepping for Foundation: The Best Start – Transitioning students from Kinder to Foundation (primary) (23)
- Using picture books to inspire a working mathematically approach F-6 (23)
- Lessons and tasks that encourage mathematical inquiry – The reSolve Project' (Years P-6) (19)
- A Growth Mindset in Mathematics Learning and Teaching – (Years P-6) (11)
- Number and Algebra: Problem solving for the mixed ability classroom (secondary) (17)
- Algorithmic thinking, flow-charts and coding in transition years (Years 5-8) (23)
- Hands on Algebra (Years 7-10) (10)
- Numeracy Rescue: Differentiation in Number for teachers of Years (5-10) (19)
- Coding - A Hackathon for Beginners (P-6) (28)

Also at Cliveden external presenters presented a variety of workshops, including:

- Enhancing the use of CAS in Mathematical Methods (TI Calculator) Year 10 and VCE Teachers (secondary) (23)
- Dr Paul Swan – Worded questions, problem solving, engaging games and YOUR maths program.(F-10) (23)
- Understanding sampling distributions and hypothesis testing - Specialist Maths(VCE) (19)
- Hands on masterclass (secondary) (22)
- Making connections – Big ideas in mathematical teaching and Learning (F-12) (23)

MAV Education consultants were also invited to present interstate, presenting workshops such as:

- Let's Get Started! Engaging dice and card games to motivate students (Tasmania)
- MASA conference (South Australia)



Teachers explore Bee-Bots, coding and algorithmic thinking as part of the primary conference at Melbourne Graduate School of Education.

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

- Gippsland conference: ‘Engaging all Students in Mathematics’ – (F-10) Keynote Doug Williams, with a variety of workshops from MAV primary & secondary MECs (Jen Bowden & Helen Haralambous). This conference was organised in collaboration with Federation University and was attended by 45 teachers from the region. The Gippsland regional conference was a first for the MAV and due to its success, the MAV is planning similar regional conference for F – 10 Maths teachers in 2018.
- Dr Ian Lowe presented a series of whole day workshops entitled ‘Making Confident Mathematics Teachers’ for Junior Secondary Mathematics teachers.

VCE PROFESSIONAL DEVELOPMENT

KEY ACHIEVEMENTS

The highly in demand VCE PD series was very successful, 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.

Attendance numbers are indicated in brackets.

Four whole day VCE PD days

- Melbourne University (312)
- Latrobe University, Bendigo (63)
- Federation University, Gippsland (54)
- Federation University, Ballarat (70)

Four after school SAC workshops

- Terang (10)
- Thornbury (8)
- Burwood (146)

Six after school Meet the Assessors workshops,

- Geelong (53)
- Horsham (19)
- Williamstown (103)
- Burwood (210)
- Wangaratta (20)
- Terang (10)

Federation University Ballarat was a new venue for a VCE PD Day in 2017, instigated by Federation University. MAVs relationship with Federation University developed further due to the similar day held at the Gippsland campus and as a

result of Helen running an annual Year 8-9 Gippsland Maths challenge day. This VCE event was met favourably with 70 attendees.

As stated above, the VCE PD series of workshops was very successful, being highly in demand from members and non-members, with a total of 1078 teachers accessing VCE PD (499 attended whole day events, 164 attended SAC evenings, 415 attended the Meet the Assessors evenings). Even though 2017 was the second 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 the revised study, new concepts and new assessment requirements and therefore needed support.

PRIMARY MATHEMATICS EDUCATION CONFERENCE

KEY ACHIEVEMENTS

- Leading the way; combining the latest research and practical advice
- 225 delegates over two days
- Focused on mathematics leaders and teachers.

The Primary Leaders and Teachers Conference, Melbourne Graduate School of Education held at The University of Melbourne on Friday 23 and Saturday 24 June was a fantastic success!

225 delegates and over 20 presenters included many MAV members, Victorian teachers and mathematics leaders, and interstate delegates from NSW and Brisbane.

The theme of the conference was 'Embedding and assessing the mathematics proficiencies' with a focus on Inquiry mathematics, integrating technology and STEM, and creating a dialogic classroom.

The conference was a truly collaborative event and included high-quality presenters and a variety of session options. Participants learnt from leaders with practical and educational research experience, from The Mathematical Association of Victoria and Melbourne Graduate School of Education, Mathematics Education Group (MEG). We heard of unsolicited praises and appreciation for the organisation and execution of the event, intellectually stimulating keynote speeches, as well as for the professional and practical workshop sessions. The place was abuzz!



Attendees network at the Primary Mathematics Education Conference.

STUDENT ACTIVITIES

COMMITTEE MEMBERS

Thomas More (Convenor), Felicity Furey, Allason McNamara, Michael Westbrook, Lauren Newton, Mark Gleeson, Kelly Gallivan, Julie Tillyer, June Penney, Andrew Nordoff, Jennifer Bowden (Executive Officer)

MATHS TALENT QUEST

KEY ACHIEVEMENTS

- In 2017 there were 693 entries from 78 schools (an increase of over 100 entries, and 19 new schools)
- Due to our leadership and support, both South Australia and Western Australia were able to conduct their own Maths Talent Quest where they were able to put forward entries into the National Competition.
- Judges from across the country came to Victoria to assist and collaborate with judging the National Competition.
- The outstanding service award for volunteering their time to the Maths Talent Quest for over 30 years went to June Penney and Steve Wilson.

As an integral component of the student activities program the MTQ program caters for student diversity when investigating mathematical topics and connecting them to the real world. Allowing students to use a variety of techniques in their investigation enhances their personal

skills in communicating mathematical concepts to the wider community, be it through essay, innovative investigations presented online, or by embracing emerging technologies. In 2017, there were 693 entries from 78 schools – the highest number of entries to date.

The committee worked to ensure the Victorian MTQ is sustainable and have supported Western Australia and South Australia as they reimplemented the competition at a state level. Jen Bowden also travelled to Hobart to support Tasmanian teachers in developing their understanding of the MTQ. This successful event resulted in three Tasmanian schools entering the MTQ.

In 2017 the MAV successfully hosted the National Maths Judging and Award Ceremony, and we will do so again in 2018 with a succession plan to rotate the National Competition in the future. The National judging took place at MAV with representation from six states (WA, SA, NSW, TAS, QLD and VIC). This was a very successful process, ensuring Australia wide networking and collaboration.

The committee is grateful to the academics, teachers, and volunteers who support the MTQ through a commitment to the judging process. MAV thanks Katherine Seaton and La Trobe University, Bundoora for their support in hosting the State Judging and National Awards Ceremony. In 2018, the committee and MAV staff will work to seek increased sponsorship, donations and prizes for future events.



Balwyn North Primary School receive their High Distinction award for Class 1F's project.



