

YuMi Deadly Centre **People**

Director

Professor Tom Cooper

Academic researchers

Associate Professor Grace Sarra, Professor Lyn English, Dr David Nutchey

Research and administrative team

YDC's research and administrative team supports the Director and academic researchers with the centre's projects. In 2010 and again in 2016 the YDC staff team received a Vice-Chancellor's Award for Excellence in recognition of exceptional sustained performance and outstanding achievement.

Our leading academic researchers, research associates and administrative team bring a powerful blend of expertise to the centre's activities. To find out more about our team, visit ydc.qut.edu.au/about/people/



Evidence of effectiveness of YuMi Deadly Maths

YDC has been providing training in YDM since 2010. YDM training has made a strong difference to mathematics teaching and learning in a number of schools, including five YDM Centre for Excellence schools located in Queensland and Victoria. If you are interested in YDM and would like to see it in practice in schools, please contact us. We can provide more information about the evidence of effectiveness of YDM and put you in touch with these schools.

Aims of the YuMi Deadly Centre

The YuMi Deadly Centre is dedicated to enhancing the learning of Indigenous and non-Indigenous children, young people and adults to improve their opportunities for further education, training and employment, and to equip them for lifelong learning

Its specific aims are to:

1. facilitate whole school change that builds pride and positive identity, emphasises high expectations, and strengthens relationships with community
2. train and support school staff to teach effectively
3. develop innovative resources and processes to strengthen teaching and learning
4. develop decolonising research methodologies to empower the researched
5. support research capacity, particularly at higher degree research level.



YuMiDeadly
*Growing community
through education*

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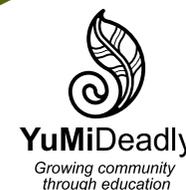
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YuMi Deadly Centre

School of Curriculum
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QUT Kelvin Grove



About the **YuMi Deadly Centre**

The **YuMi Deadly Centre (YDC)** undertakes projects and activities to enhance the learning of **all students** with a particular emphasis on Aboriginal, Torres Strait Islander, minority and low-SES students. It advocates teaching in a manner that is culturally empowering, builds pride and positive identity, and sustains community links.

YDC researchers work collaboratively with schools, organisations and communities to run projects in **professional learning** (improving teaching to enhance learning), **student learning** (researching the learning of students), **vocational learning** (enhancing VET learning and employment outcomes) and **community learning** (supporting parents with teaching their children).

At present, YDC projects are predominantly in mathematics and are based on a pedagogy called **YuMi Deadly Maths (YDM)**. They cover effective teaching, remediation by acceleration, and enrichment and extension.



Partner with us in YuMi Deadly

YDC's current projects are based on partnerships with schools, educational systems and government organisations, built around collaborations designed to benefit mathematics teaching and learning within these organisations.

YDC highly values these partnerships and is guided by an advisory committee comprising representatives from some of our partner organisations. We actively seek and encourage new partnerships with government agencies, non-profit organisations, youth sector agencies, private enterprise and other organisations.

If you would like to partner with us in a project or work with us to develop a project specifically for your situation, please talk to us.

YuMi Deadly **Projects**

PROFESSIONAL LEARNING PROJECTS

YuMi Deadly Maths Teacher Development Training (YDM TDT) (2012 onwards)

This project trials and refines the YDM pedagogical approach in terms of its effectiveness in improving mathematics teaching and learning in relation to characteristics of schools, teachers and students. Funded by schools, YDM TDT provides PD, resources and online support to build capacity of teachers and schools to teach mathematics. It is based on the training given in the TIME project (funded by Queensland DET, 2010–12) to over 100 schools and provides 12 days of PD (usually four × three-day blocks) across two years.

For efficiency, schools are grouped into clusters based around a central location to which all can travel for PD. Schools can join existing clusters or make new clusters. YDC is happy to set up and support clusters across Queensland and across Australia.

Purposeful Rich Indigenous Mathematics Education (PRIME) Futures (2015–19)

This project delivers the mathematics element of an Indigenous STEM Education project managed by CSIRO in partnership with the BHP Billiton Foundation. PRIME Futures has been subcontracted to YDC and targets Foundation to Year 9 students in mainstream metropolitan and regional schools, using the YuMi Deadly Maths (YDM) approach to improve student outcomes in mathematics.

At least 60 schools across Australia with relatively high Indigenous student populations will be involved in the project across four years, working together in 10 clusters of at least six schools each. The project provides each cluster with 15 days (five × three-day blocks) of PD across 2.5 years, plus school visits following each block of PD to reinforce in-school trialling and training. The final PD will be driven by the needs of each cluster and is designed to support sustainability of YDM in the PRIME Futures schools to the end of the project in 2019 and beyond.

STUDENT LEARNING PROJECTS

Accelerated Inclusive Mathematics (AIM) (2013 onwards)

This project trials and refines a YDM-based remedial pedagogical approach for underachieving students. It studies how mathematical performance of these students can be accelerated across Years 7–9 by using a vertical curriculum to promote entry into Year 10 mathematics offerings. Funded by schools, AIM is based on 24 modules developed in the Accelerated Indigenous Mathematics project (funded by DEEWR, 2010–13).

YuMi Deadly **Projects** (continued)

Accelerated Inclusive Mathematics Early Understandings (AIM EU) (2015 onwards)

This project is partnering with a primary school in North Queensland in 2015 and 2016 to develop a new set of nine AIM-style modules covering Prep to Year 2 material to improve Year 3 outcomes. The nine AIM EU modules include Pre-Foundational to Year 2 units in Number, Algebra and Operations, covering counting, patterning, functions and equations, place value, quantity, thinking and solving, meaning and operating, calculating, and fractions. After trialling and refinement in this project, the modules will be available for use in schools.

XLR8 Mathematics (2013–16 and beyond)

This ARC Linkage funded project studied the effectiveness of a YDM-based mathematics acceleration program aimed at improving the understanding of underachieving low-SES students in two years (Years 8–9) to enable access to mainstream mathematics classes. The XLR8 modules developed for this project integrate horizontally and vertically and will be available for use in other projects after the XLR8 project ends in 2016.

Mathematicians in Training Initiative (MITI Maths) (2014 onwards)

The MITI project trials and refines a YDM-based enrichment and extension pedagogy that aims to deepen understanding of powerful mathematics to increase participation in high-level mathematics subjects and university entrance for STEM careers. Funded by schools, MITI's first stage is based on teaching with investigations and planning instruction to ensure smooth sequencing from Year 7 to Year 12. The second stage focuses on digital applications and the use of business/industry/STEM contexts for Years 7–12.

Integrated Secondary Schools/Integrated School Mathematics (ISS/ISM) (2013 onwards)

These large-scale projects to renew all teaching of mathematics are funded by schools and involve two or more of YDM TDT, AIM, XLR8 and MITI integrated together into a cohesive program that suits each school.

VOCATIONAL/COMMUNITY LEARNING PROJECTS

Please contact YDC if you are interested in partnering in a project.