

FYiMaths Newsletter No. 1

FYiMaths Project

a joint project by the
University of Melbourne,
University of Adelaide,
University of Sydney and
Curtin University.

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Welcome

This is the first newsletter for the First Year in Maths (FYiMaths) project. We hope to publish a brief newsletter each month to update you on the project activities and other information in the area of first-year maths that may be of interest to you. We would like the newsletter to develop into a point of contact for network members and welcome contributions from you.

In the next 18 months we will be interviewing academics in coordinating and teaching roles, conducting workshops, developing resources and a website. The information we collect about the role of academics coordinating first-year mathematics programs and courses will be used to develop case studies and practical resources. We hope that by building links between individuals, sharing information and experiences, we can lay the foundations for a community of practice for the teaching of first-year mathematics and statistics.

June Workshop

On Friday 21st June at University of Melbourne we welcomed 30 academics representing 21 institutions from ACT, NSW, QLD, WA, Tasmania and Victoria.

Participants held a wide variety of roles including first-year coordinators, maths support centre coordinators, lecturers, tutors, maths discipline heads, undergraduate coordinators and course coordinators.



The workshop involved plenty of enthusiastic discussion and reflection on the main challenges facing academics teaching first-year mathematics and statistics programs. The biggest challenges identified were:

- How to teach and support the broad range of backgrounds and levels of ability in first-year students, particularly when students from different programs are combined in 'service' courses. A key element of this is the 'assumed knowledge' of first-years and what they have retained from high school.
- How to engage students with limited interest in maths or who find maths difficult or daunting.
- Using innovative approaches and new technology to teach maths (and having the time and resources to investigate this)
- Finding time and having the access to ideas and strategies for enhancing teaching and assessment, particularly for students with difficulties.

What would you like?

We would like to know what type of workshop you would find most useful and practical. eg. A local half-day workshop focusing on one key issue, annual workshop or a combination of these?

Please email your suggestions

- How to engage students with limited interest in maths or who find maths difficult or daunting.

Participants shared their experiences in trialing different approaches to tackling these issues, the pitfalls, successes and the process for implementing change in their programs and courses. It was clear that while institutions faced their own particular issues, they shared concerns about the level and depth of assumed knowledge in first-year students, low engagement of many students in maths courses, workload pressures. Above all they shared a passion for teaching mathematics and improving student outcomes.

Feedback strongly supported an annual workshop of this sort and many sought further contact with other academics

in first-year mathematics. We are in the process of building a website with facilities for online discussion, sharing of resources and to share findings from our project.

Interviews

So far we have conducted interviews in Queensland, Victoria and New South Wales. Those that we have interviewed have been generous with their time and provided valuable insights into their approaches to teaching maths to a wide range of students in first-year.

We have found so far.....for many the biggest challenges are in meeting the needs of the large numbers of students in 'service' subjects. It is in these courses that academics face the widest disparity in abilities and also struggle with the disengagement or maths 'phobia' of many students. While many institutions have developed maths support centres, online resources and innovative teaching approaches, many find that the diversity of students means that no one measure fits all students. Many institutions review and modify their course content, support programs and teaching on a regular basis in an effort to better meet students' needs. Some highlighted regular liaison with the discipline programs they teach 'for' as crucial.

We will be contacting maths departments in the coming weeks to seek more interviews. If you don't hear from us and would like to participate, please contact joann.cattlin@unimelb.edu.au

AMSI – Supporting Australian Mathematics (SAM) resources

AMSI has just launched new online materials to support implementation of the Australian Curriculum www.amsi.org.au/SAM-senioryears. Developed in conjunction with Education Services Australia, these materials add to AMSI's current suite of teacher modules and careers materials. Year 11/12 resources will be of interest to those teaching in transition programs, but also to anyone who would like more information on curriculum content in senior years.



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The project's formal title is "Building leadership capacity in University first-year learning and teaching in the mathematical sciences".

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