National MTQ awards trophies.



June Penney (Outstanding Service Award) with MAV President Michaela Epstein, Prof. Katherine Seaton, La Trobe University, and Peter Saffin MAV CEO.



National Year 5 class winners, from Santa Sabina College collect their awards.

VCE REVISION LECTURES

KEY ACHIEVEMENTS

- Lectures were held in all four regional areas and four metropolitan locations. (Warrnambool, Horsham, Wangaratta, Sale, Glen Waverley, Caroline Springs, Mt Eliza and Yarra Ranges)
- Yarra Ranges provided a new and 8th location for the Revision lectures in 2017 (up from the usual 7 locations). This came about from a request from the VCE network in the region.
- Registration numbers held from 2016, despite being the second year of the revised study design
- Increase in bulk group bookings by schools
- The lectures were well attended with over 900 students participating statewide, and feedback was positive.
- Venues with highest attendance Glen Waverley (225 attendees at 3 lectures), Mt Eliza (200 attendees at 3 lectures), Caroline Springs (191 attendees at 3 lectures),
- The quality of the revision booklets provided to students was improved

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).

The series of lectures was conducted in September/October 2017 at the following locations:

- Warrnambool
- Horsham
- Wangaratta
- Sale
- Glen Waverley
- Caroline Springs
- Mt Eliza
- Lilydale High School (hosted for Yarra Valley and Yarra Ranges VCE Network)

Registration numbers held from 2016. There was an increase in group bookings, with many more schools choosing to register school groups rather than relying on students getting online and self-registering. The teachers who accompanied these students were very positive about the lectures.

In some cases, schools partly subsidised student registration using Gonski funding.

MATHS GAMES DAYS/FAMILY MATHS

KEY ACHIEVEMENTS

- The MAV supported 11 Maths Games Days and five Family Maths Nights across Victoria throughout the year.
- Throughout 2017, there has been a growing interest in Maths Games Days from our regional areas.
- MAV staff have worked to formalise sponsorship, exhibitions and donation of prizes for these days to reduce the workload on teachers.
- The Gippsland Games day has now been embedded as part of this series.
- Helen Haralambous developed a fantastic resource titled '21 Games for Games Days' which schools have started to purchase and implement when running these events.

During 2017, Education Consultants and contractors hosted five Family Maths Nights across the state. There were also two Family Maths Mornings held to support parents in schools. Whilst numbers of schools contracting a MAV consultant have slightly declined, it is evident that these events are being held across schools and supported by MAV resources.

The State-Wide games days have continued to be a remarkable success across Melbourne, with over 2000 students taking part statewide. The Maths Games Days gave students an opportunity for students to develop their mathematical talents and thinking skills in a setting where maths is regarded as fun and worthwhile. Problem-solving and mathematical games address the Victorian Curriculum proficiency strands.

Teams of four students competed for a variety of prizes including individual prizes for creativity and contribution to group work. Secondary teachers also had an opportunity to meet colleagues from other schools, attend a professional learning activity and to inspect displays of teaching resources.



MAV's new publication supports schools to implement their own games days.

GIRLS IN STEM

KEY ACHIEVEMENTS

- 170 Year 9 and 10 girls attended
- Inspiring role models from industry
- Texas Instruments provided hands-on coding activity

On June 28 2017 MAV successfully held its first Girls in STEM Day. The event was aimed at girls in Year 9 and 10 and provided inspiration from women who have forged impressive careers in STEM. Special Guest Maxine McKew gave an inspiring welcome and set the scene covering the importance of curiosity as a foundation for success. The MC, Felicity Furey, a MAV Council member, engineer and entrepreneur guided the day as students heard from five leading industry experts in a range of fields about their experiences working in STEM focused careers.

Industry based speakers included:

- Jacinta den Besten, Physicist, Melbourne University
- Monika Janiak, Environmental Scientist, GHD
- Chivonne Hollis, Architect, CHT Architects
- Megan Evers, Civil Engineer, Level Crossing Removal Authority
- Frances Palmer, Product Design Engineer, Nissan

All emphasised the importance of mathematics required for success.



Each person had a different story to tell about their journey, the contributions they have made, the impact of being a female, tips for success, and how they overcame obstacles along the way. The day culminated in a hands-on activity, run by Texas Instruments and the students engaged in some coding using the 'TI Innovator'.

Students and teachers alike were impressed by the speakers' stories:

'I found mathematics difficult and couldn't really see why it was important in the long run. I was so wrong!'

'I have a real passion for science and would love to become a geologist, so attending this event allowed me to see what kind of careers I can do in the scientific field.'

'Be prepared to give things a go, don't worry if you do not know what you want to do in a career, take time to find the thing that you are passionate about but keep on with your STEM studies.'

'The variety of careers, and understanding that engineering is not just a few types, but many and varied. Use of maths is important in those careers.'

'As a teacher I need to open student's minds to the options. Challenge them to delve into investigations and understanding of how things work. The coding was great fun.'

The event was sponsored by Texas Instruments, with GHD sponsoring morning tea.

MAV thanks these sponsors, all other companies that contributed support, in addition to all of the speakers and their organisations for their support in running this brilliant event. MAV also thanks Ivanhoe Girls' Grammar School for hosting the event.



ANNUAL CONFERENCE

COMMITTEE MEMBERS

Ann Downton (Convenor), Johnson Alagappan, Leicha Bragg, Trish Jelbart, Thomas Moore (new member mid-year), Sally Polson, Frances Sidari (stepped down mid-year), Leigh Thompson, Peter Saffin (CEO), Jacqui Diamond (Events Manager)

KEY ACHIEVEMENTS

- Increased attendance numbers
- Improved marketing strategy
- Increased profit
- Improved professionalism of conference

The 54th MAV (MAV17) annual conference *Achieving Excellence in M.A.T.H.S* was a great success. MAV17 was held at the La Trobe University, Bundoora, from 7 – 8 December 2017 and focused on investigating the most effective approaches, tools and new technology, that education professionals can use to improve student learning outcomes.

Our major operational goal was to increase attendance numbers. The conference was attended by 1623 participants, which was an increase of 16% from 2016 (1399).

The early bird rate, introduced in 2016 was again promoted in 2017 but was only taken up by a small number of delegates. As a committee it was decided to keep the registration fee for delegates at 2016 prices but introduce a presenter fee of \$89, to assist with growing overhead cost that was being carried by delegates. On the whole presenters accepted this change and were happy to pay in support of the conference, enabling a more sustainable event in future.

There were six keynotes per day with the international speaker (Dan Finkel) presenting on both days. Keynote speakers were selected from their expertise in early years, primary, secondary, or across all levels and linked to a key aspect of our conference theme (Mindset, Assessing, Targeting, Hands-on, Shifting the narrative). Last year we included the recipient of the Victorian outstanding school achievement award and in keeping with this initiative, this year we had the recipient of the Victorian Department of Education Outstanding Secondary Teacher Award (Hayley Dureau).

The keynotes, link to the theme and focus of their presentation are presented in the table below.

KEYNOTE	SUB-THEME	YEAR LEVEL	TITLE
THURSDAY 7 DECEMBER			
Catherine Attard	Hands-on	Early years	Engagement and mathematics: What is it, and what does it look like?
Dan Finkel	Targeting	Primary	Making and breaking conjectures
Sarah Hopkins	Targeting	Primary/early secondary	Strategy choice is the key for building fluency: New approaches for teaching the basic facts to children who are falling behind
Hayley Dureau	Shifting the narrative	Secondary	Maths Bootcamp and the lessons I learned...
Dave Tout and Ross Turner	Assessing	All levels	Two oldish codgers reflecting on what excellence means in maths education, with a focus on the critical role of assessment
David Butler	Mindset	All levels	Playful and enjoyable maths
FRIDAY 8 DECEMBER			
Amy McDonald	Assessing	Early years	Assessing young children's mathematical strengths
Sarah Ferguson	Targeting	Primary	Targeting student understanding
David Clarke and Carmel Mesiti	Mindset	All levels	The International Lexicon Project: Giving a name to what we do
Norman Do	Mindset	Secondary	How, what and why I think about maths
Dan Finkel	Hands-on	Primary	Hands-on, pure mathematics
Trish Jelbart, Cathy Bushell and Nicole Merlich	Shifting the narrative	Secondary	Success in tertiary education requires maths!

MAV would particularly like to thank the three 2017 Annual Partners for their ongoing support for the Annual conference.



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TEXAS
INSTRUMENTS



MAV exhibition provided delegates access to a wide variety of over 50 providers, and an opportunity and space to network.

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 international presenter. A few comments from delegates included:

'Fabulous and thought-provoking keynote', 'One of the best keynotes I have attended. I have already found ways I might incorporate the things I learned.' 'Great to be affirmed that it is okay to teach and do maths just for the love of it, and that this should be nurtured in our students. Excellent speaker. Dan made a compelling argument for mathematics as a pure pursuit.'

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 314 sessions offered across the two days offered to our 1464 delegates this year.

The Conference Proceedings were again published online and the design updated to reflect the Conference theme and style of the MAV publications. The mathematics staff in the Faculty of Education at RMIT: Rebecca Seah (Chief Editor), Marj Horne, Jude Ocean, and Claudia Orellana, did an outstanding job in editing the MAV17 proceedings, and I am extremely grateful to them for giving their time and expertise to undertake this role. They received 39 papers for review and 38 were published in the Proceedings. Thanks also to the team of external volunteer reviewers.

This year there was a concerted effort to improve our marketing strategy with the outcome of increasing awareness

of the conference and participant numbers. Part of the marketing strategy was to develop a conference website that looked modern, user friendly and could be used as a template for future conferences. This initiative received positive feedback from the MAV community.

Improved professionalism of the conference was also a further goal. Improvement strategies focused on the conference content, registration process, venue, catering, and the exhibition. Feedback from delegates in a post conference survey indicated that the majority of respondents (70%) rated the conference content, registration process, and venue as excellent or very good. Based on delegate and other feedback, further new initiatives are underway for 2018 to demonstrate continuous improvement in the conference experience.

Financially the conference was very positive for MAV. The forecast profit was exceeded largely due to savings in printing, promotional items, postage, venue hire, and audio-visual equipment; there was an increase in revenue from sponsorship, exhibition sales, introduction of a presenter fee and increased number of delegates. The overall financial result was very positive and improved the conference performance.

The Conference Convenor would like to thank Jacqui Diamond (Events Manager), Peter Saffin (CEO), our hard-working conference committee, MAV staff and all those people who committed their time, energy and expertise to presenting such high quality, thought provoking sessions. It was a privilege to be Convenor of the committee.

PUBLICATIONS

COMMITTEE MEMBERS

Peter Karakoussis, Roger Walter, Louise Gray, June Penney, Trish Jelbart, Terence Mills, Ellen Corovic, James Russo, Sarah Ferguson (retired Dec 2017)

JOURNALS

KEY ACHIEVEMENTS

- MAV's journals and magazine have published articles featuring a growing bank of authors from university academics to practising classroom teachers.
- The standard of the publications remains high with members citing the journals as being a key member benefit
- Teachers across the MAV membership base are proactively submitting content and feel well supported by journal editors.
- New editor James Russo appointed to *Prime Number* from 2018

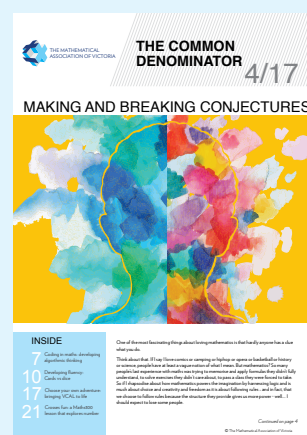
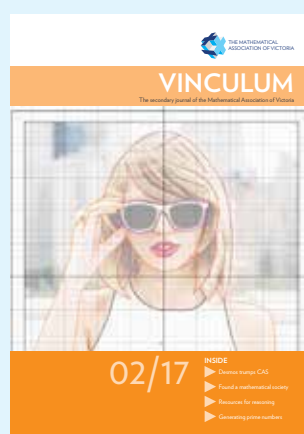
MAV's two journals, *Prime Number* (primary focus) and *Vinculum* (secondary focus) continue to be well regarded amongst Victorian mathematics educators. These journals are a tangible benefit to the MAV's members and are produced each term.

In late 2017, *Prime Number* editor Sarah Ferguson stepped down from her role. Sarah had edited *Prime Number* for five years and in that time had encouraged and supported many primary teachers to get their ideas out to the world. MAV thanks Sarah for her time, effort and contribution to *Prime Number*. In January 2018, James Russo took over as editor. James is keen to strike a balance between educational research and practical classroom-based activities. He would like *Prime Number* to become a forum for bi-directional dialogue between mathematics education researchers and practising teachers with issues being explored through multiple lenses, a university academic and a practising classroom teacher for example.

Roger Walter continues to edit *Vinculum* with flair and precision. The primary focus for *Vinculum*, since its inception, has been as a vehicle for teachers sharing ideas. A secondary but no less important objective of *Vinculum* is to communicate the joy of mathematical discovery and share the intrinsic interest in the fascinating subject we call mathematics, and encourage students to do their own exploring in mathematics. *Vinculum* is attracting a wide variety of authors and the articles in the publication are educationally rigorous. In addition, *Vinculum* has developed regular columns with interested and author/experts including Bruce Ruthven, Terence Mills and Dr Norman Do. Overall, a good balance of interesting and useful material has been published.

MAV's magazine *Common Denominator* is a strong vehicle for member communication. The magazine content spans early childhood through to VCE and VCAL. The emphasis is on MAV's contribution to mathematics education in terms of student activities, professional development, resources and profiling opportunities, such as Mathematics Active Schools.

The publications are mailed to teachers at the beginning of each term and this provides a revenue generating opportunity for MAV which offers commercial organisations the option to insert materials into the mail out. That, combined with advertising within the publications has provided a steady stream of income to MAV.



MAV SHOP

KEY ACHIEVEMENTS

- Revenue growth on prior year
- Exceptional sales at MAV17 Annual Conference of \$18,625
- 30 new products and product range expanded
- Stock well managed and old stock reduced
- Revenue for the MAVShop increased in 2017, growing from \$207,294 in 2016 to \$228,735 in 2017, a 10% increase in revenue.

There was again an emphasis on promoting new titles and other products regularly in all newsletters and communications. Mid-2016 new print catalogues were produced for the first time for primary and secondary products and handed out to teachers at all events and included in the mid-year mailout. After this change in approach sales increased and were over budget each month, after a comparatively slow start to 2017.

Teachers responded well to having a printed catalogue to reference prior to making purchasing decisions and this strategy will continue in 2018. Products were also strategically promoted at all events including professional learning. This often resulted in increased sales after an event. All staff are taking a greater responsibility for promoting products as part of their role, and this is now front of mind for all events.

Stock was managed well with 30 new titles introduced throughout the year, including five new badges to help refresh the badges product line.



In relation to VCE, resources the following were produced:

- 12 new 2017 – 2018 resources published for Mathematics Methods, Further Maths, and Specialist Maths, with an 'All Studies' bundle available for each product at a discounted price.
- Resources include MAV Solutions to VCAA Exams, MAV SACs Suggested Starting Points and MAV Trial Exams.
- Sales of these VCE resources were on par to the previous year's sales.

MAVshop at the MAV17 annual conference was a great success, with a new location we had more floor space and opportunity to showcase product. Sales at the conference were significantly higher than the prior year increasing from \$14,000 to approximately \$18,625. This was a great success and also helped to promote the MAV brand by providing a professionally presented store front.



MAVshop at the annual conference was great success!

MADE BY MATHS

KEY ACHIEVEMENTS

- Release of SPP funded Explore your world walk
- 1440 iOS and 74 Android downloads (including 106 paid)

During the past twelve months, the Made By Maths app has maintained its user base level. It continues to gather interest from regional parties for the development of further location specific walks. Teachers also continue to show interest in the app. There is a great opportunity to capture this market with the right time and financial investment.

In 2017 the Explore Your World walk was released as part of projects delivered for SPP funding. This walk has been designed for students in the middle years (Levels 5 – 9) to be completed on any school grounds.

There are currently five walks published over four locations:

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



PROJECTS AND PARTNERSHIPS

During 2017 MAV undertook projects with various partners. MAV would like to thank all of those who it has collaborated with. There are many, and not all can be included here. The following is a selection of key partners that have worked with MAV in 2018.

VICTORIAN DEPARTMENT OF EDUCATION AND TRAINING (DET)



MAV was pleased to announce in late 2017 that it has received funding from the Victorian Department of Education and Training through the Strategic Partnerships Program (SPP) for the next triennial from 2018 to 2020. This funding will allow MAV to continue to run its Maths 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.

In 2017 MAV completed the third year of its funding from the current SPP cycle delivering great value to the mathematics education sector through the three key projects outlined below:

SPP: TEAM:P

KEY ACHIEVEMENTS

- 301 people attended the online and face-to-face professional learning sessions
- Development of resources for algorithmic thinking
- New Primary Resources pages launched within main MAV website

After a review of the TEAM:P project during early 2017 the MAV identified a number of priority areas in which to support primary teachers for the remainder of 2017 using the SPP funding more effectively. Priority areas were identified through a review committee including the CEO, MAV Primary Education Consultants, and 2 Council members with primary and early-years experience.

The 2017 program focussed on three initiatives:

1. 10 Classroom resources were produced to support Algorithmic thinking. These classroom resources target the Victorian Curriculum in relation to the specific content descriptors for algorithmic thinking from year 4 to 6 under Patterns and Algebra.

2. Professional Learning (PL), online and face-to-face:

- a. Early years, with a focus on the 5 principles in counting in the early years.
- b. Primary year 2 to 6, with a focus on algorithmic thinking in 2017. This PL linked to the resources in point 1 above, and met current teacher needs in this area that the MAV has identified as priority.
- c. Transition in K-F, where MAV have done some work before, and recognise that support is required. This was aligned to the EYLDF Supporting Children's Transitions, and Transition to school initiatives.

Webinar sessions were provided through Polycom in collaboration with the DET Virtual Learning Coaches to ensure maximum penetration and exposure to DET teachers. This also allowed MAV to support regional schools as well as metro schools. The sessions were free of charge to attendees regardless of school system.

3. A new primary resources section was produced using the best of the links and resources from the TEAM:P website, but under the main MAV website. The creation of primary and early years support pages received excellent feedback. Web stats indicate a fantastic initial uptake of resources outperforming visits to the old TEAM:P website by far. Between launch in mid-October 2017 and March 2018 the pages had received over 18 000 visits.



SPP: MATHS CAMPS

KEY ACHIEVEMENTS

- 20 students of high mathematics potential selected and attended the 5-day camp in Melbourne
- Support from industry partners was very strong, adding great value to the experience
- Student continue to engage in a network of like-minded peers

The 2017 camp involved partnership with 4 varied mathematical industry leaders: Reserve Bank Australia, Ford, VSSEC [Victorian Space Science Education Centre], Defence Science and Technology [DST] Group). These industries through workshop presentations to the students demonstrated how they relied on a mathematical base. The industries also presented a real-life problem that they would typically face to the students, to solve as a team. The partners through both the workshop and providing a mentor to work with the students on the project, provided inspiration for students to continue studying mathematics in tertiary years.

Students in teams of 5 were presented with a real open-ended project in their field of choice (from the 4 categories - Engineering, ICT, Economics/commerce or Scientific research) to work on over the week.

Mathematicians sourced with the assistance of the Australian Mathematical Sciences Institute also worked with students in an allocated one hour slot each afternoon at RMIT and were available via email to communicate with students throughout the week. This provided students with contacts in Mathematical industry fields.

At the end of the week the students in their project team presented their findings at LaTrobe University to an audience of peers, parents, teachers and industry mentors. Upon returning to school many students wrote articles for the school newsletter, local newspaper. One of the teachers from a school with participating students wrote an article in the Common Denominator, about the benefits of the program to the participating students. This article outlined the important influence the program had for students contemplating a mathematics career, or a career where mathematics knowledge and application is essential.

Student feedback was overwhelmingly positive towards their camp experience!

MAV is very pleased that with the ongoing funding from 2018 to 2019 this valuable camp can continue.



Students visit Ford while attending the maths camp and experience augmented reality

PROJECTS AND PARTNERSHIPS (CONTINUED)

SPP: MEETING DIVERSE STUDENT MATHEMATICAL NEEDS

KEY ACHIEVEMENTS

- Two new Made by Maths walks released – See also under Student Activities Section
- Regional schools supported in implementing engagement activities: Maths Games Days
- 33 schools directly supported by MAV consultants under Mathematical Safety net

1. Made by Maths App

In 2017 MAV launched two Made by maths walks to engage students in mathematical experiences related to the real world.

In May 2017, at the MAV AGM with 60 people in attendance, we launched the National Sports Museum (NSM) Walk. This walk was produced in collaboration with the NSM and written by Professor Katherine Seaton from La Trobe University. The walk has been very positively received, with attendees at the AGM given time to explore the museum using the app. This walk is free for anyone attending the NSM.

A second new walk called 'Explore Your World' became available in Term 4 2017. This walk is free for any user and may be used in any school ground. A workshop offered at annual conference had 20 people attend and learn more about these walks.

2. Regional games days

MAV offered support to a number of regional schools to set up games days in their area including Mansfield, Robinvale, and Mildura. In addition MAV worked again with those in regional areas already providing this fantastic opportunity.

The face-to-face regional Gippsland regional Games Day held at Federation University was a success, with increased student participation a wider net of schools from the Gippsland region.

The Mansfield (Year5/6) event was supported through MAV education consultants providing advice and resources to the coordinating teacher at Mansfield. This included liaising with a Melbourne coordinator and the Mansfield coordinator to open up communication channels between the two. The Robinvale (Year 7 day) and Mildura (Year 6 day) events were supported by MAV education consultants providing advice and resources to the coordinating teachers to implement the program. Feedback was overwhelmingly positive in regards to each event.

MAV plans to continue expanding games days into regional areas in 2018 where possible.

3. Mathematical safety net and support for regional schools

MAV supported many schools directly in regional areas including:

- Initial school visits x 33 - usually meeting with Head of Maths or equivalent or school leadership
- In School presentations/workshops with faculty or year level of teachers x 25
- Working with students/class demonstrations x 23 - total number of students 160
- Meetings with KLAs x 12
- Meetings with Principal/AP x 5

The approach in 2017 was to understand the needs and priority of each school, and provide support accordingly. The most common issue needing to be addressed was student engagement, which underpinned lack of overall performance of students as shown in the school data. Schools were then presented with a number of ideas/resources to embed in their programs to cultivate student engagement hopefully leading to improved student learning and outcomes.

The aim was to offer schools ideas/resources particularly for Years 7 and 8 to build teacher capacity and enable enhanced student engagement leading on to improved student outcomes.

Overall the evaluation results received were very positive with a number of staff quite excited about a concrete, comprehensive approach embedding High Impact Teaching Strategies (HITS) and in alignment with the Victorian Curriculum.

At this stage, many schools have responded favourably to the ideas/resources presented with 4 - 6 schools making a firm commitment to implement ideas and approaches in across Year 7 in 2018. The same schools and others are seeking further support from MAV in 2018.

MATHS RESOURCE DEVELOPMENT

KEY ACHIEVEMENTS

- MAV reviews and develops new content for Fuse
- MAV develops content for the new Mathematics Companion

Throughout 2017 teams of MAV consultants worked to support the DET in implementing their numeracy strategy. A variety of projects were completed focusing on the development and review of resources including those in FUSE, and the creation of a new Mathematics Companion

which will be part of the Numeracy Toolkit currently under development. Work is to continue into 2018, and the MAV is proud to contribute to the development of some excellent support for teachers.

VICTORIAN MATHS CHALLENGE

KEY ACHIEVEMENTS

- MAV worked throughout 2017 in support of the DET Victoria Maths Challenge
- Online resources reviewed
- New digital content being created for the future

We can't say too much at this stage, but MAV is very excited to have supported the development of some great new resources soon to be released by the DET. These resources will excite and engage students from Foundation to year 10, providing an opportunity for them to experience maths in a engaging and non-threatening way.

VICTORIAN RESPONSIBLE GAMBLING FOUNDATION

KEY ACHIEVEMENTS

- Further support provided for School Education Program
- VCAL Resources continue to evolve based on school feedback



MAV worked throughout 2017 to support the Foundation in its goal of producing high quality resources for VCAL students, that teach students about These resources provide a means by which teachers can deliver and develop numeracy, while tackling the social issue of responsible gambling.

As we move into 2018 MAV will work with the Foundation on revising the previously released resources. MAV thanks the Foundation and looks forward to a productive relationship in future.

To find out about the resources visit:

www.responsiblegambling.vic.gov.au/awareness-and-prevention/school-education-program

AUSTRALIAN ACADEMY OF SCIENCE: RESOLVE

KEY ACHIEVEMENTS

- MAV proudly supported the authoring of resources in two 'special topics' for reSolve Maths by Inquiry
- MAV included reSolve resources in its professional learning program

During 2017 MAV contracted authors on behalf of the Australian Academy of Science, who were working on the content of two reSolve special topics:

- Algebra in the real world (Completed in January 2018)
- Mathematics and algorithmic thinking (ongoing development in 2018).

During 2017 MAV also ran a successful professional learning event specifically promoting the use of these resources. MAV has also been promoting the resources in its professional learning throughout 2017, using the resources as exemplars that demonstrate excellence in pedagogy and approaches to teaching and learning.

MAV would like to thank the Academy for the opportunity to work with them. MAV is now collaborating with the Academy, AAMT, and other education partners including the VCAA, DET, Independent Schools Victoria and the Catholic Education Office on the implementation of the reSolve resources in schools. This work continues into 2018 and we look forward to seeing these fantastic resources used across the state.

www.resolve.edu.au

ACER



During 2017 MAV and ACER established a relationship, offering each other mutually beneficial support. This included advertising opportunities enabling each partner to reach a greater audience to promote their events and services. MAV and ACER plan to explore further possibilities over time, and look for synergies that can drive increased outcomes for mathematics educators. Currently MAV and ACER for example are discussing how MAV may support the International Mathematical Modelling Challenge. ACER's strength in research and assessment and MAV's expertise in mathematics education when combined provides opportunity for greater impact on learning and educational outcomes.

FELSTEAD EDUCATION

Felstead Education started their relationship with MAV in 1988 with a long running maths stage show, 'The History of Maths'. Felstead's motto of helping students to 'See maths from a different angle' resonated strongly in schools leading to MAV supporting Felstead's love of numbers and performance to produce 'Famous Female Mathematicians', 'Maths and Cricket', 'Maths and Soccer' a pilot for a TV series titled 'Maths Secret Agent', and now the latest production – 'The Maths Show'. MAV is the primary sponsor of the 'The Maths Show' and has produced related support resources for teachers to use in the classroom after attending the show.



MELBOURNE GRADUATE SCHOOL OF EDUCATION, THE UNIVERSITY OF MELBOURNE



MAV and the Mathematics Education Group (MEG) within the Melbourne Graduate School of Education at The University of Melbourne combined forces to deliver an inaugural two-day primary mathematics education conference. For more information see under the Professional Learning section of the Annual Report.

Both MAV and MEG plan to extend their impact beyond this event, with further projects that reach out to primary schools and mathematics educators. Together the MAV and MEG add to each other's individual impact, drawing on each other's expertise to create rich experiences and events.

SPONSORS

MAV is supported by various sponsors, across a broad range of events and services.

To all organisations that sponsored our events and services, MAV says thank you and we look forward to working with you again in future.

If you are interested in sponsorship opportunities related to any of our programs, please contact the MAV office on (03) 9380 2399.

THE MATHEMATICAL ASSOCIATION OF VICTORIA

FINANCIAL STATEMENTS
FOR THE YEAR ENDED 31 JANUARY 2018
ACN 004 892 755

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The Mathematical Association of Victoria

ACN 004 892 755

Directors' Report

31 January 2018

The directors present their report on The Mathematical Association of Victoria for the financial year ended 31 January 2018.

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 Elizabeth Burns (Retired 16 May 2017)

Qualifications Teacher

Special responsibilities Secretary

Mr Rhys Coulson (Retired 16 May 2017)

Qualifications Teacher

Dr Ann Downton

Qualifications University lecturer

Mr Trevor Faure (Retired 16 May 2017)

Qualifications University lecturer

Dr Marjorie Horne (Retired 16 May 2017)

Qualifications University lecturer

Special responsibilities Past President

Ms Patricia Jelbart

Qualifications Teacher

Special responsibilities Vice President

Ms Rhiannon Lowrey (Resigned 15 February 2017)

Qualifications Teacher

Special responsibilities Vice President

Ms Allason McNamara

Qualifications Teacher

Special responsibilities Past President

Ms June Penney (Retired 16 May 2017)

Qualifications Teacher

Ms Francesca Sidari (Retired 16 May 2017)

Qualifications Teacher

Special responsibilities Vice President

Mr James Spithill

Qualifications Research fellow

Special responsibilities Immediate Past President

The Mathematical Association of Victoria

ACN 004 892 755

Directors' Report

31 January 2018

1. General information

Information on directors

Dr Max Stephens	(Retired 16 May 2017)
Qualifications	University lecturer
Special responsibilities	Treasurer
Mr James Gray	
Qualifications	Teacher
Mr Oliver Lovell	
Qualifications	Teacher, Consultant
Ms Michaela Epstein	
Qualifications	Head of Learning
Special responsibilities	President
Ms Felicity Furey	(Appointed 16 May 2017)
Qualifications	Engineer
Special responsibilities	Vice President
Dr Dan Cloney	(Appointed 16 May 2017)
Qualifications	Research Fellow
Mr Peter Karakoussis	(Appointed 16 May 2017)
Qualifications	Teacher
Mr Terence Mills	(Appointed 16 May 2017)
Qualifications	University Professor
Mr Michael O'Connor	(Appointed 16 May 2017)
Qualifications	Schools Outreach Manager
Special responsibilities	Secretary
Mr Thomas Moore	(Appointed 16 May 2017)
Qualifications	Post Graduate Student/Consultant
Ms Claire Delaney	(Appointed 16 May 2017)
Qualifications	Teacher
Mr Juan Ospina Leon	(Appointed 29 May 2017)
Qualifications	Teacher
Special responsibilities	Treasurer

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

The Mathematical Association of Victoria

ACN 004 892 755

Directors' Report

31 January 2018

1. General information (continued)

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 2018 the collective liability of members was \$26,920 (2017: \$27,680).

2. Operating results and review of operations for the year

Operating results

The profit of the Company amounted to \$133,286 (2017: \$32,902).

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.

The Mathematical Association of Victoria

ACN 004 892 755

Directors' Report

31 January 2018

3. Other items (continued)

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.

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 Elizabeth Burns	2	1
Mr Rhys Coulson	2	-
Dr Ann Downton	6	4
Mr Trevor Faure	2	1
Dr Marjorie Horne	2	1
Ms Patricia Jelbart	6	5
Ms Rhiannon Lowrey	1	1
Ms Allason McNamara	6	4
Ms June Penney	2	1
Ms Francesca Sidari	2	2
Mr James Spithill	6	6
Dr Max Stephens	2	2
Mr James Gray	6	5
Mr Oliver Lovell	2	-
Ms Michaela Epstein	6	6
Ms Felicity Furey	4	4
Dr Dan Cloney	4	2
Mr Peter Karakoussis	4	4
Mr Terence Mills	4	3
Mr Michael O'Connor	4	4
Mr Thomas Moore	4	4
Ms Claire Delaney	4	4
Mr Juan Ospina Leon	4	3

The Mathematical Association of Victoria

ACN 004 892 756

Directors' Report

31 January 2018

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 2018 has been received and can be found on page 6 of the financial report.

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

Director: 
Ms Michaela Epstein

Director: 
Mr Juan Ospina Leon

Dated this 17th day of April 2018

The Mathematical Association of Victoria

ABN 004 892 755

**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 2018, 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 17th day of April 2018****Andrew S. Wehrens**

Director

The Mathematical Association of Victoria

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Statement of Profit or Loss and Other Comprehensive Income For the Year Ended 31 January 2018

		2018	2017
	Note	\$	\$
Revenue	4	2,277,742	1,673,392
Other income	4	20,619	22,610
Employee benefits expense		(747,165)	(570,308)
Depreciation and amortisation expense		(79,564)	(99,007)
Membership expenses		(105,179)	(82,249)
Publications and journals		(256,339)	(214,975)
Annual conference		(192,463)	(260,887)
Student activities		(119,256)	(94,710)
Professional development		(189,085)	(105,740)
Other expenses		(476,024)	(235,224)
Profit for the year		133,286	32,902
Other comprehensive income			
Items that will not be reclassified subsequently to profit or loss			
Net gain on revaluation of non-current asset		-	25,295
Other comprehensive income for the year		-	25,295
Total comprehensive income for the year		133,286	58,197

The Mathematical Association of Victoria

ACN 004 892 755

Statement of Financial Position As At 31 January 2018

	Note	2018 \$	2017 \$
ASSETS			
CURRENT ASSETS			
Cash and cash equivalents	6	458,659	386,707
Trade and other receivables	7	135,258	126,854
Inventories	8	30,163	42,298
Other assets	11	102,498	47,370
TOTAL CURRENT ASSETS		<u>726,578</u>	<u>603,229</u>
NON-CURRENT ASSETS			
Property, plant and equipment	9	1,663,304	1,653,571
Intangible assets	10	49,792	113,878
TOTAL NON-CURRENT ASSETS		<u>1,713,096</u>	<u>1,767,449</u>
TOTAL ASSETS		<u>2,439,674</u>	<u>2,370,678</u>
LIABILITIES			
CURRENT LIABILITIES			
Trade and other payables	12	240,017	318,996
Employee benefits	14	151,228	130,530
Other liabilities	13	175,824	187,017
TOTAL CURRENT LIABILITIES		<u>567,069</u>	<u>636,543</u>
Employee benefits		<u>7,604</u>	<u>2,420</u>
TOTAL NON-CURRENT LIABILITIES		<u>7,604</u>	<u>2,420</u>
TOTAL LIABILITIES		<u>574,673</u>	<u>638,963</u>
NET ASSETS		<u>1,865,001</u>	<u>1,731,715</u>
EQUITY			
Reserves	15	1,346,531	1,346,531
Retained earnings		518,470	385,184
TOTAL EQUITY		<u>1,865,001</u>	<u>1,731,715</u>

The accompanying notes form part of these financial statements.

The Mathematical Association of Victoria

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Statement of Changes in Equity For the Year Ended 31 January 2018

2018

	Retained Earnings	Revaluation Reserve	Total
	\$	\$	\$
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

2017

Balance at 1 February 2016	352,282	1,321,236	1,673,518
Profit for the year	32,902	-	32,902
Total other comprehensive income for the period	-	25,295	25,295
Balance at 31 January 2017	385,184	1,346,531	1,731,715

The Mathematical Association of Victoria

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Statement of Cash Flows For the Year Ended 31 January 2018

	2018	2017
Note	\$	\$
CASH FLOWS FROM OPERATING ACTIVITIES:		
Receipts from customers, members and grants	2,275,924	1,699,107
Payments to suppliers and employees	(2,181,601)	(1,632,731)
Interest received	2,840	2,173
Net cash provided by operating activities	18 <u>97,163</u>	<u>68,549</u>
CASH FLOWS FROM INVESTING ACTIVITIES:		
Purchase of property, plant and equipment	<u>(25,211)</u>	(5,235)
Net cash used in investing activities	<u>(25,211)</u>	(5,235)
Net increase in cash and cash equivalents held	71,952	63,314
Cash and cash equivalents at beginning of year	<u>386,707</u>	323,393
Cash and cash equivalents at end of financial year	6 <u><u>458,659</u></u>	<u><u>386,707</u></u>

The accompanying notes form part of these financial statements.

The Mathematical Association of Victoria

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Notes to the Financial Statements

For the Year Ended 31 January 2018

The financial report covers The Mathematical Association of Victoria as an individual entity. The Mathematical Association of Victoria is a not-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 and sponsorship revenue is recognised in the statement of profit or loss and other comprehensive income when it is controlled. When there are conditions attached to grant revenue relating to the use of those grants for specific purposes it is recognised in the statement of financial position as a liability until such conditions are met or services provided.

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.

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

The Mathematical Association of Victoria

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Notes to the Financial Statements For the Year Ended 31 January 2018

2 Summary of Significant Accounting Policies (continued)

(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.

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	Depreciation rate
Buildings	2-12%
Plant and Equipment	12-25%
Furniture, Fixtures and Fittings	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.

The Mathematical Association of Victoria

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Notes to the Financial Statements

For the Year Ended 31 January 2018

2 Summary of Significant Accounting Policies (continued)

(e) Property, plant and equipment (continued)

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.

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.

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Notes to the Financial Statements

For the Year Ended 31 January 2018

2 Summary of Significant Accounting Policies (continued)

(f) Financial instruments (continued)

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.

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.

The Mathematical Association of Victoria

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Notes to the Financial Statements

For the Year Ended 31 January 2018

2 Summary of Significant Accounting Policies (continued)

(f) Financial instruments (continued)

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.

(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.

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Notes to the Financial Statements

For the Year Ended 31 January 2018

2 Summary of Significant Accounting Policies (continued)

(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.

(l) 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 2018, the adoption of these standards has not caused any material adjustments to the reported financial position, performance or cash flow of the Company.

The Mathematical Association of Victoria

ACN 004 892 755

Notes to the Financial Statements For the Year Ended 31 January 2018

2 Summary of Significant Accounting Policies (continued)

(o) New Accounting Standards and Interpretations

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	Effective date for entity	Requirements	Impact
AASB 9 Financial Instruments and amending standards	31 January 2019	<p>Significant revisions to the classification and measurement of financial assets, reducing the number of categories and simplifying 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.</p> <p>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.</p>	The impact of AASB 9 has not yet been quantified.

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Notes to the Financial Statements For the Year Ended 31 January 2018

2 Summary of Significant Accounting Policies (continued)

(o) New Accounting Standards and Interpretations (continued)

Standard Name	Effective date for entity	Requirements	Impact
AASB 15 Revenue from Contracts with Customers and AASB 1058 Income of NFP Entities	31 January 2020	<p>AASB 15 introduces a five step process for revenue recognition with the core principle of the new Standard being for entities to recognise revenue to depict the 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.</p> <p>Accounting policy changes will arise in timing of revenue recognition, treatment of contracts costs and contracts which contain a financing element.</p> <p>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.</p>	The impact of AASB 15 has not yet been quantified.
AASB 16 Leases	31 January 2020	<p>AASB 16 will cause the majority of leases of an entity to be brought onto the statement of financial position. There are limited exceptions relating to short-term 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.</p> <p>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.</p>	The impact of AASB 16 has not yet been quantified.

The Mathematical Association of Victoria

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Notes to the Financial Statements

For the Year Ended 31 January 2018

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

	2018	2017
	\$	\$
Revenue		
- membership fees	343,123	330,168
- seminars and conferences	545,291	477,490
- student activities	195,160	147,806
- publications and solutions	300,738	278,517
- professional development	486,911	332,112
- grants and sponsorships	406,519	107,299
	<u>2,277,742</u>	<u>1,673,392</u>
Other Income		
- interest	2,840	2,173
- miscellaneous	17,779	20,437
	<u>20,619</u>	<u>22,610</u>
Total Revenue and Other Income	<u><u>2,298,361</u></u>	<u><u>1,696,002</u></u>

5 Result for the Year

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

Other expenses:		
Provision for long service leave	6,939	(36,243)
Depreciation and amortisation expense		
- buildings	5,621	5,862
- plant and equipment, furniture and fittings	9,857	6,323
- software	64,086	86,822
Auditors remuneration		
- auditing the accounts	9,510	9,420

The Mathematical Association of Victoria

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Notes to the Financial Statements For the Year Ended 31 January 2018

6 Cash and Cash Equivalents

	2018	2017
	\$	\$
Cash on hand	800	800
Bank balances	457,859	385,907
	<u>458,659</u>	<u>386,707</u>

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	<u>458,659</u>	<u>386,707</u>
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7 Trade and Other Receivables

CURRENT

Trade receivables	111,839	126,854
Provision for impairment	-	-
	<u>111,839</u>	<u>126,854</u>
Other receivables	23,419	-
	<u>135,258</u>	<u>126,854</u>

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

CURRENT

At cost:

Publications	<u>30,163</u>	<u>42,298</u>
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The Mathematical Association of Victoria

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Notes to the Financial Statements For the Year Ended 31 January 2018

9 Property, plant and equipment

	2018	2017
	\$	\$
LAND AND BUILDINGS		
Freehold land		
At directors' valuation	<u>1,346,531</u>	1,346,531
Buildings		
At cost	479,270	479,270
Accumulated depreciation	<u>(192,718)</u>	(187,097)
Total buildings	<u>286,552</u>	292,173
Total land and buildings	<u>1,633,083</u>	1,638,704
PLANT AND EQUIPMENT		
Plant and equipment, furniture and fittings		
At cost	323,793	298,582
Accumulated depreciation	<u>(293,572)</u>	(283,715)
Total plant and equipment, furniture and fittings	<u>30,221</u>	14,867
Total property, plant and equipment	<u><u>1,663,304</u></u>	<u>1,653,571</u>

The Company's land and buildings at 61 Blyth Street, Brunswick were valued at 21 August 2017 by the directors. Valuations were made using the price that would be received to sell the asset in an orderly transaction between market participants at the the measurement date. The revaluation surplus was credited to an asset revaluation reserve in shareholders' equity.

10 Intangible Assets

Software		
Cost	590,866	590,866
Accumulated amortisation	<u>(541,074)</u>	(476,988)
Net carrying value	<u><u>49,792</u></u>	<u>113,878</u>

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Notes to the Financial Statements For the Year Ended 31 January 2018

11 Other Assets

	2018	2017
	\$	\$
CURRENT		
Prepayments	64,998	27,370
Accrued income	37,500	20,000
	<u>102,498</u>	<u>47,370</u>

12 Trade and Other Payables

CURRENT		
Unsecured liabilities		
Trade payables	108,540	230,211
GST payable	49,989	32,134
Accrued expenses	47,181	13,184
Other liabilities	34,307	43,467
	<u>240,017</u>	<u>318,996</u>

13 Other Liabilities

CURRENT		
Memberships received in advance (net of subscriptions)	175,824	187,017
	<u>175,824</u>	<u>187,017</u>

14 Employee Benefits

Current liabilities		
Annual leave	74,531	55,588
Long service leave	76,697	74,942
	<u>151,228</u>	<u>130,530</u>

15 Reserves

Asset revaluation reserve		
Opening balance	1,346,531	1,321,236
Revaluation increment	-	25,295
	<u>1,346,531</u>	<u>1,346,531</u>

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 2018 the number of members was 1,346 (2017: 1,384).

The Mathematical Association of Victoria

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Notes to the Financial Statements For the Year Ended 31 January 2018

17 Contingencies

In the opinion of the Directors, the Company did not have any contingencies at 31 January 2018 (31 January 2017:None).

18 Cash Flow Information

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

	2018	2017
	\$	\$
Profit/(loss) for the year	133,286	32,902
Non-cash flows in profit/(loss):		
- depreciation and amortisation	79,564	99,007
Changes in assets and liabilities:		
- (increase)/decrease in trade and other receivables	(8,404)	6,371
- (increase)/decrease in prepayments	(55,128)	(28,163)
- (increase)/decrease in inventories	12,135	11,011
- increase/(decrease) in income in advance	(11,193)	(1,093)
- increase/(decrease) in trade and other payables	(78,979)	(15,413)
- increase/(decrease) in employee benefits	25,882	(36,073)
Cashflow from operating activities	<u>97,163</u>	<u>68,549</u>

19 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

The Mathematical Association of Victoria

ACN 004 892 755

Directors' Declaration

In the directors' opinion:

1. 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 2018 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
Mr Juan Ospina Leon

Dated this 17th day of April 2018

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 2018, 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 2018 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.



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

Nexia Melbourne Audit Pty Ltd

A. Wehrens

Andrew S. Wehrens
Director

Melbourne

Dated this *17th* day of April 2018



Disclaimer of Opinion on Detailed income and expenditure statement for the year ended 31 January 2018

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 2018.

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.



Nexia Melbourne Audit Pty Ltd

Melbourne

Dated this *17th* day of April 2018



Andrew S. Wehrens
Director

The Mathematical Association of Victoria

ACN 004 892 755

For the Year Ended 31 January 2018

Detailed Income Statement

	2018	2017
	\$	\$
Income		
Membership fees	343,123	330,168
Conference - December	545,291	477,490
Student activities	195,160	147,806
Publications and solutions	300,738	278,517
Services revenue	486,911	332,112
Grants and sponsorships	406,519	107,299
Interest received	2,840	2,173
Miscellaneous income	17,779	20,437
Total income	2,298,361	1,696,002
Less: Expenses		
Advertising and promotion	52,797	62,730
Affiliation fees	45,925	50,858
Auditors remuneration	9,510	9,420
Bank charges	4,913	4,645
Catering expenses	110,306	87,059
Cleaning	7,578	8,240
Consultants and presenters	545,353	273,732
Depreciation and amortisation	79,564	99,007
Equipment rental	39,164	43,069
Facilities - external	55,846	47,451
Heat, light and power	4,171	4,183
Courier service	2,089	518
Insurance	13,498	13,417
Legal fees	547	8,999
Long service leave	6,939	(36,243)
Office expenses	31,417	33,310
Postage and freight	23,451	21,752
Publications, printing and stationery	182,721	121,752
Rates and taxes	5,160	5,043
Repairs and maintenance	8,415	3,148
Royalties and authors fees	79,239	87,939
Wages	692,633	550,046
Staff training	9,713	-
Staff and members amenities	5,055	8,037
Subscriptions	3,454	2,197
Superannuation contributions	54,471	56,639
Telephone and fax	14,714	24,833
Travelling and accommodation	72,697	67,885
Workcover	3,735	3,434
Total Expenses	2,165,075	1,663,100
Profit from ordinary activities	133,286	32,902



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